



MASSACHUSETTS DEPARTMENT OF TRANSPORTATION

INTEREST RATE SWAP MANAGEMENT POLICY

April 23, 2018

1. Purpose

The purpose of this policy is to provide a framework for the use and effective management of interest rate swaps and other derivative products including caps, floors, collars, options and other hedges or derivative financial products (collectively referred to herein as “swaps”) of the Massachusetts Department of Transportation (“MassDOT”) as related to MassDOT’s outstanding bonds and consistent with Chapter 6C of the Massachusetts General Laws (the “Enabling Act”) and other applicable law and the terms of the relevant trust agreements. The policy is intended to serve as a source of information and guidance for the ongoing management of existing swaps and when amending, terminating, or entering into a new swap for the professional staff of MassDOT, its Board of Directors, and the bond rating agencies, as well as the general public and financial institutions doing business with MassDOT.

2. Scope

This policy describes the circumstances and methods by which swaps may be used or amended, the guidelines to be employed when swaps are used or amended, and the parties responsible for monitoring these policies. The policy also describes the internal management and external professional services necessary to support MassDOT’s swap portfolio and the process which will be followed to procure these services. Although MassDOT will not be issuing additional new money bonds, MassDOT may issue refunding bonds and will monitor and proactively manage its existing swap portfolio, including amendments, termination, or the replacement of existing swaps and possible new swaps, when, and if, appropriate. This policy addresses the process and controls to be utilized in the performance of the related tasks.

3. Authority

MassDOT’s legal authority for using swaps is consistent with the Enabling Act and other applicable law and the terms of the relevant trust agreements.

MassDOT was created in 2009, by Chapter 25 of the Acts of 2009 (as amended, the “Transportation Reform Act”) and is a body politic and corporate and a public instrumentality of the Commonwealth of Massachusetts (the “Commonwealth”). MassDOT is governed by an eleven-member board (the “Board of Directors” or the “Board”) appointed by the Governor. The Governor appoints a Secretary of MassDOT, who serves as MassDOT’s Chief Executive Officer and is a member of the Board.

The Transportation Reform Act provided for the dissolution of the Massachusetts Turnpike Authority (the “Authority”) and the transfer of its assets, liabilities, obligations and debt, including debt outstanding and associated derivative contracts under its trust agreements, to MassDOT. MassDOT assumed the rights, powers and duties of the Authority effective November 1, 2009, in accordance with the Transportation Reform Act. Five interest rates swaps with UBS AG in an aggregate notional amount of \$800 million (the “UBS Swaps”) and one basis swap with JP Morgan Chase bank NA in the notional amount of \$100 million (the “JPM

Swap”) transferred from the Authority to MassDOT. The UBS Swaps hedge nine series of MassDOT’s variable rate bonds totaling \$800 million.

The Authority issued bonds under two separate trust agreements; the Metropolitan Highway System Trust Agreement (the “MHS Trust Agreement”) and the Western Turnpike Trust Agreement (the “WT Trust Agreement”). No bonds remain outstanding under the WT Trust Agreement. The Metropolitan Highway System (the “MHS”) and the Western Turnpike (the “WT”) are assets of MassDOT and are housed within its Highways Division. Bonds issued under the MHS Trust Agreement financed capital projects and refinanced outstanding bonds related to the MHS. Bonds issued under the WT Trust Agreement financed capital projects and refinanced outstanding bonds related to the WT. Only revenues from the Accepted Metropolitan Highway System (as defined in the MHS Trust Agreement) are pledged under the MHS Trust Agreement as security for the bonds issued thereunder.

Under the Enabling Act, MassDOT’s authority to issue debt for purposes related to the MHS and the WT is limited to the issuance of refunding bonds. This policy provides guidelines for effective management of its swap portfolio within MassDOT’s legal authority.

There are eleven members of the Board of Directors. Ten members of the Board are appointed by the Governor and the Secretary serves ex officio as chair. Four members will serve terms coterminous with the Governor, while the remaining six members will be appointed to four-year terms and are eligible for reappointment. Three members of the Board serve on the Finance and Audit Committee. The Finance and Audit Committee reviews the issuance and management of MassDOT debt and interest rate swap agreements, including the procurement of credit and liquidity agreements or direct purchase agreements to support variable rate bonds, remarketing agents, financial advisors, legal counsel, and other services and agreements related to MassDOT’s ongoing debt portfolio. The Board of Directors authorizes the issuance or reissuance of, or amendments to, outstanding bonds, and approves contracts as needed to manage MassDOT’s debt and as required in compliance with the Enabling Act and Board regulations.

The Secretary and Chief Executive Officer of MassDOT has overall responsibility for the day-to-day operations and management of MassDOT. Management of MassDOT’s finances is delegated to the Chief Financial Officer who is primarily responsible for debt management. The Chief Financial Officer is also supported by the Deputy Chief Financial Officer and the Director of Revenue and Debt Management. The Director of Revenue and Debt Management has a staff that oversees principal and interest payments on debt as well as the reconciliation of all swap settlements.

4. Permitted Uses

As previously mentioned, MassDOT is precluded from issuing new money debt under existing bond indentures and is limited to the issuance of refunding bonds and therefore does not plan to add new swaps to its existing portfolio, although it may consider additional swaps with

respect to its outstanding bonds or to replace any of its existing swaps. This policy recognizes that the derivatives and associated financial markets, applicable laws, increasing compliance regulations, and best practices guidelines are continuously evolving. Among the strategies which MassDOT may consider - as applicable in the context of its existing swap portfolio and current debt issuance authority - amending, novating, replacing, or otherwise entering into swaps include:

- (i) Reducing the cost of fixed or floating rate debt through swaps and related products to create “synthetic” fixed or floating rate debt;
- (ii) Managing exposure to floating and fixed interest rates;
- (iii) Hedging floating rate risk;
- (iv) Locking in fixed rates in current markets for use at a later date;
- (v) Managing MassDOT’s exposure to the risk of changes in the legal and regulatory treatment of tax-exempt bonds, including changes in federal marginal tax rates and other changes in tax laws that may affect the value of tax-exempt bonds relative to other investment alternatives;
- (vi) Managing MassDOT’s credit exposure to financial institutions and other entities through the use of offsetting swaps and other credit management products, and;
- (vii) Other applications to enable MassDOT to lower costs or strengthen MassDOT’s balance sheet;
- (viii) Terminating or partially terminating existing swaps in order to diminish various risks associated with MassDOT’s debt and swap portfolios, for economic purposes, or to realign hedge effectiveness with respect to the variable rate bonds.

MassDOT will not enter into swaps for purely speculative purposes, if the swap will expose MassDOT to extraordinary leverage or risk, or if MassDOT is unable to reasonably anticipate that it will have sufficient liquidity or financing capacity to terminate the swap at market rates (if it should need to) or if there is insufficient pricing data available to allow MassDOT and its advisors to adequately value the swap on an ongoing basis.

5. Procedure

When amending, terminating, or entering into new swaps MassDOT shall consider the following:

- (i) The appropriateness of the transaction for MassDOT based on the balance of risks and anticipated rewards presented by the proposed transaction, including a detailed description of the transactional structure, a description of the risks it presents, and risk mitigation measures, where applicable;
- (ii) The legal framework for the transaction within the context of Massachusetts statutes, MassDOT authorization, and relevant indenture and contractual requirements (including those contained in credit or liquidity agreements), as well as any implications of the transaction under federal tax regulations;

- (iii) The potential effects that the transaction may have on the credit ratings of any MassDOT obligations assigned by the rating agencies;
- (iv) The potential impact of the transaction on any areas where MassDOT's capacity is limited, now or in the future, including the use of variable-rate debt, bank credit or liquidity facilities, direct purchase obligations, and bond insurance;
- (v) The administrative burden that may be imposed by the transaction, including accounting and financial reporting requirements; and
- (vi) Other implications of the proposed transaction as warranted.

6. Counterparty Credit Standards

Many derivative products can create a continuing exposure to the creditworthiness of financial institutions that serve as counterparties on swaps. MassDOT inherited from the Authority five fixed-to-floating interest rate swaps with an aggregate notional value of \$800 million with UBS AG as counterparty, and one basis swap with a notional value of \$100 million with JP Morgan Chase NA as counterparty. To protect MassDOT's interests, MassDOT has, and will adhere to, the following standards when considering the amendment, novation, termination, or replacement of an existing swap or entering into new swaps as applicable in the context of its existing swap portfolio and current debt issuance authority:

- (i) *Use of highly-rated counterparties:* Standards of creditworthiness, as measured by credit ratings, will determine eligible counterparties. Differing standards may be employed depending on the term, size, and interest-rate sensitivity of a transaction, types of counterparty, and potential for impact on MassDOT's credit ratings. In cases where the counterparty's obligations are rated based on a guarantee or specialized structure to achieve the required credit rating, MassDOT shall thoroughly investigate the nature and legal structure of the guarantee or structure in order to determine that it fully meets MassDOT's requirements.
- (ii) *Collateralization on downgrade:* If a counterparty's credit rating is downgraded below agreed upon levels, MassDOT shall require that its exposure to the counterparty be collateralized in accordance with existing agreements. Any new agreements will be subject to review by MassDOT's swap advisor and bond counsel and will contain collateral provisions consistent with industry standards and in the best interests of MassDOT.
- (iii) *Termination:* If a counterparty's credit rating is downgraded below a second (lower) threshold, even with collateralization, MassDOT may exercise a right to terminate the transaction prior to its scheduled termination date. MassDOT will seek to require, whenever possible, that terminations triggered by a counterparty credit rating downgrade will occur on the side of the bid-offered spread which is most beneficial, and which would allow MassDOT to replace the downgraded party with another suitable counterparty at no out-of-pocket cost.
- (iv) *Notice:* MassDOT's swap counterparties will be required to notify MassDOT in the event a credit rating agency takes negative action with regard to the

counterparty's credit rating, including both an actual downgrading of the credit rating as well as the publication of a notice by a rating agency that the counterparty's rating is in jeopardy of a downgrading (i.e., being placed on Standard & Poor's CreditWatch, Moody's Watch list or Fitch's rating watch, or being assigned a negative outlook by any of these rating agencies)

Recognizing the counterparty concentration in its current swap portfolio, MassDOT will seek opportunities in the future to diversify its exposure to excessive concentration to a single counterparty or guarantor. Exposure to all counterparties will be measured based on the termination value of any swap contracts entered into with the counterparty, as well as such other measurements as MassDOT may deem suitable to measure potential changes in exposure, such as "value at risk" or "peak exposure." Termination value will be determined at least quarterly, based on a mark-to-market calculation of the cost of terminating the swap contract given the market conditions on the valuation date. Aggregate swap termination value for each counterparty should take into account netting of any offsetting transactions (i.e., fixed-to-floating vs. floating-to-fixed). MassDOT will require counterparties to provide regular mark-to-market valuations of swaps entered into with MassDOT and will also seek independent valuations from its swap advisor.

7. Procurement

Although MassDOT is precluded from issuing new debt except for the purpose of refunding existing bonds and does not expect to enter into any new swaps, in the event MassDOT were to amend a swap, novate a swap, procure a new swap, or seek a replacement counterparty for an existing swap, MassDOT may choose counterparties for entering into swaps on a competitive basis.

In all transactions, regardless of procurement method, MassDOT will abide by all regulations as described in Section 12. MassDOT will secure professional advice from an independent swap advisor and bond counsel to assist in the process of structuring, documenting, and pricing the transaction and expect to request that its independent swap advisor provide the necessary documentation that a fair market value price was obtained. In all transactions, regardless of procurement method, the counterparty shall represent that no payments were made to third parties (including lobbyists, consultants and attorneys) who had any involvement in assisting the counterparty in securing business with MassDOT.

8. Documentation Guidelines

MassDOT has and will continue to use one of the forms of the International Swaps and Derivatives Association, Inc. ("ISDA") Master Agreement, including any Schedules to the Master Agreement, Confirmations, and Credit Support Annexes, as a framework for swap documentation. MassDOT will adhere to applicable protocols to comply with regulatory requirements imposed under Title VII of the Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank"). The swap agreement between MassDOT and each counterparty

includes payment, term, security, collateral, default, remedy, termination, and other terms, conditions, provisions and safeguards as MassDOT, in consultation with its swap advisor and legal counsel, deems necessary or desirable.

Subject to the provisions contained herein, MassDOT and its existing counterparties will abide by the terms of the existing swap agreements. The terms of any future swaps or amendment to an existing agreement shall, when possible and in the best interests of MassDOT, adhere to the following guidelines:

- (i) Downgrade provisions triggering termination shall be reflective of the relative credit strength of the applicable MassDOT credit in comparison with the swap provider. This comparison should give weight to the prevailing greater credit strength of public sector entities as compared with private sector financial institutions;
- (ii) MassDOT has and will strive to minimize cross default provisions. The specific indebtedness related to credit events in any swap agreement should be narrowly defined and refers only to indebtedness of MassDOT that could have a materially adverse effect on its ability to perform its obligations under the swap contract;
- (iii) Collateral thresholds for the swap provider should be set on a sliding scale reflective of credit ratings. Collateral requirements should be established and based upon the credit ratings of the swap provider or its guarantor;
- (iv) Eligible collateral should generally be limited to Treasuries and obligations of federal agencies where the principal and interest are guaranteed by the United States. At the discretion of MassDOT and in accordance with applicable swap covenants, other highly liquid, high quality obligations of federal agencies, not secured by the full faith and credit of the U.S. government, may be used as collateral;
- (v) The term of the swap entered into shall not extend beyond the final maturity date of the related bonds hedged by the agreement;
- (vi) The total notional amount of the swap shall not exceed the principal amount of the hedged bonds reduced by the amortization schedule;
- (vii) In connection with the execution of a swap, the Chief Financial Officer for MassDOT shall certify as to the bond issuance with which a swap transaction is identified;
- (viii) In certain limited circumstances, MassDOT may modify or take other action with respect to existing swap transactions as may be necessary, including without limitation, transferring the identification of any swap transaction from one bond issue to another; and
- (ix) MassDOT shall have the right to optionally terminate a swap agreement “at market,” at any time over the term of the agreement. The counterparty generally shall not have an optional termination right.

9. Risk Management

Because of the size and complexity of the assets and liabilities of MassDOT and its established financial systems and controls, MassDOT will manage the risks and rewards of the swap program alongside its overall financial risks and rewards. As part of the risk management process, MassDOT and its professional financial and swap advisors will evaluate the aggregate exposure in its swap portfolio as measured by value at risk, peak exposure, and/or maximum potential exposure using generally accepted market valuation practices. The risks MassDOT will monitor, evaluate, and seek to mitigate include:

- (i) *Counterparty (concentration and credit) risk.* MassDOT will seek to diversify its exposure to counterparties across its swap portfolio whenever possible, subject to the terms of its existing swap agreements, including swap counterparties, credit providers on variable rate debt, investment providers, and other exposures as may be incurred when managing the financial operations of MassDOT. MassDOT will also seek to impose minimum credit rating standards and require protective provisions in its swap agreements.
- (ii) *Termination risk.* A termination payment to or from MassDOT may be required in the event of termination of a swap agreement due to an optional termination, a termination event or an event of default. Termination amounts shall be calculated as provided under existing swap documents or, for any new swap agreements, pursuant to Market Quotation, Second Method methodology within the applicable ISDA agreement. Notwithstanding the foregoing, in general MassDOT will seek to avoid making an out-of-pocket termination payment to a counterparty that has defaulted under the agreement. Prior to making any such termination payment, the Chief Financial Officer shall evaluate whether it is financially advantageous for MassDOT to obtain a replacement counterparty to avoid making such termination payment from funds on hand, to finance the termination payment through a long-term financing product, or use other techniques to avoid having the counterparty's default create an undesired impact on MassDOT's finances.
- (iii) *Interest rate risk.* Prior to taking on additional interest rate risk, MassDOT will measure its capacity for floating rate exposure by factoring in the percentage of variable rate debt in its existing portfolio and an analysis of its short and long term investment assets. MassDOT will seek to maintain or reduce interest rate risk when structuring or amending its debt and swap portfolio.
- (iv) *Basis risk.* MassDOT will measure and review the historic variation between the floating rate index used in each swap and the underlying floating rate debt it is hedging. The degree of risks in any additional basis risk should be evaluated in comparison with the degree of benefit provided. MassDOT will consider mitigation techniques as warranted, including maintaining a reserve fund to provide a cushion between the floating rate index on the swap and the expected trading level of the floating rate debt. MassDOT will periodically evaluate the

reserves available to fund any future basis liability with each swap in accordance with the related trust agreements, as applicable.

- (v) *Rollover risk.* As it relates to each swap, MassDOT will evaluate the prospect of limited availability or unavailability of bank facilities based on the underlying credit of the associated debt as well as the general market for liquidity and credit facilities and other variable rate products. MassDOT may use any of the following mitigation techniques: purchasing longer term facilities for credits where rollover risk is greatest; including alternative floating rate modes and structures as allowed in the applicable bond documents; and staggering the termination dates of different liquidity and credit facilities to diversify the points of market re-entry.
- (vi) *Pricing risk.* Prior to entering into a swap, MassDOT will make a determination that the transaction can be priced with reasonable transparency and confidence. MassDOT will not enter into overly complex or illiquid transactions where competitive pricing cannot be ascertained. As a general rule, MassDOT will use a competitive process for entering into new swap contracts.

MassDOT will measure and evaluate the effect of leverage contained within any swap on the magnitude of any of the above-mentioned risks.

10. Monitoring and Reporting

MassDOT will engage a professional swap advisor to monitor its swap portfolio and counterparties and regularly report on the financial implications of the portfolio. In addition to quarterly valuations and interim reporting as events warrant, an annual report will be generated by the swap advisor and MassDOT including the following information:

- (i) A summary of key terms of the agreements, including notional amounts, interest rates, maturity and method of procurement, including any changes to swap agreements since the last reporting period;
- (ii) The mark-to-market value of its swaps, as measured by the economic cost or benefit of terminating outstanding contracts at specified intervals;
- (iii) The amount of exposure that MassDOT has to each specific counterparty, as measured by aggregate mark-to-market value, netted for offsetting transactions;
- (iv) The credit ratings of each counterparty (or guarantor, if applicable) and any changes in the credit rating since the last reporting period; and
- (v) Any collateral posting required under each swap agreement.

MassDOT shall file all necessary documentation to comply with ongoing swap reporting requirements under applicable law and will perform such monitoring and reporting as is required by the rating agencies.

MassDOT will ensure that it reflects the use of swaps on its financial statements in accordance with GASB requirements, including Technical Bulletin No. 2003-1, and GASB Statements 53, 64, and 72, as applicable. The disclosure requirements include:

- Objective of the Swaps
- A Summary of Key Terms
- Name, Description and Credit Rating of Counterparty/Guarantor
- Mark-to-Market Value at both the contractual rate and on-market rate
- Debt Issued in Association with the Swap
- Peak Exposure Risk
- Measurement of Hedge Effectiveness

11. Governing Law and Jurisdiction

Swap agreements shall be governed by the laws of the Commonwealth or the State of New York. Except when deemed otherwise acceptable or appropriate in light of the overall transaction, jurisdiction for any claims against MassDOT shall be limited to Massachusetts courts.

12. Dodd- Frank Act and Regulatory Compliance

MassDOT will comply with all federal regulatory requirements promulgated under the Dodd Frank Act, Dodd-Frank Wall Street Reform and Consumer Protection Act (Pub. L. 111-203, H.R. 4173) (“Dodd-Frank”) or by the Commodity Futures Trading Commission (“CFTC”), the State Finance and Governance Board of the Commonwealth established under Section 97 of Chapter 6 of the Massachusetts General Laws, and other applicable regulations as may be implemented during the period covered by this policy. This includes evaluating all financing proposals, including swap proposals, under the framework set forth under these regulations, following all registration protocols, and appointing a qualified party to serve in the role as Qualified Independent Representative to MassDOT. MassDOT will secure professional advice from an independent swap advisor, which shall be a registered Municipal Advisor, as defined under Section 15B of the Securities Exchange Act, and bond counsel to assist in the process of reviewing possible transactions and in structuring, documenting and pricing any particular transaction that MassDOT decides to execute. MassDOT’s Legal Entity Identifier (“LEI”) is 549300CGDCL8XZK3KN03 as required under the CFTC’s swap data reporting regulations.

MassDOT will also comply with all regulatory and reporting requirements of the Commonwealth including those of the State Finance and Governance Board or its successors related to derivative transactions as defined by regulations adopted by that board and as may be amended during the period covered by this policy.

13. Board Review, Approval and Revision of the Policy

This policy will be updated every two years, or more often as required by federal or Commonwealth of Massachusetts regulatory authorities, including review by the Board Finance and Audit Committee and adoption by the Board.

14. Availability of Policy to Public

A copy of this policy will be posted on the MassDOT's website (www.MassDOT.state.ma.us) and will be made available to any members of the public upon reasonable request.

Approved April 23, 2018 by MassDOT Board of Directors