# Grant/Cooperative Agreement

1. **RECIPIENT NAME AND ADDRESS**
   
   Transportation, Massachusetts Executive Office  
   1 Park Plz Ste 3170  
   Boston, MA 02116-3979

2. **AGREEMENT NUMBER:** FR-HSR-0040-11-01-00

3. **AMENDMENT NO.:** 0

4. **PROJECT PERFORMANCE PERIOD:**  
   **FROM:** 07/08/2011  
   **TO:** 10/31/2013

5. **FEDERAL FUNDING PERIOD:**  
   **FROM:** 07/08/2011  
   **TO:** 10/31/2013

6. **ACTION:** New

7. **CFDA#:** 20.319

8. **PROJECT TITLE:**  
   Knowledge Corridor Restore Vermonter Project

9. **TOTAL OF PREVIOUS AGREEMENT AND ALL AMENDMENTS:** 0

10. **AMOUNT OF THIS AGREEMENT OR AMENDMENT:** 72,800,000

11. **TOTAL AGREEMENT AMOUNT:** 72,800,000

12. **INCORPORATED ATTACHMENTS**

   *This agreement includes the following attachments, incorporated herein and made a part hereof:*
   - Special Provisions, Attachment 1
   - PRIIA of 2008 and Corridor Development Program Clauses, Attachment 1A
   - American Recovery and Reinvestment Act of 2009, Attachment 1B
   - General Provisions, Attachment 2

13. **STATUTORY AUTHORITY FOR GRANT/COOPERATIVE AGREEMENT**


14. **REMARKS**

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## GRANTEE ACCEPTANCE

15. **NAME AND TITLE OF AUTHORIZED GRANTEE OFFICIAL**

   Mr. David Mohler

16. **SIGNATURE OF AUTHORIZED GRANTEE OFFICIAL**

   Electronically Signed

   **DATE:** 06/30/2011

## AGENCY APPROVAL

17. **NAME AND TITLE OF AUTHORIZED FRA OFFICIAL**

   Ms. Gina Christodoulou-AO

18. **SIGNATURE OF AUTHORIZED FRA OFFICIAL**

   Electronically Signed

   **DATE:** 07/01/2011

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## AGENCY USE ONLY

19. **OBJECT CLASS CODE:** 41010

20. **ORGANIZATION CODE:** 9013000000

21. **ACCOUNTING CLASSIFICATION CODES**

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Special Provisions, Attachment 1

1. Identification of Awarding Agency and Grantee:

The Grantee and the Administrator of the FRA, acting by delegation from the Secretary of Transportation, have entered into this Cooperative Agreement ("Agreement") to conduct and fund this project, as more specifically set forth in the Statement of Work, Attachment 3, attached hereto and made a part hereof ("the Project").

2. Scope:

The Grantee shall furnish all personnel, facilities, equipment, and other materials and services (except as otherwise specified herein) necessary to perform the approved Project, as set forth in the Statement of Work (Attachment 3), and in accordance with the representations, certifications and assurances set forth in the Grantee's application(s), and any amendments thereto ("Application"), incorporated herein by reference and made a part hereof.

3. Awarding Agency Participation:

The FRA will provide, on an "as available" basis, one professional staff person, to be designated as the Grant Manager, to review work or work products in progress, and arrange for the review of the Project results upon completion. If this award is made as a cooperative agreement, FRA will have substantial programmatic involvement. Substantial involvement means that, after award, technical, administrative, or programmatic staff will assist, guide, coordinate, or otherwise participate in Project activities.

4. Term:

Unless sooner terminated in accordance with its terms, this Agreement shall be valid for the period described in Section 4 of the Grant/Cooperative Agreement. This time frame includes the period for both completion of the Project, and completion and submission of a final report on Project results, as described in Section 11 and/or other deliverables as agreed to between the parties.

5. Total Project Cost; Cost-Sharing Responsibility:

a. The total estimated cost of the Project is $75,050,000.00.

b. FRA funding assistance is limited to 97.0020% of the estimated cost for completing the Project or $72,800,000.00, whichever is less. Costs for completing the Project in excess of the amounts set forth in this section will be the responsibility of the Grantee.

c. Grantee funding assistance shall not be less than 2.9980% of the total cost of the Project. Consequently, of the amount specified in subparagraph (a) of this section, Grantee funding is not to be less than $2,250,000.00. The Grantee may provide its funding assistance under this subsection from permissible non-Grantee sources.

d. When requesting payment, the Grantee must identify: (1) the total amount of costs; (2) Grantee funding assistance applied to the Project; and (3) the balance of Federal assistance dollars requested for payment.

e. Funding responsibility for the Project under this Agreement is recapped as follows:
f. In accordance with Attachment 2, Sections 7c.(5) and d.(1) herein, FRA hereby authorizes the incurrence of pre-agreement costs by the Grantee on or after February 17, 2009, in anticipation of Agreement award, but such costs are allowable only to the extent that they are otherwise allowable under the terms of this Agreement.

6. Program Income:

a. The Grantee is encouraged to earn income to defray Project costs. Unless prohibited by 49 C.F.R. Part 18.25 or 49 C.F.R. Part 19.24, as applicable, or otherwise agreed to in writing to by FRA and the Grantee, any program income derived from the Project shall be committed under this Agreement to further eligible objectives of the Project.

b. Program income shall be proportionally deducted from Project outlays, which shall include both the Federal and non-Federal shares of Project costs, as applicable.

7. Payment Method:

Payment of FRA funding through FRA’s Office of Financial Services, shall be made on a reimbursable basis whereby the Grantee will be reimbursed, after the submission of proper invoices, for actual expenses incurred.

The Grantee will use the Automated Clearing House (ACH) Electronic Vendor Payment method for transfer of reimbursed funds and submit an SF 270 form.

Unless directed otherwise, requests for payment shall be made via email to 9-AMC-AMZ-FRA-INVOICES@FAA.GOV or by mail to:

MMAC/DOT/FRA
AMZ-150, Accounts Payable
P.O. Box 268943
Oklahoma City, OK 73126

Or via Federal Express to:

MMAC/DOT/FRA
AMZ-150, Accounts Payable
HQ Bldg, Rm 272-F
6500 S MacArthur Blvd
Oklahoma City, OK 73169

8. Reports, Presentations and Other Deliverables:

Whether for technical examination, administrative review, or publication, all submittals shall be of a professional quality and suitable for their intended purpose.
9. **Progress Reports:**

Four quarterly progress reports following the form of Attachment 4 shall be submitted for periods: January 1- March 31, April 1-June 30, July 1-September 30, and October 1-December 31. The Grantee shall furnish one (1) copy to the Grant Manager on or before the thirtieth (30th) calendar day of the month following the end of the quarter being reported. Each report shall set forth concise statements concerning activities relevant to the Project, and shall include, but not be limited to, the following:

a) Relate the state of completion of items in the Statement of Work to expenditures of the relevant budget elements.

b) An account of significant progress (findings, events, trends, etc.) made during the reporting period.

c) A description of any technical and/or cost problem(s) encountered or anticipated that will affect completion of the grant within the time and fiscal constraints as set forth in the Agreement, together with recommended solutions or corrective action plans (with dates) to such problems, or identification of specific action that is required by the FRA, or a statement that no problems were encountered.

d) An outline of work and activities planned for the next reporting period.

10. **Quarterly Federal Financial Report:**

The Grantee shall furnish one (1) copy of a quarterly financial status report to the Grant Manager, and one (1) copy to the Administrative Officer, on or before the thirtieth (30th) calendar day of the month following the end of the quarter being reported. The Grantee shall use SF-425, Federal Financial Report, in accordance with the instructions accompanying the form, to report all transactions, including Federal cash, Federal expenditures and unobligated balance, recipient share, and program income.

11. **Interim and/or Final Report(s):**

If required, interim reports will be due at intervals specified in the Statement of Work. Within 90 days of the Project completion date or termination by FRA, the Grantee shall furnish one (1) hard copy and one (1) reproducible master original to the Grant Manager, and one (1) hard copy to the FRA Administrative Officer of a Summary Project Report. A final version of this report, detailing the results and benefits of the Grantee's improvement efforts, shall be furnished by the expiration date of this Agreement.

12. **Administrative Responsibility:**

Gina Matrassi, Office of Financial Management, is designated as FRA's Administrative Officer for this Project. All FRA administrative duties under this Agreement are to be performed by the Administrative Officer, unless otherwise specified.

13. **Grant Manager:**

a. Cherron Riddick, Office of Railroad Policy and Development, is designated as FRA's Grant Manager. The Grant Manager will oversee the technical administration of this Agreement and act as technical liaison with the Grantee. The Grant Manager is not authorized to change the Statement of
Work or specifications as stated in this Agreement, to make any commitments or otherwise obligate the FRA, or authorize any changes which affect this Agreement's monetary amount, the delivery schedule, period of performance or other terms or conditions.

b. The FRA official authorized to sign this Agreement is the only individual who can legally commit or obligate FRA for the expenditure of public funds. The technical administration of this Agreement shall not be construed to authorize the revision of the terms and conditions of this Agreement.

14. Delivery/Mailing Addresses:

Unless directed otherwise, all deliverables and copies of reports required to be delivered to the Grant Manager under this Agreement shall be delivered F.O.B. destination, under transmittal letter, to:

Federal Railroad Administration  
Office of Railroad Policy and Development  
1200 New Jersey Avenue, SE (Mail Stop 20)  
Washington, DC 20590  
ATTN: Cherron Riddick

Unless directed otherwise, all deliverables and copies of reports required to be delivered to the Administrative Officer under this Agreement shall be delivered F.O.B. destination, under transmittal letter, to:

Federal Railroad Administration  
Office of Financial Management  
1200 New Jersey Avenue, SE (Mail Stop 45)  
Washington, DC 20590  
ATTN: Gina Matrassi

15. Governing Regulations:

The Grantee acknowledges that its performance shall be governed by and in compliance with the following Administrative and Cost Principles:

For State, Local and/or Tribal Governmental Entities:

- 49 C.F.R. Part 18, "Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments"

For non-profit and for-profit:

- 49 C.F.R. Part 19, "Uniform Administrative Requirements for Grants and Cooperative Agreements With Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations" (applies to non-profit and for-profit organizations)
- OMB Circular A-21, "Cost Principles for Educational Institutions" (applies to educational institutions)
- OMB Circular A-122, "Cost Principles for Nonprofit Organizations" (applies to private non-profit organizations)
- Federal Acquisition Regulation, 48 C.F.R. Chapter I, Subpart 31.2, "Contracts with Commercial Organizations" (applies to for-profit organizations).
These identified circulars and regulations are hereby incorporated into this Agreement by reference as if fully set out herein.

PRIIA of 2008 and Corridor Development Program Clauses, Attachment 1A

1. The Grantee shall comply with the following clauses which are an integral part of the Agreement to which these clauses are attached and made a part thereof.

Section 1. Buy America.

The Grantee shall comply with the Buy America provisions set forth in 49 U.S.C. 24405(a), with respect to the use of steel, iron, and manufactured goods produced in the United States, subject to the conditions therein set forth.

Section 2. Labor Provisions.

The Grantee recognizes that 49 U.S.C. 24405(b) provides that persons conducting rail operations over rail infrastructure constructed or improved in whole or in part with funds provided through this Agreement shall be considered a "rail carrier," as defined by 49 U.S.C. 10102(5), for the purposes of Title 49, United States Code, and any other statute that adopts that definition or in which that definition applies, including the Railroad Retirement Act of 1974 (45 U.S.C. 231 et seq.), the Railway Labor Act (43 U.S.C. 151 et seq.), and the Railroad Unemployment Insurance Act (45 U.S.C. 351 et seq.). The Grantee shall reflect these requirements in its agreements (if any) with the entities operating rail services over such rail infrastructure.

Section 3. Labor Protective Arrangements.

For a project that uses rights-of-way owned by a railroad, the Grantee shall comply with the protective arrangements established under Section 504 of the Railroad Revitalization and Regulatory Reform Act of 1976 (4R Act), 45 U.S.C. 836, with respect to employees affected by actions taken in connection with the project financed in whole or in part under this Agreement (See 49 U.S.C. 24405(c).) The Grantee agrees to comply with the protective arrangements established by the Department of Labor under 45 U.S.C. 836, and to ensure that the railroad contractors it uses for the project agree to those terms. The following definitions apply for purposes of applying those protective arrangements:

'Project' means a project funded under this Agreement.

'Protected employee' means an employee of a railroad who had an employment relationship with such railroad on the date on which the Grantee first applied for financial assistance applicable to the project involved and who is affected by actions taken pursuant to this Agreement; provided, however, that an employee who was benefited solely as a result of a project shall not be a protected employee under these provisions.

'Railroad' means a rail carrier or a common carrier by railroad or express as defined in 49 U.S.C. 10102, and includes the National Railroad Passenger Corporation and the Alaska Railroad as well as a person that conducts rail operations over rail infrastructure constructed or improved with funding provided in whole or in part in a grant made pursuant to this Agreement.

Section 4. Railroad Agreements.

The Grantee represents that it has entered into and will abide by a written agreement (approved by
FRA) with any railroad owning property on which a project is to be undertaken, in accordance with 49 U.S.C. 24405(c) (1), providing for compensation for use, assurances regarding the adequacy of infrastructure capacity, keeping railroad collective bargaining agreements in full force and effect, and compliance with liability requirements. Such approved railroad agreements shall also specify terms and conditions regarding the following issues: responsibility for Project design and implementation; Project property ownership, maintenance responsibilities, and disposition responsibilities; and the railroad’s commitment to helping to achieve, to the extent it is capable, the anticipated Project benefits. The Grantee shall not enter into or agree to any substantive changes in the approved written agreement with the railroad owning property on which the Project is undertaken without FRA’s prior written consent.

Section 5. Maintenance Responsibility and Refunds.

Except as otherwise provided herein, the Grantee shall ensure the maintenance of Project property to the level of utility (including applicable FRA track safety standards) which existed when the Project improvements were placed in service (as set forth in the Statement of Work (Attachment 3)) for a period of twenty (20) years from the date such Project property was placed in service. In the event the Grantee fails to maintain Project property as required by this section for a period of time in excess of six (6) months, the Grantee will refund to FRA a pro-rata share of the Federal contribution, based upon the percentage of the twenty (20) year period remaining at the time of such original default. In addition, in the event that all intercity passenger rail service making use of the Project property is discontinued during the twenty (20) year period, the Grantee shall continue to ensure the maintenance of the Project property, as set forth above, for a period of one (1) year from the date of the discontinuance to allow for the possible reintroduction of intercity passenger rail service.

Section 6. Project Use for Intercity Passenger Rail Service and Refunds.

The Grantee acknowledges that the purpose of the Project is to benefit intercity passenger rail service. In the event that all intercity passenger rail service making use of the Project property is discontinued (for any reason) at any time during a period of twenty (20) years from the date such Project property was placed in service, as set forth above, and if such intercity passenger rail service is not reintroduced during a one (1) year period following the date of such discontinuance, the Grantee shall refund to FRA, no later than eighteen (18) months following the date of such discontinuance, a pro-rata share of the Federal contribution, based upon the percentage of the twenty (20) year period remaining at the time of such discontinuance.


For projects using or proposing to use rights-of-way owned by a railroad, the Grantee shall comply with the provisions of 49 U.S.C. 24405(c) (2), with respect to the payment of prevailing wages consistent with the provisions of 49 U.S.C. 24312. For these purposes, wages in collective bargaining agreements negotiated under the Railway Labor Act are deemed to comply with Davis-Bacon Act requirements. For projects not using or proposing to use rights-of-way owned by a railroad, the Grantee will comply with the provisions of 40 U.S.C. 3141 et seq.

Section 8. Replacement of Existing Intercity Passenger Rail Service.

The Grantee shall comply with the provisions of 49 U.S.C. 24405(d), with respect to the provision of any intercity rail passenger service that was provided by Amtrak, including collective bargaining agreements, replacement services, and arbitration.

The Grantee shall prepare and carry out a project management plan approved by the FRA. At a minimum, the Project Management Plan must include the items addressed in 49 U.S.C. 24403(a).

American Recovery and Reinvestment Act of 2009 Clauses, Attachment 1B

1. The Grantee will comply with the following clauses, which are an integral part of the Agreement to which these clauses are attached and made a part thereof.

   Section 1. Grantee Certifications.

   The American Recovery and Reinvestment Act of 2009 (Recovery Act) requires three certifications, which the Grantee shall address as follows:

   a. Maintenance of Effort Certification (Recovery Act Section 1201). A Maintenance of Effort Certification was required from each State within thirty days of enactment of the Recovery Act (February 17, 2009) pursuant to section 1201 of the Recovery Act. With respect to the Recovery Act funds provided through this Agreement, the Grantee may rely on an existing certification submitted by the State to the Secretary of Transportation, so long as the Grantee certifies to the Administrator (c/o the Grant Manager identified in Attachment 2, section 14) as to the existence and continued validity of the existing certification. If a new certification is required, it should be submitted to the Secretary of Transportation, c/o Joel Szabat, Deputy Assistant Secretary of Transportation for Policy, at TigerTeam.Leads@dot.gov. Certifications may be submitted via e-mail as electronic, scanned copies, with original signed versions to be submitted via U.S. mail.

   b. Responsible Investments Certification (Recovery Act Section 1511). With respect to and prior to the receipt of the funds made available through this Agreement, the Governor or the head of the State Department of Transportation shall certify to the Secretary of Transportation that the infrastructure investments to be funded herein have received the full review and vetting required by law and that the Governor or head of the State Department of Transportation accepts responsibility that the infrastructure investments are an appropriate use of taxpayer dollars. The certification shall include a description of the investments, the estimated total cost, and the amount of Recovery Act funds to be used, and shall be submitted to the Secretary of Transportation, c/o Joel Szabat, Deputy Assistant Secretary of Transportation for Policy, at TigerTeam.Leads@dot.gov. Certifications may be submitted via e-mail as electronic, scanned copies, with original signed versions to be submitted via U.S. mail. As required by the Recovery Act, Certifications under Section 1511 shall be immediately posted on an appropriate State website and linked to the website established by the Recovery Accountability and Transparency Board. No funds will be reimbursed until such posting is made.

   c. Appropriate Use of Funds Certification (Recovery Act Section 1607). An Appropriate Use of Funds Certification was required from each State within 45 days of enactment of the Recovery Act (February 17, 2009) pursuant to section 1607 of the Recovery Act. With respect to the Recovery Act funds provided through this Agreement, the Grantee may rely on an existing certification submitted by the State to the Secretary of Transportation, so long as the Grantee certifies to the Administrator (c/o the Grant Manager identified in Attachment 2, Section 14) of the existence and continued validity of the existing certification. If a new certification is required, it should be submitted to the Secretary of Transportation, c/o Joel Szabat, Deputy Assistant Secretary of Transportation for Policy, at TigerTeam.Leads@dot.gov. Certifications may be submitted via e-mail as electronic, scanned copies, with original signed versions to be submitted via U.S. mail.

   d. Department of Transportation Guidance. The Department has issued guidance on
compliance with the certification requirements of the Recovery Act, which is found at http://www.dot.gov/recovery/certguidance.htm. The Grantee should refer to this guidance in evaluating the continued validity of any existing certifications and in preparing any new certifications required under this section 1.

Section 2. Whistleblower Protections.

An employee of the Grantee may not be discharged, demoted, or otherwise discriminated against as a reprisal for disclosing, including a disclosure made in the ordinary course of an employee’s duties, to the Recovery Accountability and Transparency Board, an inspector general, the Comptroller General, a member of Congress, a State or Federal regulatory or law enforcement agency, a person with supervisory authority over the employee (or such other person working for the employer who has the authority to investigate, discover, or terminate misconduct), a court or grand jury, the head of a Federal agency, or their representatives, information that the employee reasonably believes is evidence of – (1) gross mismanagement of an agency contract or grant relating to Recovery Act funds; (2) a gross waste of Recovery Act funds; (3) a substantial and specific danger to public health or safety related to the implementation or use of Recovery Act funds; (4) an abuse of authority related to the implementation or use of Recovery Act funds; or (5) a violation of law, rule, or regulation related to an agency contract (including the competition for or negotiation of a contract) or grant, awarded or issued relating to Recovery Act funds.

Section 3. False Claims Act.

The Grantee and any sub-grantee awarded funds made available under the Recovery Act and through this Agreement shall promptly refer to the Department of Transportation Inspector General any credible evidence that a principal, employee, agency, contractor, sub-grantee, subcontractor, or other person has submitted a false claim under the False Claims Act or has committed a criminal or civil violation of laws pertaining to fraud, conflict of interest, bribery, gratuity, or similar misconduct involving Recovery Act funds.

Section 4. Prohibited Activities.

None of the funds provided through this Agreement may be used for any casino or other gaming establishment, aquarium, zoo, golf course or swimming pool.

Section 5. Recovery Act Funding Announcement.

The Grantee is strongly encouraged to post a sign at all fixed project locations at the most publicly accessible location and a plaque in all purchased or rehabilitated rail cars announcing that the project or equipment was funded by the U.S. Department of Transportation, Federal Railroad Administration, with funds provided through the American Recovery and Reinvestment Act. The configuration of the signs or plaques will be consistent with guidance issued by the Office of Management and Budget and/or the Department of Transportation and approved by the FRA.

Section 6. Reporting Requirements.

a. Periodic Reports. The Grantee shall submit periodic reports to the FRA Administrator, as required by section 1201(c) of the Recovery Act, and as described in this section, not later than February 17, 2011, and February 17, 2012. The periodic reports shall include information describing: (1) the amount of Federal funds appropriated, allocated, obligated, and outlayed under this Agreement; (2) the number of projects that have been put out to bid under this Agreement and the amount of Federal funds associated with such projects; (3) the number of projects for which contracts have been awarded under this Agreement and the amount of Federal funds associated with such
contracts; (4) the number of projects for which work has begun under such contracts and the amount of Federal funds associated with such contracts; (5) the number of projects for which work has been completed under such contracts and the amount of Federal funds associated with such contracts; (6) the number of direct, on-project jobs created or sustained by the Federal funds provided for projects under this Agreement and, to the extent possible, the estimated indirect jobs created or sustained in the associated supplying industries, including the number of jobs created and the total increase in employment since February 17, 2009; and (7) information tracking the actual aggregate expenditures by the Grantee from Grantee sources (both internal and external) for projects eligible for funding under this Agreement during the period beginning on February 17, 2009 through September 30, 2010, as compared to the level of such expenditures that were planned to occur during such period as of February 17, 2009. The Department of Transportation or the FRA may issue additional guidance on the preparation and submission of periodic reports.

b. Jobs Accountability Reports.

i. As required by Section 1512(c) of the Recovery Act, and consistent with Office of Management and Budget (OMB) Guidance, dated June 22, 2009 and found at (http://www.whitehouse.gov/omb/assets/memoranda_fy2009/m09-21.pdf), the Grantee shall submit a jobs accountability report to http://www.FederalReporting.gov not later than ten days after the end of each quarter. The report shall contain: (1) the total amount of Recovery Act funds received pursuant to this Agreement; (2) the amount of Recovery Act funds received that were expended or obligated to projects or activities; and (3) a detailed list of all projects or activities for which Recovery Act funds were expended or obligated, including—(A) the name of the project or activity; (B) a description of the project or activity; (C) an evaluation of the completion status of the project or activity; (D) an estimate of the number of jobs created and the number of jobs retained by the project or activity; and (E) detailed information on any subcontracts or subgrants awarded by the Grantee to include the data elements required to comply with the Federal Funding Accountability and Transparency Act of 2006 (Public Law 109-282), allowing aggregate reporting on awards below $25,000 or to individuals, as prescribed by the Director of the Office of Management and Budget.

ii. Information from these reports will be made available to the public. The reporting responsibility should be passed down from the Grantee to the sub-grantee/sub-recipient or vendor, in order to ensure that the necessary information is provided to the Grantee, which is ultimately responsible for reporting the required elements. The Office of Management and Budget may issue additional guidance on the preparation and submission of jobs accountability reports. The Grantee must also register with the Central Contractor Registration database (http://www.ccr.gov) or complete other registration requirements as determined by the Director of the Office of Management and Budget. A DUNS Number (http://www.dnb.com) is one of the requirements for registration in the Central Contractor Registration.

Section 7. Contract Awards

As required by Section 1554 of the Recovery Act, the Grantee shall to the maximum extent possible award contracts funded under this Agreement as fixed-priced contracts through the use of competitive procedures. In rare circumstances where the Grantee awards a contract that is not fixed-price and not awarded using competitive procedures, the Grantee shall publicly and electronically post a summary of such contract on its website and electronically link such posting to the website created and maintained by the Recovery Accountability and Transparency Board pursuant to section 1526 of the Recovery Act.

General Provisions, Attachment 2
1. Definitions. As used in this Agreement:

a. **Agreement** means this Grant Agreement or Cooperative Agreement, including all attachments.

b. **Application** means the signed and dated proposal by or on behalf of the Grantee, as may be amended, for Federal financial assistance for the Project, together with all explanatory, supporting, and supplementary documents heretofore filed with and accepted or approved by FRA.

c. **Approved Project Budget** means the most recently dated written statement, approved in writing by FRA, of the estimated total cost of the Project, the items to be deducted from such total in order to calculate the estimated net Project cost, the maximum amount of Federal assistance for which the Grantee is currently eligible, the specific items (including contingencies specified) for which the total may be spent, and the estimated cost of each of such items. The term "Approved Project Budget" also includes "Financial Plan" as used in 49 C.F.R. Part 19.

d. **Awarding Agency** means (1) with respect to a grant, the Federal agency, and (2) with respect to a subgrant, the party that awarded the subgrant. In the case of a Federal Agency, the term "Awarding Agency" also includes "Federal Awarding Agency" as used in 49 C.F.R. Part 19.

e. **Federal Railroad Administration** is an operating administration of the U.S. Department of Transportation.

f. **Federal Government** means the United States of America and any executive department or agency thereof.

g. **Grantee** means any entity that receives Federal grant assistance directly from FRA for the accomplishment of the Project.

h. **Project** means the task or set of tasks set forth in the approved Application which the Grantee carries out pursuant to this Agreement, as set forth in the Statement of Work (Attachment 3).

i. **Subgrantee** means any entity that receives FRA assistance from an FRA Grantee, rather than from FRA directly. The term "subgrantee" does not include "third party contractor."

j. **U.S. DOT** means the U.S. Department of Transportation, including its operating administrations.

2. Accomplishment of the Project:

a. **General Requirements:**

The Grantee agrees to carry out the Project in a sound, economical, and efficient manner, and in accordance with the provisions of this Agreement, grant guidance, the Application, the Approved Project Budget, the Statement of Work, Project schedules, and all applicable laws, regulations, and published policies. This includes, but is not limited to the following, as applicable:

1) U.S. DOT regulations, "Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments" (common grant management rule), 49 C.F.R. Part 18, applies to Projects with governmental bodies.

2) U.S. DOT regulations, "Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Nonprofit Organizations," 49 C.F.R. Part 19,
applies to Projects with institutions of higher education and private nonprofit organizations. 49 C.F.R. Part 19 also applies to grants and cooperative agreements with private for-profit organizations.


1) Federal Laws and Regulations. The Grantee understands that Federal laws, regulations, policies, and related administrative practices to this Agreement on the date the Agreement was executed may be modified from time to time. The Grantee agrees that the most recent of such Federal requirements will govern the administration of this Agreement at any particular time, except if there is sufficient evidence in this Agreement of a contrary intent. Likewise, new Federal laws, regulations, policies and administrative practices may be established after the date the Agreement has been executed and may apply to this Agreement. To achieve compliance with changing Federal requirements, the Grantee agrees to include in all sub-assistance agreements and third party contracts financed with FRA assistance, specific notice that Federal requirements may change and the changed requirements will apply to the Project as required. All limits or standards set forth in this Agreement to be observed in the performance of the Project are minimum requirements.

2) State or Territorial Law and Local Law. Except to the extent that a Federal statute or regulation preempts State or territorial law, nothing in this Agreement shall require the Grantee to observe or enforce compliance with any provision thereof, perform any other act, or do any other thing in contravention of any applicable State or territorial law; however, if any of the provisions of this Agreement violate any applicable State or territorial law, or if compliance with the provisions of this Agreement would require the Grantee to violate any applicable State or territorial law, the Grantee agrees to notify the FRA immediately in writing in order that FRA and the Grantee may make appropriate arrangements to proceed with the Project as soon as possible.

c. Funds of the Grantee. Unless approved otherwise by FRA, the Grantee agrees to complete all actions necessary to provide the matching contributory funds or cost share of the Project costs, if applicable, at or before the time that such funds are needed to meet Project expenses.

d. Changed Conditions of Performance (Including Litigation). The Grantee agrees to notify FRA immediately of any change in local law, conditions, or any other event that may affect its ability to perform the Project in accordance with the terms of this Agreement. In addition, the Grantee agrees to notify FRA immediately of any decision pertaining to the Grantee's conduct of litigation that may affect FRA's interests in the Project or FRA's administration or enforcement of applicable Federal laws or regulations. Before the Grantee may name FRA as a party to litigation for any reason, the Grantee agrees first to inform FRA; this proviso applies to any type of litigation whatsoever, in any forum.

e. No FRA Obligations to Third Parties. Absent FRA's express written consent, and notwithstanding any concurrence by FRA in or approval of the award of any contract of the Grantee (third party contract) or subcontract of the Grantee (third party subcontract) or the solicitation thereof, FRA shall not be subject to any obligations or liabilities to third party contractors or third party subcontractors or any other person not a party to this Agreement in connection with the performance of the Project.

3. Ethics:

a. Standards of Conduct. The Grantee agrees to maintain a written code or standards of conduct that shall govern the performance of its officers, employees, board members, or agents engaged in the award and administration of contracts supported by Federal funds. The code or standards shall provide that the Grantee's officers, employees, board members, or agents may neither solicit nor accept gratuities, favors or anything of monetary value from present or potential contractors or
subgrantees. The Grantee may set minimum rules where the financial interest is not substantial or the gift is an unsolicited item of nominal intrinsic value. As permitted by State or local law or regulations, such code or standards shall provide for penalties, sanctions, or other disciplinary actions for violations by the Grantee's officers, employees, board members, or agents, or by contractors or subgrantees or their agents.

1) Personal Conflict of Interest. The Grantee's code or standards must provide that no employee, officer, board member, or agent of the Grantee may participate in the selection, award, or administration of a contract supported by Federal funds if a real or apparent conflict of interest would be involved. Such a conflict would arise when any of the parties set forth below has a financial or other interest in the firm selected for award:

a) The employee, officer, board member, or agent;
b) Any member of his or her immediate family;
c) His or her partner; or
d) An organization that employs, or is about to employ, any of the above.

2) Organizational Conflicts of Interest. The Grantee's code or standards of conduct must include procedures for identifying and preventing real and apparent organizational conflicts of interests. An organizational conflict of interest exists when the nature of the work to be performed under a proposed third party contract, may, without some restrictions on future activities, result in an unfair competitive advantage to the contractor or impair the contractor's objectivity in performing the contract work.

b. Existing Provisions. This section does not require the Grantee to implement a new code or standards of conduct where a State statute, or written code or standards of conduct, already effectively covers all of the elements of a.

4. Approved Project Budget:

The Grantee agrees to carry out the Project in accordance with the Approved Project Budget, written approval of which the Grantee shall secure prior to being reimbursed under this Agreement. If the Approved Project Budget is included in this Agreement as Attachment 3, execution of the Agreement shall constitute such written approval. The Grantee agrees to obtain the prior written approval of FRA's Associate Administrator for Railroad Development or the Associate Administrator for Railroad Safety, as applicable, for any revisions to the Approved Project Budget that equal or exceed 10 percent any line item or pertain to a line item involving contingency or miscellaneous costs. For revisions to the Approved Project Budget that are less than 10 percent of any line item, and do not involve contingency or miscellaneous costs, the Grantee agrees to notify FRA of the revisions to the Approved Project Budget. Any revisions to the Approved Project Budget must not affect total project costs or the respective cost-sharing responsibilities set forth in Attachment 1, Section 5.

5. Accounting Records:

a. Project Accounts. The Grantee agrees to establish and maintain for the Project either a separate set of accounts or accounts within the framework of an established accounting system, in a manner consistent with 49 C.F.R. § 18.20, or 49 C.F.R. § 19.21, as amended, whichever is applicable.

b. Funds Received or Made Available for the Project. Consistent with the provisions of 49 C.F.R. § 18.21, or 49 C.F.R. § 19.21, as amended, whichever is applicable, the Grantee agrees to record in the Project Account, and deposit in a financial institution all Project payments received by it from FRA pursuant to this Agreement and all other funds provided for, accruing to, or otherwise received on account of the Project (Project Funds). The Grantee is encouraged to use financial institutions
owned at least 50 percent by minority group members.

c. **Documentation of Project Costs and Program Income.** All costs charged to the Project, including any approved services contributed by the Grantee or others, shall be supported by properly executed payrolls, time records, invoices, contracts, or vouchers describing in detail the nature and propriety of the charges. The Grantee also agrees to maintain accurate records of all Program Income derived from Project implementation.

d. **Checks, Orders, and Vouchers.** The Grantee agrees that all checks, payrolls, invoices, contracts, vouchers, orders, or other accounting documents pertaining in whole or in part to the Project shall be clearly identified, readily accessible, and, to the extent feasible, kept separate from documents not pertaining to the Project.

6. **Record Retention:**

   a. **Submission of Proceedings, Contracts and Other Documents.** During the course of the Project and for three years thereafter, the Grantee agrees to retain intact and to provide any data, documents, reports, records, contracts, and supporting materials relating to the Project as FRA may require. Reporting and record-keeping requirements are set forth in-

      1) 49 C.F.R. Part 18 for governmental Grantees; and
      2) 49 C.F.R. Part 19 for private non-profit and for-profit Grantees.

   Project closeout does not alter these requirements.

   b. **Audit and Inspection.**

      1) General Audit Requirements. A Grantee that is:

         a) a State, local government or Indian tribal government agrees to comply with the audit requirements of 49 C.F.R. § 18.26 and OMB Circular A-133, and any revision or supplement thereto.

         b) an institution of higher education or nonprofit organization agrees to comply with the audit requirements of 49 C.F.R. § 19.26 and OMB Circular A-133, and any revision or supplement thereto.

         c) a private for-profit organization agrees to comply with the audit requirements of OMB Circular A-133.

         The Grantee agrees to obtain any other audits required by FRA. Project closeout will not alter the Grantee's audit responsibilities. Audit costs for Project administration and management are allowable under this Project to the extent authorized by OMB Circular A-87, Revised; OMB Circular A-21, Revised; or OMB Circular A-122, Revised.

      2) Inspection by Federal Officials. The Grantee agrees to permit the Secretary and the Comptroller General of the United States, or their authorized representatives, to inspect all Project work, materials, payrolls, and other data, and to audit the books, records, and accounts of the Grantee and its contractors pertaining to the Project. The Grantee agrees to require each third party contractor whose contract award is not based on competitive bidding procedures as defined by the Secretary to permit the Secretary of Transportation...
and the Comptroller General of the United States, or their duly authorized representatives, to inspect all work, materials, payrolls, and other data and records involving that contract, and to audit the books, records, and accounts involving that contract as it affects the Project.

7. Payments:

a. Request by the Grantee for Payment. The Grantee's request for payment of the Federal share of allowable costs shall be made to FRA at the address shown in Section 7 of Attachment 1, Special Provisions, and will be acted upon by FRA as set forth in this section. Each payment made to the Grantee must comply with Department of the Treasury regulations, "Rules and Procedures for Funds Transfers," 31C.F.R. Part 205. To receive a Federal assistance payment, the Grantee must:

1) Have demonstrated or certified that it has made a binding commitment of non-Federal funds, if applicable, adequate when combined with Federal payments, to cover all costs to be incurred under the Project to date. A Grantee required by Federal statute or this Agreement to provide contributory matching funds or a cost share agrees:

a) to refrain from requesting or obtaining Federal funds in excess of the amount justified by the contributory matching funds or cost share that has been provided; and

b) to refrain from taking any action that would cause the proportion of Federal funds made available to the Project at any time to exceed the percentage authorized under this Agreement. The requirement for contributory matching funds or cost share may be temporarily waived only to the extent expressly provided in writing by FRA.

2) Have submitted to FRA all financial and progress reports required to date under this Agreement; and

3) Have identified the source(s) of financial assistance provided under this Project, if applicable, from which the payment is to be derived.

b. Payment by FRA.

1) Reimbursement Payment by FRA. FRA uses the reimbursement method, whereby the Grantee agrees to:

a. Complete and submit Standard Form 3881, "Payment Information Form - ACH Payment Vendor Payment System," to FRA; and

b. Complete and submit Standard Form 270, "Request for Advance or Reimbursement," to FRA.

2) Upon receipt of a payment request and adequate accompanying information (invoices in accordance with applicable cost principles), FRA will authorize payment by direct deposit, or if requested by the Grantee, by issuance of a treasury check (allow 30 day processing time for issuance of check), provided the Grantee: (i) is complying with its obligations under this Agreement, (ii) has satisfied FRA that it needs the requested Federal funds during the requisition period, and (iii) is making adequate and timely progress toward Project completion. If all these circumstances are present, FRA may reimburse allowable costs incurred by the Grantee up to the maximum amount of FRA's share of the total Project funding.

3) Other Payment Information.
a. The Grantee agrees to adhere to and impose on its subgrantees all applicable foregoing "Payment by FRA" requirements of this Agreement.

b. If the Grantee fails to adhere to the foregoing "Payment by FRA" requirements of this Agreement, FRA may revoke the portion of the Grantee's funds that has not been expended.

c. **Allowable Costs.** The Grantee's expenditures will be reimbursed only if they meet all requirements set forth below:

1) Conform with the Project description, the Statement of Work, and the Approved Project Budget and all other terms of this Agreement;

2) Be necessary in order to accomplish the Project;

3) Be reasonable for the goods or services purchased;

4) Be actual net costs to the Grantee (i.e., the price paid minus any refunds, rebates, or other items of value received by the Grantee that have the effect of reducing the cost actually incurred);

5) Be incurred (and be for work performed) after the effective date of this Agreement, unless specific authorization from FRA to the contrary is received in writing;

6) Unless permitted otherwise by Federal status or regulation, conform with Federal guidelines or regulations and Federal cost principles as set forth below:

   a. For Grantees that are governmental organizations, the standards of OMB Circular A-87, Revised, "Cost Principles for State and Local Governments" apply;

   b. For Grantees that are institutions of higher education, the standards of OMB Circular A-21, Revised, "Cost Principles for Educational Institutions" apply;

   c. For Grantees that are private nonprofit organizations, the standards of OMB Circular A-122, Revised, "Cost Principles for Nonprofit Organizations" apply; and

   d. For Grantees that are for-profit organizations, the standards of the Federal Acquisition Regulation, 48 C.F.R. Chapter I, Subpart 31.2, "Contracts with Commercial Organizations" apply.

7) Be satisfactorily documented; and

8) Be treated uniformly and consistently under accounting principles and procedures approved and prescribed by FRA for the Grantee, and those approved or prescribed by the Grantee for its subgrantees and contractors.

d. **Disallowed Costs.** In determining the amount of Federal assistance FRA will provide, FRA will exclude:

1) Any Project costs incurred by the Grantee before the obligation date of this Agreement, or amendment or modification thereof, whichever is later, unless specifically allowed by this Agreement, otherwise permitted by Federal law or regulation, or unless an authorized representative of FRA states in writing to the contrary;

2) Any costs incurred by the Grantee that are not included in the latest Approved Project Budget;
and

3) Any costs attributable to goods or services received under a contract or other arrangement that is required to be, but has not been, concurred in or approved in writing by FRA.

The Grantee agrees that reimbursement of any cost under the "Payment by FRA," part of this Agreement does not constitute a final FRA decision about the allowability of that cost and does not constitute a waiver of any violation by the Grantee of the terms of this Agreement. The Grantee understands that FRA will not make a final determination about the allowability of any cost until an audit of the Project has been completed. If FRA determines that the Grantee is not entitled to receive any part of the Federal funds requested, FRA will notify the Grantee stating the reasons therefore. Project closeout will not alter the Grantee's obligation to return any funds due to FRA as a result of later refunds, corrections, or other transactions. Nor will Project closeout alter FRA's right to disallow costs and recover funds on the basis of a later audit or other review. Unless prohibited by law, FRA may offset any Federal assistance funds to be made available under this Project as needed to satisfy any outstanding monetary claims that the Federal Government may have against the Grantee. Exceptions pertaining to disallowed costs will be assessed based on their applicability, as set forth in the applicable Federal cost principals or other written Federal guidance.

e. Bond Interest and Other Financing Costs. To the extent permitted in writing by FRA, bond interest and other financing costs are allowable.

f. Requirement to Remit Interest. The Grantee agrees that:

1) Any interest earned by the Grantee on FRA funds must be remitted to FRA, except as provided by 31 U.S.C. § 6503, or the Indian Self-Determination Act, 25 U.S.C. § 450 et seq., and any regulations thereunder that may be issued by the U.S. Secretary of the Treasury.

2) Irrespective of whether the Grantee has deposited funds in an interest-bearing account, the Grantee agrees to pay to FRA interest on any FRA funds that the Grantee has drawn down and failed to spend for eligible Project activities. Unless waived by FRA, interest will be calculated at rates imposed by the U.S. Secretary of the Treasury beginning on the fourth day after the funds were deposited in the Grantee's bank or other financial depository. This requirement does not apply to any Grantee that is a state, state instrumentality, or Indian Tribal Government, except as permitted under applicable state law and by regulations that may be issued by the U.S. Secretary of the Treasury.

3) Upon notice by FRA to the Grantee of specific amounts due, the Grantee agrees to promptly remit to FRA any excess payment of amounts or disallowed costs, including any interest due thereon.

g. De-obligation of Funds. FRA reserves the right to de-obligate unspent FRA funds prior to Project closeout.

8. Property, Equipment and Supplies:

Unless otherwise approved by FRA, the following conditions apply to property, equipment, and supplies financed under this Agreement:

a. Use of Property. The Grantee agrees that Project property, equipment, and supplies shall be used for the provision of the Project activity for the duration of its useful life, as determined by FRA. Should the Grantee unreasonably delay or fail to use Project property, equipment, or supplies during its useful life, the Grantee agrees that FRA may require the Grantee to return the entire amount of FRA assistance expended on that property, equipment, or supplies. The Grantee further agrees to notify FRA immediately when any Project property or equipment is withdrawn from use in the
Project activity or when such property or equipment is used in a manner substantially different from the representations made by the Grantee in its Application or the text of the Project description.

b. **General Federal Requirements.**

1) A Grantee that is a governmental entity agrees to comply with the property management standards of 49 C.F.R. §§ 18.31, 18.32, and 18.33, including any amendments thereto, and other applicable guidelines or regulations that are issued.

2) A Grantee that is not a governmental entity agrees to comply with the property standards of 49 C.F.R. §§ 19.30 through 19.37 inclusive, including any amendments thereto, and other applicable guidelines or regulations that are issued. Exceptions to the requirements of 49 C.F.R. §§ 18.31, 18.32, and 18.33, and 49 C.F.R. §§ 19.30 through 19.37 inclusive, must be specifically approved by FRA.

c. **Maintenance.** The Grantee agrees to maintain the Project property and equipment in good operating order, and in accordance with any guidelines, directives, or regulations that FRA may issue.

d. **Records.** The Grantee agrees to keep satisfactory records with regard to the use of the property, equipment, and supplies, and submit to FRA, upon request, such information as may be required to assure compliance with this section of this Agreement.

e. **Transfer of Project Property.** The Grantee agrees that FRA may:

1) require the Grantee to transfer title to any property, equipment, or supplies financed with FRA assistance made available by this Agreement, as permitted by 49 C.F.R. § 18.32(g) or 49 C.F.R. §§ 19.30 through 19.37 inclusive, whichever may be applicable.

2) direct the disposition of property or equipment financed with FRA assistance made available under this Agreement, as set forth by 49 C.F.R. §§ 18.31 and 18.32 or 49 C.F.R. §§ 19.30 through 19.37 inclusive, whichever may be applicable.

f. **Withdrawn Property.** If any Project property, equipment, or supplies are not used for the Project for the duration of its useful life, as determined by FRA, whether by planned withdrawal, misuse or casualty loss, the Grantee agrees to notify FRA immediately. Disposition of withdrawn property, equipment, or supplies shall be in accordance with 49 C.F.R. §§ 18.31 and 18.32 for a Grantee that is a governmental entity, or 49 C.F.R. §§ 19.30 through 19.37 inclusive, for a Grantee that is an institution of higher education or a private organization.

g. **Encumbrance of Project Property.** Unless expressly authorized in writing by FRA, the Grantee agrees to refrain from:

1) Executing any transfer of title, lease, lien, pledge, mortgage, encumbrance, contract, grant anticipation note, alienation, or other obligation that in any way would affect FRA interest in any Project property or equipment; or

2) Obligating itself in any manner to any third party with respect to Project property or equipment.

The Grantee agrees to refrain from taking any action or acting in a manner that would adversely affect FRA’s interest or impair the Grantee’s continuing control over the use of Project property or equipment.
9. **Relocation and Land Acquisition:**


10. **Flood Hazards:**

The Grantee agrees to comply with the flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973, 42 U.S.C. § 4012a(a), with respect to any construction or acquisition Project.

11. **Procurement:**

a. **Federal Standards.** The Grantee agrees to comply with the Procurement Standards requirements set forth at 49 C.F.R. § 18.36 or 49 C.F.R. §§ 19.40 through 19.48 inclusive, whichever may be applicable, and with applicable supplementary U.S. DOT or FRA directives or regulations. If determined necessary for proper Project administration, FRA reserves the right to review the Grantee's technical specifications and requirements.

b. **Buy American.** The Grantee agrees that no funds may be expended in contravention of provisions of the Buy American Act (41 U.S.C. §§10a-c), as required by Section 412 of the Transportation, Housing and Urban Development, and Related Agencies Appropriations Act, 2010 (Division A of Public Law 111-117 (December 16, 2009)). As required by Section 413 of the appropriations act, the Grantee represents that it has never been convicted of violating the Buy American Act, and agrees that it will not make funding received under the appropriations act available to any person or entity that has been convicted of violating the Buy American Act.

c. **Cargo Preference -- Use of United States-Flag Vessels.** Pursuant to U.S. DOT, Maritime Administration regulations, "Cargo Preference -- U.S.-Flag Vessels," 46 C.F.R. Part 381, the Grantee shall insert the following clauses in contracts let by the Grantee in which equipment, materials or commodities may be transported by ocean vessel in carrying out the Project:

As required by 46 C.F.R. Part 381, The contractor agrees -

1) To utilize privately owned United States-flag commercial vessels to ship at least 50% of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, materials, or commodities pursuant to this contract to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

2) To furnish within 20 days following the date of loading for shipments originating within the United States, or within 30 working days following the date of loading for shipment originating outside the United States, a legible copy of a rated, "on-board" commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (1) above to the recipient (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of Cargo Preference and Domestic Trade, Maritime Administration, 1200 New Jersey Avenue, SE, Washington, D.C. 20590, marked with appropriate identification of the Project.

3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.
d. **Notification Requirement.** With respect to any procurement for goods and services (including construction services) having an aggregate value of $500,000 or more, the Grantee agrees to:

1) specify in any announcement of the awarding of the contract for such goods or services the amount of Federal funds that will be used to finance the acquisition; and

2) express the said amount as a percentage of the total costs of the planned acquisition.

e. **Debarment and Suspension; and Drug-Free Work Place.** The Grantee agrees to obtain certifications on debarment and suspension from its third party contractors and subgrantees and otherwise comply with U.S. DOT regulations, "Nonprocurement Suspension and Debarment," 2 C.F.R. Part 1200, and "Government wide Requirements for Drug-Free Workplace (Grants)," 49 C.F.R. Part 32.

f. **Notification of Third Party Contract Disputes or Breaches.** The Grantee agrees to notify FRA of any current or prospective major dispute, breach, or litigation pertaining to any third party contract. If the Grantee seeks to name FRA as a party to litigation for any reason, the Grantee agrees first to inform FRA before doing so. This proviso applies to any type of litigation whatsoever, in any forum.

g. **Participation by Small Business Concerns Owned and Controlled by Socially and Economically Disadvantaged Individuals.**

1) The Grantee agrees to: (a) provide maximum practicable opportunities for small businesses, including veteran-owned small businesses and service disabled veteran-owned small businesses, and (b) implement best practices, consistent with our nation’s civil rights and equal opportunity laws, for ensuring that all individuals – regardless of race, gender, age, disability, and national origin – benefit from activities funded through this Agreement.

2) An example of a best practice under (b) above would be to incorporate key elements of the Department’s Disadvantage Business Enterprise (DBE) program (see 49 C.F.R. Part 26) in contracts under this Agreement. This practice would involve setting a DBE contract goal on contracts funded under this Agreement that have subcontracting possibilities. The goal would reflect the amount of DBE participation on the contract that the Grantee would expect to obtain absent the effects of discrimination and consistent with the availability of certified DBE firms to perform work under the contract. When a DBE contract goal has been established by a Grantee, the contract would be awarded only to a bidder/offer that has met or made (or in the case of a design/build project, is committed to meeting or making) documented, good faith efforts to reach the goal. Good faith efforts are defined as efforts to achieve a DBE goal or other requirement of this Agreement which, by their scope, intensity, and appropriateness to the objective can reasonably be expected to achieve the goal or other requirement.

3) The Grantee must provide FRA a plan for incorporating the above best practice into its implementation of the Project within 30 days following execution of this Agreement. If the Grantee is not able to substantially incorporate Part 26 elements in accordance with the above-described best practice, the Grantee agrees to provide the FRA with a written explanation and an alternative program for ensuring the use of contractors owned and controlled by socially and economically disadvantaged individuals.

12. **Metric System:**

The Grantee agrees to use the metric system of measurement in its Project activities to the extent
practicable, in conformance with applicable regulations, guidelines, and policies that U.S. DOT or FRA may issue. The Metric Conversion Act of 1975, as amended by the Omnibus Trade and Competitiveness Act of 1988 (15 U.S.C. 205), designates the metric system of measurement as the preferred system of weights and measures for United States trade and commerce, and it requires that each agency use the metric system of measurement in its procurements, grants, and other business-related activities, except to the extent that such use is impracticable or likely to cause significant inefficiencies or loss of markets to U.S. firms.

13. Patent Rights:

a. If any invention, improvement, or discovery of the Grantee or any of its third party contractors is conceived or first actually reduced to practice in the course of or under this Project, and that invention, improvement, or discovery is patentable under the laws of the United States of America or any foreign country, the Grantee agrees to notify FRA immediately and provide a detailed report. The rights and responsibilities of the Grantee, third party contractors and FRA with respect to such invention, improvement, or discovery will be determined in accordance with applicable Federal laws, regulations, policies, and any waiver thereof.

b. If the Grantee secures a patent with respect to any invention, improvement, or discovery of the Grantee or any of its third party contractors conceived or first actually reduced to practice in the course of or under this Project, the Grantee agrees to grant to FRA a royalty-free, non-exclusive, and irrevocable license to use and to authorize others to use the patented device or process for Federal Government purposes.

c. The Grantee agrees to include the requirements of the "Patent Rights" section of this Agreement in its third party contracts for planning, research, development, or demonstration under the Project.

14. Rights in Data and Copyrights:

a. The term "subject data" used in this section means recorded information, whether or not copyrighted, that is developed, delivered, or specified to be delivered under this Agreement. The term includes graphic or pictorial delineations in media such as drawings or photographs; text in specifications or related performance or design-type documents; machine forms such as punched cards, magnetic tape, or computer memory printouts; and information retained in computer memory. Examples include, but are not limited to: computer software, engineering drawings and associated lists, specifications, standards, process sheets, manuals, technical reports, catalog item identifications, and related information. The term does not include financial reports, cost analyses, and similar information incidental to Project administration.

b. The following restrictions apply to all subject data first produced in the performance of this Agreement:

1) Except for its own internal use, the Grantee may not publish or reproduce such data in whole or in part, or in any manner or form, nor may the Grantee authorize others to do so, without the written consent of FRA, until such time as FRA may have either released or approved the release of such data to the public; this restriction on publication, however, does not apply to grant agreements with academic institutions.

2) As authorized by 49 C.F.R. § 18.34, or 49 C.F.R. § 19.36, as applicable, FRA reserves a royalty-free, non-exclusive and irrevocable license to reproduce, publish or otherwise use, and to authorize others to use, for Federal Government purposes:
a) Any work developed under a grant, cooperative agreement, sub-grant, sub-agreement, or third party contract, irrespective of whether or not a copyright has been obtained; and

b) Any rights of copyright to which a Grantee, subgrantee, or a third party contractor purchases ownership with Federal assistance.

c. When FRA provides assistance to a Grantee for a Project involving planning, research, or development, it is generally FRA's intent to increase the body of knowledge, rather than to limit the benefits of the Project to those parties that have participated therein. Therefore, unless FRA determines otherwise, the Grantee understands and agrees that, in addition to the rights set forth in preceding portions of this section of this Agreement, FRA may make available to any FRA Grantee, subgrantee, third party contractor, or third party subcontractor, either FRA's license in the copyright to the "subject data" derived under this Agreement or a copy of the "subject data" first produced under this Agreement. In the event that such a Project which is the subject of this Agreement is not completed, for any reason whatsoever, all data developed under that Project shall become subject data as defined herein and shall be delivered as FRA may direct.

d. To the extent permitted by State law, the Grantee agrees to indemnify, save and hold harmless FRA, its officers, agents, and employees acting within the scope of their official duties against any liability, including costs and expenses, resulting from any willful or intentional violation by the Grantee of proprietary rights, copyrights, or right of privacy, arising out of the publication, translation, reproduction, delivery, use, or disposition of any data furnished under this Agreement. The Grantee shall not be required to indemnify FRA for any such liability arising out of the wrongful acts of employees or agents of FRA.

e. Nothing contained in this section on rights in data, shall imply a license to FRA under any patent or be construed as affecting the scope of any license or other right otherwise granted to FRA under any patent.

f. The requirements of this section of this Agreement do not apply to material furnished to the Grantee by FRA and incorporated in the work carried out under this Agreement, provided that such incorporated material is identified by the Grantee at the time of delivery of such work.

g. Unless FRA determines otherwise, the Grantee agrees to include the requirements of this section of this Agreement in its third party contracts for planning, research, development, or demonstration under the Project.

15. Acknowledgment of Support and Disclaimer:

a. An acknowledgment of FRA support and a disclaimer must appear in any grantee publication, whether copyrighted or not, based on or developed under the Agreement, in the following terms:

"This material is based upon work supported by the Federal Railroad Administration under a grant/cooperative agreement, dated ." (Fill-in appropriate identification of grant/cooperative agreement)

b. All grantee publications must also contain the following:

"Any opinions, findings, and conclusions or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the Federal Railroad Administration and/or U.S. DOT."
c. The Grantee agrees to cause to be erected at the site of any construction, and maintain during construction, signs satisfactory to FRA identifying the Project and indicating that FRA is participating in the development of the Project.

16. Reprints of Publications:

At such time as any article resulting from work under this Agreement is published in a scientific, technical, or professional journal or publication, two reprints of the publication should be sent to FRA’s Grant Manager, clearly referenced with the appropriate identifying information.

17. Site Visits:

FRA, through its authorized representatives, has the right, at all reasonable times, to make site visits to review Project accomplishments and management control systems and to provide such technical assistance as may be required. If any site visit is made by FRA on the premises of the Grantee, subgrantee, contractor, or subcontractor under this Agreement, the Grantee shall provide and shall require its subgrantees or subcontractors to provide, all reasonable facilities and assistance for the safety and convenience of FRA representatives in the performance of their duties. All site visits and evaluations shall be performed in such a manner as will not unduly delay work being conducted by the Grantee, subgrantee, contractor, or subcontractor.

18. Safety Oversight:

To the extent applicable, the Grantee agrees to comply with any Federal regulations, laws, or policy and other guidance that FRA or U.S. DOT may issue pertaining to safety oversight in general, and in the performance of this Agreement, in particular.

19. Civil Rights:

The Grantee agrees to comply with all civil rights laws and regulations, in accordance with applicable Federal directives, except to the extent that the FRA determines otherwise in writing. These include, but are not limited to, the following: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) (as implemented by 49 C.F.R. Part 21), which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§ 1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex, (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. § 794), which prohibits discrimination of the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§ 1601-1607), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§ 523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§ 290 dd-3 and 290 ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title V111 of the Civil Rights Act of 1968 (42 U.S.C. §§ 3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing, (i) 49 U.S.C. § 306, which prohibits discrimination on the basis of race, color, national origin, or sex in railroad financial assistance programs; (j) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance was made; and (k) the requirements of any other nondiscrimination statute(s) which may apply to the Grantee.

20. Americans With Disabilities Act:

The Grantee agrees to utilize funds provided under this Agreement in a manner consistent with the
requirements of the Americans With Disabilities Act of 1990, as amended (42 U.S.C. § 12101 et seq.).

21. **Environmental Protection:**

a. All facilities that will be used to perform work under this Agreement shall not be so used unless the facilities are designed and equipped to limit water and air pollution in accordance with all applicable local, state and Federal standards.

b. The Grantee will conduct work under this Agreement, and will require that work that is conducted as a result of this Agreement be in compliance with the following provisions, as modified from time to time, all of which are incorporated herein by reference: section 114 of the Clean Air Act, 42 U.S.C. 7414, and section 308 of the Federal Water Pollution Control Act, 33 U.S.C. 1318, and all regulations issued thereunder. The Grantee certifies that no facilities that will be used to perform work under this Agreement are listed on the List of Violating Facilities maintained by the Environmental Protection Agency ("EPA"). The Grantee will notify the Administrator as soon as it or any contractor or subcontractor receives any communication from the EPA indicating that any facility which will be used to perform work pursuant to this Agreement is under consideration to be listed on the EPA's List of Violating Facilities; provided, however, that the Grantee's duty of notification hereunder shall extend only to those communications of which it is aware, or should reasonably have been aware. The Grantee will include or cause to be included in each contract or subcontract entered into, which contract or subcontract exceeds Fifty Thousand Dollars ($50,000.00) in connection with work performed pursuant to this Agreement, the criteria and requirements of this section and an affirmative covenant requiring such contractor or subcontractor to immediately inform the Grantee upon the receipt of a communication from the EPA concerning the matters set forth herein.

c. The Grantee may not expend any of the funds provided in this agreement on construction or other activities that represent an irretrievable commitment of resources to a particular course of action affecting the environment until after all environmental and historic preservation analyses required by the National Environmental Policy Act (42 U.S.C. 4332)(NEPA), the National Historic Preservation Act (16 U.S.C. 470(f))(NHPA), and related laws and regulations have been completed and the FRA has provided the Grantee with a written notice authorizing the Grantee to proceed.

d. The Grantee shall assist the FRA in its compliance with the provisions of NEPA, the Council on Environmental Quality's regulations implementing NEPA (40 C.F.R. Part 1500 et seq.), FRA's "Procedures for Considering Environmental Impacts" (45 Fed. Reg. 40854, June 16, 1980), as revised May 26, 1999, 64 Fed. Reg. 28545), Section 106 of the NHPA, and related environmental and historic preservation statutes and regulations. As a condition of receiving financial assistance under this agreement, the Grantee may be required to conduct certain environmental analyses and to prepare and submit to the FRA draft documents required under NEPA, NHPA, and related statutes and regulations (including draft environmental assessments and proposed draft and final environmental impact statements).

e. No publicly-owned land from a park, recreational area, or wildlife or waterfowl refuge of national, state, or local significance as determined by the Federal, State, or local officials having jurisdiction thereof, or any land from an historic site of national, state or local significance as so determined by such officials shall be used by the Grantee without the prior written concurrence of FRA. The Grantee shall assist the FRA in complying with the requirements of 49 U.S.C. §303(c).

f. The Grantee agrees to facilitate compliance with the policies of Executive Order No. 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," 42 U.S.C. '4321 note, except to the extent that the FRA determines otherwise in writing.
22. **Project Completion, Audit, Settlement, and Closeout:**

a. **Project Completion.** Within 90 days of the Project completion date or termination by FRA, the Grantee agrees to submit a final Federal Financial Report (Standard Form 425), a certification or summary of Project expenses, and third party audit reports, as applicable.

b. **Audits.** Each governmental Grantee agrees to undertake the audits required by 49 C.F.R. § 18.26 and OMB Circular A-128 or any revision or supplement thereto. Each non-governmental Grantee agrees to undertake the audits required by 49 C.F.R. § 19.26 and OMB Circular A-133 or any revision or supplement thereto.

c. **Remittance of Excess Payments.** If FRA has made payments to the Grantee in excess of the total amount of FRA funding due, the Grantee agrees to promptly remit that excess and interest as may be required by the "Payment by FRA" section of this Attachment.

d. **Project Closeout.** Project closeout occurs when all required Project work and all administrative procedures described in 49 C.F.R. Part 18, or 49 C.F.R. Part 19, as applicable, have been completed, and when FRA notifies the Grantee and forwards the final Federal assistance payment, or when FRA acknowledges the Grantee's remittance of the proper refund. Project closeout shall not invalidate any continuing obligations imposed on the Grantee by this Agreement or by the FRA's final notification or acknowledgment.

23. **Right of FRA to Terminate:**

a. Upon written notice, the Grantee agrees that FRA may suspend or terminate all or part of the financial assistance provided herein if the Grantee has violated the terms of this Agreement, or if FRA determines that the purposes of the statute under which the Project is authorized would not be adequately served by continuation of Federal financial assistance for the Project. Any failure to make reasonable progress on the Project or other violation of this Agreement that significantly endangers substantial performance of the Project shall provide sufficient grounds for FRA to terminate this Agreement.

b. In general, termination of any financial assistance under this Agreement will not invalidate obligations properly incurred by the Grantee and concurred in by FRA before the termination date, to the extent those obligations cannot be canceled. However, if FRA determines that the Grantee has willfully misused Federal assistance funds by failing to make adequate progress, failing to make reasonable use of the Project property, facilities, or equipment, or failing to adhere to the terms of this Agreement, FRA reserves the right to require the Grantee to refund the entire amount of FRA funds provided under this Agreement or any lesser amount as may be determined by FRA.

c. Expiration of any Project time period established for this Project does not, by itself, constitute an expiration or termination of this Agreement.

24. **Transparency Act Requirements—Reporting Subawards and Executive Compensation (Does not Apply to American Recovery and Reinvestment Act Funds):**

The Grantee will insert the following clause in all first-tier subgrants of $25,000 or more--

a. **Reporting of First-Tier Subawards.**

1) Applicability. Unless you are exempt as provided in paragraph d. of this section, you must report each action that obligates $25,000 or more in Federal funds that does not include Recovery funds (as defined in section 1512(a)(2) of the American Recovery and Reinvestment Act of 2009, Pub. L. 111-
5) for a subaward to an entity (see definitions in subsection e. of this section).

2) Where and when to report.

a. You must report each obligating action described in subsection a.1. of this section to http://www.fsrs.gov.

b. For subaward information, report no later than the end of the month following the month in which the obligation was made. (For example, if the obligation was made on November 7, 2010, the obligation must be reported by no later than December 31, 2010.)

3) What to report. You must report the information about each obligating action that the submission instructions posted at http://www.fsrs.gov specify.

b. Reporting Total Compensation of Recipient Executives.

1) Applicability and what to report. You must report total compensation for each of your five most highly compensated executives for the preceding completed fiscal year, if—

a. the total Federal funding authorized to date under this award is $25,000 or more;

b. in the preceding fiscal year, you received—

(1) 80 percent or more of your annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards); and

(2) $25,000,000 or more in annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards); and

c. The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at http://www.sec.gov/answers/execomp.htm.)

2) Where and when to report. You must report executive total compensation described in subsection b.1. of this section:

a. As part of your registration profile at http://www.ccr.gov.

b. By the end of the month following the month in which this award is made, and annually thereafter.

c. Reporting of Total Compensation of Subrecipient Executives.

1) Applicability and what to report. Unless you are exempt as provided in subsection d. of this section, for each first-tier subrecipient under this award, you shall report the names and total compensation of each of the subrecipient's five most highly compensated executives for the subrecipient's preceding completed fiscal year, if—

a. in the subrecipient's preceding fiscal year, the subrecipient received—
(1) 80 percent or more of its annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards); and

(2) $25,000,000 or more in annual gross revenues from Federal procurement contracts (and subcontracts), and Federal financial assistance subject to the Transparency Act (and subawards); and

b. The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at http://www.sec.gov/answers/execomp.htm.)

2) Where and when to report. You must report subrecipient executive total compensation described in subsection c.1. of this section:

a. To the recipient.

b. By the end of the month following the month during which you make the subaward. For example, if a subaward is obligated on any date during the month of October of a given year (i.e., between October 1 and 31), you must report any required compensation information of the subrecipient by November 30 of that year.

d. Exemptions.

If, in the previous tax year, you had gross income, from all sources, under $300,000, you are exempt from the requirements to report:

a. Subawards,

and

b. The total compensation of the five most highly compensated executives of any subrecipient.

e. Definitions. For purposes of this section:

1) Entity means all of the following, as defined in 2 CFR part 25:

a. A Governmental organization, which is a State, local government, or Indian tribe;

b. A foreign public entity;

c. A domestic or foreign nonprofit organization;

d. A domestic or foreign for-profit organization;

e. A Federal agency, but only as a subrecipient under an award or subaward to a non-Federal entity.

2) Executive means officers, managing partners, or any other employees in management positions.

3) Subaward:

a. This term means a legal instrument to provide support for the performance of any portion of the
substantive project or program for which you received this award and that you as the recipient award to an eligible subrecipient.

b. The term does not include your procurement of property and services needed to carry out the project or program (for further explanation, see Sec. ——.210 of the attachment to OMB Circular A-133, “Audits of States, Local Governments, and Non-Profit Organizations”).

c. A subaward may be provided through any legal agreement, including an agreement that you or a subrecipient considers a contract.

4) Subrecipient means an entity that:

a. Receives a subaward from you (the recipient) under this award; and

b. Is accountable to you for the use of the Federal funds provided by the subaward.

5) Total compensation means the cash and noncash dollar value earned by the executive during the recipient's or subrecipient's preceding fiscal year and includes the following (for more information see 17 CFR 229.402(c)(2)):

a. Salary and bonus.

b. Awards of stock, stock options, and stock appreciation rights. Use the dollar amount recognized for financial statement reporting purposes with respect to the fiscal year in accordance with the Statement of Financial Accounting Standards No. 123 (Revised 2004) (FAS 123R), Shared Based Payments.

c. Earnings for services under non-equity incentive plans. This does not include group life, health, hospitalization or medical reimbursement plans that do not discriminate in favor of executives, and are available generally to all salaried employees.

d. Change in pension value. This is the change in present value of defined benefit and actuarial pension plans.

e. Above-market earnings on deferred compensation which is not tax-qualified.

f. Other compensation, if the aggregate value of all such other compensation (e.g. severance, termination payments, value of life insurance paid on behalf of the employee, perquisites or property) for the executive exceeds $10,000.

25. Entire Agreement:

This Agreement constitutes the entire agreement between the parties. All prior discussions and understandings concerning such scope and subject matter are superseded by this Agreement.

26. Grant Amendments:

Modifications to this Agreement may be made only in writing, signed by the each party's authorized representative, and specifically referred to as a modification to this Agreement.

27. Flow Down Provisions:
AWARD ATTACHMENTS

Transportation, Massachusetts Executive Office

1. Statement of Work, Attachment 3
2. Quarterly Progress Report for FRA, Attachment 4
STATEMENT OF WORK

Knowledge Corridor Restore Vermonter Project

I. BACKGROUND

The Knowledge Corridor Restore Vermonter Project provides for the restoration of Amtrak's *Vermonter* service to the Connecticut River mainline between Springfield, MA, and East Northfield, MA (this segment of railroad is also known as the Knowledge Corridor), as well as for the construction of a bicycle/pedestrian underpass under the corridor in the town of Northampton, MA (the Project). The Massachusetts Department of Transportation (MassDOT or the Grantee) has developed a Service Development Plan for the Knowledge Corridor project. In the Service Development Plan, MassDOT determined that the restoration of passenger rail service on the Knowledge Corridor would be the best way to reduce delays, serve a more populated corridor, and create a less circuitous route for the *Vermonter*. The Project is located on the Connecticut River Main Line owned by Pan Am Southern (PAS) and is a joint venture of Pan Am Railways and Norfolk Southern Corp.

The Amtrak *Vermonter* currently operates daily in each direction between St. Albans, VT, and Washington, DC. The *Vermonter* currently makes use of the New England Central Railroad (NECR) and CSX lines between East Northfield and Springfield, MA. The Project will relocate the *Vermonter* to its former and more direct route over a PAS line between East Northfield and Springfield, MA. The current routing of the *Vermonter* north of East Northfield and south of Springfield, MA will remain unchanged.

This Project is the first phase of a longer-term MassDOT vision for the Massachusetts Knowledge Corridor.

The completion of the *Vermonter* realignment and the bicycle/pedestrian underpass will enable consideration of additional corridor enhancements that further improve intercity passenger rail service and safety measures.

II. GENERAL OBJECTIVE

The Project involves the reconstruction of the Knowledge Corridor owned by PAS and located between Springfield and East Northfield in the Connecticut River Valley. MassDOT, through its Rail & Transit Division, and the Massachusetts Bay Transportation Authority (MBTA), which fall under the oversight of MassDOT, will undertake this Project. MassDOT will ensure that these agencies and all contractors and subcontractors coordinate and carry out the respective tasks set forth in this statement of work. The railroad reconstruction will be done in accord with the final design document completed under Task 1 of this statement of work. PAS will undertake the construction of the Project by using railroad force account. PAS will furnish the labor and equipment for rehabilitation of track, signals, bridges, and other structures. MBTA will procure and furnish the materials to PAS. Any necessary third-party contracts will be issued
and administered by MBTA. Construction is expected to require two construction seasons to complete.

The result of the Project will be the relocation of the *Vermonter* service to its historic alignment on the Knowledge Corridor. Travel times will be reduced, and a time-consuming reverse maneuver at Palmer, which requires the engineer to change ends of the train and operate the consist in the reverse direction, will be eliminated.

Relocating the *Vermonter* and improving the rail infrastructure will:

1. Shorten the schedule and improve the effectiveness of the existing service.
2. Provide two new station stops at Greenfield and Northampton on the relocated route.
3. Rehabilitate mainline, sidings, and structures; install new track and provide new sidings and crossovers.
4. Offer a sound foundation for passenger rail service on this corridor in the future.
5. Eliminate a reverse maneuver at Palmer.

Constructing a bicycle/pedestrian underpass under the mainline in Northampton will:

1. Promote safety for passengers and rail operators.
2. Provide a separation between trains and pedestrians/bicyclists.

All final design and construction work will be done through agreements between the MBTA and PAS (the Construction Agreement). MassDOT will designate the MBTA to oversee the implementation of the Project. MBTA will also be responsible for procuring all necessary materials. It is expected that material and construction specifications will be stipulated by PAS. For the work that will not be performed by PAS railroad forces, including its self-procured contractors, specifications and bid documents will be prepared jointly by MBTA and PAS so that MBTA can solicit contractors to perform the necessary work. Anticipated Project elements requiring the use of contractors include the construction of station platforms and the bicycle/pedestrian underpass at Northampton. PAS will perform all signal and communication evaluation and design, including that for highway grade crossing warning devices.

### III. SCOPE OF ACTIVITIES

#### a. Geographical and Physical Boundaries

The Project area is located within the area of central/western Massachusetts known as the Knowledge Corridor, which runs between Springfield and East Northfield (both in Massachusetts) within the Connecticut River Valley. The Knowledge Corridor is traversed north-south by Interstate 91 and the PAS rail lines. Major communities include Springfield, Holyoke, Northampton, Greenfield, and Northfield. The Grantee shall perform final design and construction of railroad improvements between mileposts (MP) 0.3 and 49.6 on the PAS Connecticut River mainline.
b. Description of Work

Design Notes:

1. The right-of-way from Springfield (MP 0.3) to north of Greenfield (approximately MP 40) formerly included two main tracks. The right-of-way from approximately MP 40 to the connection with the NECR at East Northfield at MP 49.5 was single track.

2. All new rail and special trackwork will be 132- or 136-pound continuous welded rail (CWR). The option to use 132- or 136-pound rail and special trackwork will be developed as part of the final design process. This will support the solicitation of bids for both rail sections. The final selection of which rail section to use will be made by MBTA based on the overall best value to the Project. Additionally, upon Federal Railroad Administration (FRA) written approval, MBTA-owned 115-pound relay rail may be welded and supplied to the Project for installation on the mainline. The location for this installation would be north of CPR 36 in Greenfield.

Task 1. Final Design

MassDOT will complete final design of the realignment on the Connecticut River mainline on infrastructure owned by PAS and located between Springfield and East Northfield in the Connecticut River Valley, in accordance with the preliminary engineering documentation already approved by all the Project stakeholders and file with FRA.

Sub Task 1.1 – Track Design

- Final design for Springfield track rehabilitation north of the CSX diamond.
  - Rehabilitation of 1.3 miles of existing side track, extension of 0.5 miles of freight side track and rehabilitation of 0.1 miles of track 11 (wye track) in Springfield.
- Final design for Holyoke track rehabilitation.
  - Rehabilitation of 0.7 miles of existing side track in Holyoke.
- Final design for Mt. Tom track rehabilitation.
  - Rehabilitation of 1.2 miles of siding and extension of 0.4 miles of side track at Mt. Tom.
- Final design for Northampton track rehabilitation.
  - 2.2 miles of new track and reconfiguration of 0.4 miles of existing mainline for freight running track in Northampton.
- Final design for South Deerfield track rehabilitation.
  - Rehabilitation of 0.4 miles of existing side track and extension of 0.5 miles of side track in South Deerfield.
- Final design for Deerfield track rehabilitation.
  - Rehabilitation of 2.1 miles of existing side track in Deerfield.
- Final design for Greenfield station track.
  - 0.3 miles of new station track in Greenfield.
- Final design for Industrial Siding
  - Extension of 0.1 miles of an industrial siding at Agway (MP 45).
An evaluation of curve super elevation for existing track and recommendations for any required improvements that may be necessary. The design of curve super elevation will be based on a maximum of 4 inches of super elevation, and consideration shall be given to the operation of passenger trains with speed limits associated with a maximum of 5 inches of unbalanced elevation.

During final design, assessment of existing mainline material will be made to determine the plan for relaying existing mainline turnout material into industrial side-track connections. Relay rail recovered and determined to be fit for reuse and reused within the Project limits will be installed only on side tracks or passing tracks required to support or benefit the operation of intercity passenger service. All other reuse of relay rail on industry track within the Project limits without direct benefits to intercity passenger operations shall be considered as reuse outside of the Project Limits and therefore subject to salvage credit for rail, turnouts, or other reused track material. The appropriate dollar value to be assigned to the salvage credit for both reused and unused materials shall be developed by MassDOT and approved by FRA. An initial salvage credit has been included in the current Project budget.

**Sub Task 1.2 – Grade Crossing Design**

- Prepare grade crossing designs including profile and alignment of track and highway. The use of a diagnostic review team will be implemented during final design to identify recommended warning devices and improvements for each grade crossing. The specific warning device for each grade crossing will be determined by MassDOT in coordination with the Massachusetts Department of Public Utilities during Project final design.

**Sub Task 1.3 – Bicycle/Pedestrian Underpass Design**

- Preparation of the plan and profile of approaches to the underpass, as well as typical sections and details.
- Development of required right-of-way agreements for installation of the bicycle/pedestrian crossing.
- Erosion and sediment control plans for the bicycle/pedestrian underpass.
- Final design of the underpass.
- Coordination with PAS to determine acceptable outages for construction.

**Sub Task 1.4 – Station Design**

- The design of a new station platform at Greenfield, including platform lighting. The design of the new station platform will integrate with the new Franklin Regional Transit Center; the new station platform will be accessed through the Transit Center. Supporting station services such as parking will be provided through a separate Transit Center Project. A ticket kiosk may be provided if Amtrak chooses to do so. The stations and associated amenities are being designed based on the current configuration and operation of the *Vermont* north of Springfield. Specifically, Amtrak does not require a station agent because tickets must be prepurchased. Amtrak advised that the stations at Greenfield and Northampton will be consistent with the current operations plan. The platform itself will be a low-level platform constructed with an appropriate surface. A
canopy over the platform will be included in the design. Amtrak’s station planning guidelines will be used where applicable in the development of the platform design.

- The platform will be served by a section of double track—to be constructed off the mainline track—which may be used both by passenger and freight service. Turnouts to the station track will be designed to minimize any impacts to passenger movements. Design elements to be considered will be the installation of a number 15 righthand turnout on the north end of the passenger track and provisions for future modifications to control point F (CPF) 385 (to include installation of a second main track that would connect directly to the station track). Implementation of the improvements to CPF 385 will be implemented contingent on sufficient funds being available following completion of required elements of the work.

- A civil site and grading plan at this station will be prepared for integration with the Transit Center. Erosion and sediment control plans for the station platform will also be prepared.

- The design for rehabilitation of the Northampton station platform will include the design of an Amtrak-approved kiosk-style waiting facility and platform lighting. A canopy over the platform will be included in the design. The southbound track formerly serving the station track will be restored for service as the station track and will be configured as the mainline from CPF 16 to 18. The existing mainline track will be improved to support the service and converted to a passing/running track. Turnouts to the station track will be designed to minimize any impacts to passenger movements. The proposed Northampton station platform will be located at the existing platform area just south of the Union Station restaurant off Railroad Avenue. The existing platform will be reconstructed resulting in a low-level platform. The station will utilize the existing municipal parking facility located adjacent to the platform and the restaurant.

- Civil site, grading, and striping plans will be prepared to provide curb cuts, accessible ramps, and parking to service the platform. Erosion and sediment control plans for the station platform will also be prepared.

- The designs developed for the stations will meet all Americans with Disabilities Act (ADA) requirements.

- The Project does not include construction of a station at Holyoke, MA. Because there is a desire within the region to create a Holyoke station in the future, consideration will be given during final design to potential station locations that will facilitate and not preclude the installation of a future station.

Sub Task 1.5 – Utilities

- Research existing fiber-optic locations and determine mitigation for impacts.
- Perform existing utility research at the locations of proposed stations, structures, and grade crossings.
- Coordinate Dig Safe requests with PAS.
- Prepare proposed utility plans for proposed station platforms.
- Identify utility impacts at grade crossings and develop mitigation and coordinate with PAS.
- Prepare proposed electric utility plans to service lights at the bicycle/pedestrian crossing.
Sub Task 1.6 – Topographic Survey

- Ground survey in areas of new stations and new track construction.
- Ground survey at bicycle/pedestrian underpass.
- Ground surveys at grade crossings.
- Ground survey at existing bridges and structures in selected locations to support new track construction.

Sub Task 1.7 – Geotechnical

- Investigation to analyze subsurface conditions.
- Recommendations to support the design of platform and facility foundations and the bicycle/pedestrian underpass.

Sub Task 1.8 – Permitting

- Investigation of any applicable local and State permitting requirements.
- Preparation of a permitting matrix indicating required permits, permitting agencies, approximate review durations, the process for approvals, and permitting status.
- Analysis of the need for environmental subsurface investigations at station and structure sites.

Sub Task 1.9 – Coordination

- Coordination with Amtrak on proposed station designs, platform lengths, and facilities.
- Coordination with the Connecticut Department of Transportation.
- Coordination with Amtrak/Vermont/NECR on proposed service operations.
- Coordination with CSX on proposed service operations.
- Coordination with the City of Northampton for joint use of facilities at the station.
- Coordination with the Franklin Regional Transit Authority on the Greenfield station.

Task 2. Construction Oversight

Construction of the Project will be undertaken by PAS through the use of the Construction Agreement. PAS railroad forces and contracted services obtained by the MBTA will be used to execute the work, and will be responsible for coordinating the work to maintain existing train operations. MassDOT, through the MBTA, will provide administration of the work during construction.

Task 3. Main Track and Siding Improvements

Improvements to mainline track will include installation of 132- or 136-pound CWR and spot replacement of ties, as noted in the cost estimate. The option to use 132- or 136-pound rail and special trackwork will be developed as part of the final design process. This will support the solicitation of bids for both rail sections. The final selection of which rail section to use will be made by MBTA based on the overall best value to the Project. Additionally, upon FRA written
approval, MBTA-owned 115-pound relay rail may be welded and supplied to the Project for installation on the mainline. The location for this installation would be north of CPR 36 in Greenfield.

The rehabilitation of existing mainline will include the renewal of approximately 12–14 ties per 39 feet of rail, whereas the side-track rehabilitation will include a 50% tie renewal. The sections of new double-track and side-track construction will include all new ties.

Improvements will include:

Sub Task 3.1 – Springfield Rehabilitation
- Rehabilitation of 1.3 miles of existing side track, extension of 0.5 miles of freight side track and rehabilitation of 0.1 miles of track 11 (wye track) in Springfield. It is anticipated that relay rail from the mainline rail replacement will be installed on the side track and that approximately 50% of the ties will be replaced on the rehabilitated track. The track extension will use relay rail from the mainline rail replacement in concert with all new ties, ballast, and other track materials (OTM).

Sub Task 3.2 – Holyoke Rehabilitation
- Rehabilitation of 0.7 miles of existing side track in Holyoke. It is anticipated that relay rail from the mainline rail replacement will be installed on the side track and that approximately 50% of the ties will be replaced on the rehabilitated track.

Sub Task 3.3 – Mt. Tom Rehabilitation
- Rehabilitation of 1.2 miles of siding and extension of 0.4 miles of side track at Mt. Tom. It is anticipated that relay rail from the mainline rail replacement will be installed on the side track and that approximately 50% of the ties will be replaced on the rehabilitated track. The track extension will use relay rail from the mainline rail replacement in concert with all new ties, ballast, and OTM.

Sub Task 3.4 – Northampton New Track and Configuration
- A total of 2.2 miles of new track and reconfiguration of 0.4 miles of existing mainline for freight running track in Northampton. Installation of new track will include all new rail, ties, ballast, and OTM. The 0.4 miles of track reconfiguration will use relay rail from the mainline rail replacement in concert will all new ties, ballast, and OTM.

Sub Task 3.5 – South Deerfield Rehabilitation
- Rehabilitation of 0.4 miles of existing side track and extension of 0.5 miles of side track in South Deerfield. It is anticipated that relay rail from the mainline rail replacement will be installed on the side track and that approximately 50% of the ties will be replaced on the rehabilitated track. The track extension will use relay rail from the mainline rail replacement in concert will all new ties, ballast, and OTM.

Sub Task 3.6 – Deerfield Rehabilitation
- Rehabilitation of 2.1 miles of existing side track in Deerfield. It is anticipated that relay rail from the mainline rail replacement will be installed on the side track and that approximately 50% of the ties will be replaced on the rehabilitated track.
• A total of 0.3 miles of new track in Greenfield. Installation will include all new rail, ties, ballast, and OTM.

Sub Task 3.7 – Agway Extension
• Extension of 0.1 miles of an industrial siding at Agway (MP 45). The track extension will use relay rail from the mainline rail replacement in concert will all new ties, ballast, and OTM.

Task 4. Installation of New Rail
All mainline track from Springfield (MP 0.3) to East Northfield (MP 49.6) will be replaced with new 132- or 136-pound CWR. Along the mainline, existing tie plates, spikes, anchors, and OTM will be removed and replaced with new material. The sections of new double-track mainline will include all new ties, ballast, and OTM.

Task 5. Special Trackwork
Existing turnouts and crossovers will be replaced with new rail material. Number 10 and Number 15 turnouts will be used for new construction on mainline or passing sidings. Rehabilitation of mainline and side-track turnouts will include replacement of switch timbers. Turnout replacement will follow design plans.

During final design, assessment of existing mainline material will be made to determine the plan for relaying existing mainline turnout material into industrial side-track connections.

The details of the turnouts to be repaired/replaced as part of this Project are identified in the previously submitted document, titled “Turnout Size and Location for the Knowledge Corridor Project,” on file with the FRA.

Task 6. Roadbed Improvements
The Connecticut River line currently consists of a single mainline track with controlled passing sidings. The roadbed from Springfield to north of Greenfield formerly was a double mainline track. The existing roadbed is generally in good condition and will not require subgrade improvements. New sidings and crossovers will be located in areas where tracks historically existed in the past and will utilize the former track bed in accordance with the preliminary design plans and estimate.

The existing ballast is generally in good condition and does not need to be replaced. Supplemental new ballast of approximately 500 tons per mile will be required for final alignment and surfacing work on existing mainline track that will receive new CWR. Supplemental new ballast will not extend beyond the limits of the existing ballast.

New track construction will be configured with a new full ballast section with a minimum of 9 inches of ballast under ties or approximately 3,500 tons of ballast per mile. Up to 4 inches of superelevation will be installed on curves identified for such work in the final design.
Task 7. Bridge Improvements

Bridges located on the Connecticut River mainline are subject to a regular inspection and maintenance program conducted by PAS. A visual survey of the structures located along the line did not reveal the need for extensive bridge rehabilitation. MassDOT will work with PAS to confirm this condition during final design. Specifically, an underwater scour inspection will be performed, and an allowance for necessary repairs has been included in the cost estimate.

Additionally, a complete inspection and rating of bridges shall be performed during final design. Provisions for the cost of the inspection and rating work has been included in the cost estimate, as well as a cost allowance for a modest amount of design and repair of currently unknown bridge repairs.

New CWR rail will be installed over each bridge and side tracks, as noted in the preliminary design and noted below.

<table>
<thead>
<tr>
<th>Location</th>
<th>MP</th>
<th>Bridge Ties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Springfield</td>
<td>0.55</td>
<td>27</td>
</tr>
<tr>
<td>Holyoke</td>
<td>7.09</td>
<td>655</td>
</tr>
<tr>
<td>Holyoke</td>
<td>7.97</td>
<td>570</td>
</tr>
<tr>
<td>Mt. Tom</td>
<td>14.86</td>
<td>270</td>
</tr>
<tr>
<td>Deerfield</td>
<td>34.82</td>
<td>630</td>
</tr>
<tr>
<td>Deerfield</td>
<td>34.95</td>
<td>90</td>
</tr>
</tbody>
</table>

Task 8. Bicycle/Pedestrian Underpass

As part of this Project, a bicycle/pedestrian underpass will be constructed at approximately MP 17.8 in Northampton. The underpass will be used to connect the existing bicycle/pedestrian paths that pass or terminate immediately adjacent to the railroad right-of-way in the Project area.

Task 9. Grade Crossings

All at-grade public highway/rail crossings, as noted on the following list, will be improved to include provision of an active warning device. The active warning device will consist of flashing lights, bells, and crossing gates, subject to approval of the Massachusetts Department of Public Utilities.

<table>
<thead>
<tr>
<th>No.</th>
<th>MP</th>
<th>Crossing ID</th>
<th>Street</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>2.10</td>
<td>052613W</td>
<td>Wason Avenue</td>
</tr>
<tr>
<td>2.</td>
<td>2.41</td>
<td>052615K</td>
<td>Plainfield Street</td>
</tr>
<tr>
<td>3.</td>
<td>7.18</td>
<td>-</td>
<td>N. Canal Street</td>
</tr>
</tbody>
</table>
### List of Private Grade Crossings

<table>
<thead>
<tr>
<th>No.</th>
<th>MP</th>
<th>Protection</th>
<th>Street</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>13.10</td>
<td>Crossbucks</td>
<td>Crossing @ MP 13.1</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>14.32</td>
<td>Gates</td>
<td>Holyoke Water and Power</td>
<td>Relay Material</td>
</tr>
<tr>
<td>3.</td>
<td>16.00</td>
<td>Crossbucks</td>
<td>Crossing @ MP 16.0</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>32.10</td>
<td>Crossbucks</td>
<td>Crossing @ MP 32.1</td>
<td></td>
</tr>
</tbody>
</table>

All grade crossing upgrades will be finalized during final design and submitted to FRA for review and approval.
**Task 10. Signals and Train Control**

The existing signal system will be improved. Improvements will include:

- Restoration of the signal system in the area between Greenfield and East Northfield, including the installation of three new signals (at MPs 39.1, 42.4 and 46.3) and installation of one new interlocking (MP 36.50).
- Reconstruction of the existing automatic block signal system, including the installation of three new signals (at MPs 5.0, 20.5 and 28.6) and repeaters (at MPs 10.0, 23.80, 26.15, and 30.59).
- Existing control point modifications and upgrades including the rehabilitation of control points CPRs 1, 18, 33, 35 and CPF 385.
- Installation of electric unlocks including the installation of ten new locks (at MPs 7.1, 7.8, 7.9, 15.0, 15.4, 27.2, 27.6, 28.9, 45.0, and 45.8) and the rehabilitation of one lock (at MP 14.50).
- Installation of new interlockings (at CPRs 2, 13 and 36).
- Installation of a new defect detector system (at MP 30).
- Engineering support and contracted services provided to assist in the implementation of the design and construction of the Project scope.
- Design of signal improvements, as planned to be completed by railroad signal designers and reviewed by MassDOT representatives.

Design of the signal system will be implemented to accommodate initial rail service at 60-mph MAS and future operation at 79-mph MAS.

**Task 11. Station Platforms**

All platform designs will be developed in compliance with Americans with Disabilities Act requirements and operating criteria from Amtrak and PAS, including the use of lifts for low-level platforms.

**Sub Task 11.1—Greenfield**

- A station platform will be provided in Greenfield adjacent to the proposed Franklin Regional Transit Center. The station platform will be accessed through the Transit Center. The platform itself will be a low-level platform constructed with an appropriate surface, and it will be served by a new siding track constructed off the mainline track that may be used both by passenger and freight service.

**Sub Task 11.2—Northhampton**

- The proposed Northampton station platform will be located at the existing platform area just south of the former Union Station off Railroad Avenue. The existing platform will be reconstructed resulting in a low-level platform.
c. Deliverables/Prerequisites

<table>
<thead>
<tr>
<th>#</th>
<th>Deliverable Name</th>
<th>Deliverable Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>MassDOT-VTrans Memorandum of Agreement</td>
<td>Within 30 days of the execution of this cooperative agreement and before commencing with final design activities, the Grantee shall provide an FRA approved agreement signed between MassDOT and the Vermont Agency of Transportation identifying operating and maintenance responsibilities associated with the Project.</td>
</tr>
<tr>
<td>2</td>
<td>Operating Agreement</td>
<td>Before commencing with Project construction activities, the Grantee shall provide a signed operating agreement between Amtrak and Pan Am Southern allowing Amtrak to serve the Knowledge Corridor.</td>
</tr>
<tr>
<td>3</td>
<td>Salvage Value Credit</td>
<td>Before commencing with Project construction activities, the Grantee shall provide a finalized credit with supporting documentation, approved by the FRA, towards the Project for the salvage value of the materials removed from the Project. Any increased Project scope funded with the salvage value credit must first be approved by FRA in writing.</td>
</tr>
<tr>
<td>4</td>
<td>Project Schedule</td>
<td>Before commencing with Project construction activities, the Grantee shall provide a detailed schedule, due to FRA within 30 days after execution of this cooperative agreement.</td>
</tr>
<tr>
<td>5</td>
<td>Confirmed approval of Preliminary Engineering</td>
<td>Within 60 days of the execution of this cooperative agreement, the Grantee shall provide FRA with correspondence from project stakeholders confirming their continued approval of the project design with respect to minor changes made to the preliminary engineering plans after their official sign-off.</td>
</tr>
<tr>
<td>6</td>
<td>Signal Plans</td>
<td>Within 180 days of the execution of this cooperative agreement, the Grantee shall provide FRA with an updated set of Signal Plans which shall include a set of route and aspect charts for FRA review and written approval.</td>
</tr>
<tr>
<td>7</td>
<td>Final Design Drawings</td>
<td>Before commencing with Project construction activities, the Grantee shall provide FRA with the final design drawings for the track, signal, and platform work for written acceptance.</td>
</tr>
</tbody>
</table>
IV. PROJECT SCHEDULE

The period of performance for the above work shall begin July 8, 2011, and end November 30, 2013. A detailed schedule, to be approved by FRA in writing, will be provided as one of the first Project deliverables, due to FRA within 30 days after execution of this cooperative agreement. Modifications to the schedule must be approved in writing by FRA before taking effect.

V. PROJECT ESTIMATE/BUDGET

The total cost of the Project is $75,050,000, for which the FRA through this cooperative agreement will contribute 97.0020% of the total cost but not more than $72,800,000. Any additional costs beyond $72,800,000 shall be borne by the Grantee. A detailed budget is on file with FRA containing additional Project cost information. FRA must approve any modifications to the budget before they may take effect. The budget shall be revised, based upon the results of final design refinements. The revised budget will be submitted to FRA for review and approval.

a. Project Cost Details

<table>
<thead>
<tr>
<th>Task 1: Final Design</th>
<th>$2,420,000</th>
</tr>
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<tbody>
<tr>
<td>Task 2: Construction</td>
<td>$72,630,000</td>
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Total Project Cost: $75,050,000

b. Funding Sources

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Project Contribution Amount</th>
<th>Percentage of Total Project Cost</th>
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</thead>
<tbody>
<tr>
<td>Federal Contribution</td>
<td>$72,800,000</td>
<td>97.0020%</td>
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<tr>
<td>Non-Federal Contribution</td>
<td>$2,250,000</td>
<td>2.9980%</td>
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<tr>
<td>TOTAL</td>
<td>$75,050,000</td>
<td>100.0000%</td>
</tr>
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</table>
VI. **PROJECT COORDINATION**
The Grantee shall perform all tasks required for the Project through a coordinated process, including all railroad owners, operators, and funding partners within the Project area.

- Pan Am Southern, LLC
- Springfield Terminal Railway Company
- Amtrak
- State of Vermont through its Vermont Agency of Transportation (VTrans),
- Commonwealth of Massachusetts through MassDOT
- FRA

VII. **REPORTING OF PROJECT BENEFITS**
In accordance with schedules and the requirements to be agreed to by FRA and the Grantee, MassDOT shall provide to FRA regular reports on performance measures.

- Total host responsible delays in delay-minutes per 10,000 train-miles incurred by the intercity passenger trains operating on the Connecticut River mainline, between Springfield and East Northfield, MA, compared with the same quarters in the 5 years immediately preceding the date of commencement of the Project, including:
  - Freight train interference
  - Passenger train interference
  - Commuter train interference
  - Route delays
  - Slow orders
  - A detailed description of any differences in the schedule of intercity passenger rail services making use of the Project improvements versus the schedule in place during the same quarters in the 5 years immediately preceding the date of commencement of the Project.

VIII. **PROJECT MANAGEMENT**

**Project Team**

The Project Team will consist of the combined staff of MBTA, the Design Consultant, and MassDOT. The Project Team will also include members of, or be responsible for regular consultation with, other key support and oversight organizations, such as Amtrak, VTrans, PAS, Franklin Regional Transit Authority, and the Pioneer Valley Planning Commission, as well as support staff from MassDOT Planning and other State agencies involved in programming Federal ARRA funds and providing reports to State and Federal oversight personnel.
Project Approach

The Project Team will work towards the common goal of successfully completing the Project, and complying with the terms of this cooperative agreement and applicable terms of the stakeholder agreements. The Project Team will be responsible for moving the design from preliminary engineering to the completion of the final design required for construction, completion of any environmental documents, and submission of deliverables required as part of this statement of work. Construction will be accomplished through an agreement with PAS, in accordance with the terms of the MassDOT/PAS Agreement.

MBTA will undertake final design and permitting of the Project in cooperation with the other stakeholders. MBTA will oversee the construction and installation of improvements to the Knowledge Corridor in accordance with the Project Management Plan (PMP) (on file with the FRA) and the Project schedule. The PMP and Project schedule will be finalized during final design, submitted to FRA for approval, and will become part of the Construction Agreement to be executed by MassDOT and PAS.

MassDOT and the MBTA will draw upon staff and resources available through their related transportation departments to ensure the successful completion of the Project, in accordance with applicable contractual agreements, including the terms and conditions of this cooperative agreement, and related regulatory requirements. The MBTA will retain the engineering and consulting team that performed the preliminary engineering and environmental analyses for the Project to complete the final design. MBTA will provide oversight of Project construction, subject to compliance with applicable State and Federal (including ARRA) contracting and funding requirements. MBTA will be supported by the Commonwealth’s transportation agencies and departments. Construction will be carried out by PAS and its affiliated companies under a force account agreement.

The host railroad, PAS, has demonstrated the ability to perform similar work to what is proposed for the Knowledge Corridor under force account agreements in the past. PAS will play a significant role in performing the required improvements. Any outstanding issues regarding construction activities and results will be addressed in the Construction Agreement.
Quarterly Progress Report for FRA

<table>
<thead>
<tr>
<th>Grant No.</th>
<th>Performance Progress</th>
<th>Financial Progress</th>
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<tbody>
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<td>WBS No.</td>
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<td>Funding Level:</td>
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<td>Description</td>
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<td>End Date:</td>
<td>Remaining:</td>
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<tr>
<td>FRA Manager:</td>
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<td>% Expended:</td>
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Project Description:

Significant Accomplishments This Period:

### Project Progress

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<tr>
<th>Milestones and Deliverables:</th>
<th>Start</th>
<th>Planned Completion</th>
<th>Revised Completion</th>
<th>Actual Completion</th>
<th>Planned %</th>
<th>Actual % Complete</th>
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</thead>
<tbody>
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</tbody>
</table>

Technical/Cost/Schedule Problems:

Work Planned for Next Period:

T:/My Documents/Grants Management/NGA/NGA Attachments/[Quarterly Progress Report for FRA.xls]Template
# Grant/Cooperative Agreement

## 1. RECIPIENT NAME AND ADDRESS
Transportation, Massachusetts Executive Office
10 Park Plz Ste 3170
Boston, MA 02116-3979

## 2. AGREEMENT NUMBER: FR-HSR-0040-11-01-01

## 3. AMENDMENT NO. 1

## 4. PROJECT PERFORMANCE PERIOD: FROM 07/08/2011 TO 03/31/2016

## 5. FEDERAL FUNDING PERIOD: FROM 07/08/2011 TO 03/31/2016

## 6. ACTION
Extension with/without Funds

## 7. CFDA#: 20.319

## 8. PROJECT TITLE
Knowledge Corridor Restore Vermonter Project

## 9. TOTAL OF PREVIOUS AGREEMENT AND ALL AMENDMENTS 72,800,000.00

## 10. AMOUNT OF THIS AGREEMENT OR AMENDMENT 0.00

## 11. TOTAL AGREEMENT AMOUNT 72,800,000.00

## 12. INCORPORATED ATTACHMENTS
THIS AGREEMENT INCLUDES THE FOLLOWING ATTACHMENTS, INCORPORATED HEREIN AND MADE A PART HEREOF:
Amended Terms and Conditions, Attachment 1

## 13. STATUTORY AUTHORITY FOR GRANT/COOPERATIVE AGREEMENT

## 14. REMARKS

## 15. NAME AND TITLE OF AUTHORIZED GRANTEE OFFICIAL
Mr. Tim Doherty

## 16. SIGNATURE OF AUTHORIZED GRANTEE OFFICIAL
Electronically Signed

## 16A. DATE 10/31/2013

## 17. NAME AND TITLE OF AUTHORZIED FRA OFFICIAL
Michelle Jacobson
Authorizing Official

## 18. SIGNATURE OF AUTHORIZED FRA OFFICIAL
Electronically Signed

## 18A. DATE 11/05/2013

## 19. OBJECT CLASS CODE: 41010

## 20. ORGANIZATION CODE: 9013000000

## 21. ACCOUNTING CLASSIFICATION CODES

<table>
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<th>DOCUMENT NUMBER</th>
<th>FUND</th>
<th>BY</th>
<th>BPAC</th>
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</table>
AWARD ATTACHMENTS

Transportation, Massachusetts Executive Office

1. Amended Terms and Conditions, Attachment 1
Attachment 1 to Amendment 1

The parties, intending to be legally bound, agree to amend their Agreement of July 1, 2011, as follows:

1. In the Notice of Grant Award cover sheet, sections 4 and 5, the end date of 10/31/2013 is hereby deleted and the end date of 03/31/2016, is substituted therefor.

2. Section 7 of Attachment 1 is deleted in its entirety, and the following is substituted therefor:

   7. Payment Method:

   Payment of FRA funding through FRA’s Office of Financial Services, shall be made on a reimbursable basis whereby the Grantee will be reimbursed, after the submission of proper invoices, for actual expenses incurred.

   The Grantee will use the Automated Clearing House (ACH) Electronic Vendor Payment method for transfer of reimbursed funds and submit either a SF-270 or SF-271 form. Requests for reimbursement must be made through the Department of Transportation’s Delphi eInvoicing System. Information on the Delphi eInvoicing System can be found at: http://www.dot.gov/cfo/delphi-e invoicing-system.html. To obtain access to the Delphi eInvoicing System, please contact your grant Administrative Officer or Grant Manager.

3. Section 10 of Attachment 1 is deleted in its entirety, and the following is substituted therefor:

   10. Quarterly Federal Financial Report:

   The Grantee shall submit the Federal Financial Report (SF-425) on a quarterly basis throughout the lifecycle of the grant. Reports are due 30 days from the close of the calendar quarter and should be submitted online through GrantSolutions. Reports should be submitted in accordance with the form’s instructions, requiring reporting of all transactions, including Federal cash, Federal expenditures and unobligated balance, recipient share, and program income. The final SF-425 is due within 90 days after the end of the award period, but may be submitted as soon as all outstanding expenditures have been completed.

4. Section 7 of Attachment 2 is deleted in its entirety, and the following is substituted therefor:
Attachment 1 to Amendment 1

7. Payments:

a. Request by the Grantee for Payment. The Grantee's request for payment of the Federal share of allowable costs shall be made to FRA via the Department of Transportation’s Delphi eInvoicing System, and will be acted upon by FRA as set forth in this section. Information on the Delphi eInvoicing System can be found in Section 7 of Attachment 1, Special Provisions. Each payment made to the Grantee must comply with Department of the Treasury regulations, "Rules and Procedures for Funds Transfers," 31 C.F.R. Part 205. To receive a Federal assistance payment, the Grantee must:

1) Have demonstrated or certified that it has made a binding commitment of non-Federal funds, if applicable, adequate when combined with Federal payments, to cover all costs to be incurred under the Project to date. A Grantee required by Federal statute or this Agreement to provide contributory matching funds or a cost share agrees:

a) to refrain from requesting or obtaining Federal funds in excess of the amount justified by the contributory matching funds or cost share that has been provided; and

b) to refrain from taking any action that would cause the proportion of Federal funds made available to the Project at any time to exceed the percentage authorized under this Agreement. The requirement for contributory matching funds or cost share may be temporarily waived only to the extent expressly provided in writing by FRA.

2) Have submitted to FRA all financial and progress reports required to date under this Agreement; and

3) Have identified the source(s) of financial assistance provided under this Project, if applicable, from which the payment is to be derived.

b. Payment by FRA.

1) Reimbursement Payment by FRA. FRA uses the reimbursement method, whereby the Grantee agrees to:

a. Complete and submit Standard Form 3881, "Payment Information Form - ACH Payment Vendor Payment System," to FRA; and

b. Complete and submit Standard Form 270, "Request for Advance or Reimbursement," to FRA.

2) Upon receipt of a payment request and adequate accompanying information (invoices in accordance with applicable cost principles), FRA will authorize payment by direct deposit, or if requested by the Grantee, by issuance of a treasury check (allow 30 day processing time for issuance of check), provided the Grantee: (i) is complying with its obligations under this Agreement, (ii) has satisfied FRA that it needs the requested
Attachment 1 to Amendment 1

Federal funds during the requisition period, and (iii) is making adequate and timely progress toward Project completion. If all these circumstances are present, FRA may reimburse allowable costs incurred by the Grantee up to the maximum amount of FRA's share of the total Project funding.

3) Other Payment Information.

a. The Grantee agrees to adhere to and impose on its subgrantees all applicable foregoing "Payment by FRA" requirements of this Agreement.

b. If the Grantee fails to adhere to the foregoing "Payment by FRA" requirements of this Agreement, FRA may revoke the portion of the Grantee's funds that has not been expended.

c. Allowable Costs. The Grantee's expenditures will be reimbursed only if they meet all requirements set forth below:

   1) Conform with the Project description, the Statement of Work, and the Approved Project Budget and all other terms of this Agreement;

   2) Be necessary in order to accomplish the Project;

   3) Be reasonable for the goods or services purchased;

   4) Be actual net costs to the Grantee (i.e., the price paid minus any refunds, rebates, or other items of value received by the Grantee that have the effect of reducing the cost actually incurred);

   5) Be incurred (and be for work performed) after the effective date of this Agreement, unless specific authorization from FRA to the contrary is received in writing;

   6) Unless permitted otherwise by Federal status or regulation, conform with Federal guidelines or regulations and Federal cost principles as set forth below:

      a. For Grantees that are governmental organizations, the standards of OMB Circular A-87, Revised, "Cost Principles for State and Local Governments" apply;

      b. For Grantees that are institutions of higher education, the standards of OMB Circular A-21, Revised, "Cost Principles for Educational Institutions" apply;

      c. For Grantees that are private nonprofit organizations, the standards of OMB Circular A-122, Revised, "Cost Principles for Nonprofit Organizations" apply; and

      d. For Grantees that are for-profit organizations, the standards of the Federal Acquisition Regulation, 48 C.F.R. Chapter I, Subpart 31.2, "Contracts with Commercial Organizations" apply.
Attachment 1 to Amendment 1

7) Be satisfactorily documented; and

8) Be treated uniformly and consistently under accounting principles and procedures approved and prescribed by FRA for the Grantee, and those approved or prescribed by the Grantee for its subgrantees and contractors.

d. Disallowed Costs. In determining the amount of Federal assistance FRA will provide, FRA will exclude:

1) Any Project costs incurred by the Grantee before the obligation date of this Agreement, or amendment or modification thereof, whichever is later, unless specifically allowed by this Agreement, otherwise permitted by Federal law or regulation, or unless an authorized representative of FRA states in writing to the contrary;

2) Any costs incurred by the Grantee that are not included in the latest Approved Project Budget; and

3) Any costs attributable to goods or services received under a contract or other arrangement that is required to be, but has not been, concurred in or approved in writing by FRA.

The Grantee agrees that reimbursement of any cost under the "Payment by FRA," part of this Agreement does not constitute a final FRA decision about the allowability of that cost and does not constitute a waiver of any violation by the Grantee of the terms of this Agreement. The Grantee understands that FRA will not make a final determination about the allowability of any cost until an audit of the Project has been completed. If FRA determines that the Grantee is not entitled to receive any part of the Federal funds requested, FRA will notify the Grantee stating the reasons therefore. Project closeout will not alter the Grantee's obligation to return any funds due to FRA as a result of later refunds, corrections, or other transactions. Nor will Project closeout alter FRA's right to disallow costs and recover funds on the basis of a later audit or other review. Unless prohibited by law, FRA may offset any Federal assistance funds to be made available under this Project as needed to satisfy any outstanding monetary claims that the Federal Government may have against the Grantee. Exceptions pertaining to disallowed costs will be assessed based on their applicability, as set forth in the applicable Federal cost principals or other written Federal guidance.

e. Bond Interest and Other Financing Costs. To the extent permitted in writing by FRA, bond interest and other financing costs are allowable.

f. Requirement to Remit Interest. The Grantee agrees that:

1) Any interest earned by the Grantee on FRA funds must be remitted to FRA, except as provided by 31 U.S.C. § 6503, or the Indian Self-Determination Act, 25 U.S.C. § 450 et seq., and any regulations thereunder that may be issued by the U.S. Secretary of the Treasury.
2) Irrespective of whether the Grantee has deposited funds in an interest-bearing account, the Grantee agrees to pay to FRA interest on any FRA funds that the Grantee has drawn down and failed to spend for eligible Project activities. Unless waived by FRA, interest will be calculated at rates imposed by the U.S. Secretary of the Treasury beginning on the fourth day after the funds were deposited in the Grantee's bank or other financial depository. This requirement does not apply to any Grantee that is a state, state instrumentality, or Indian Tribal Government, except as permitted under applicable state law and by regulations that may be issued by the U.S. Secretary of the Treasury.

3) Upon notice by FRA to the Grantee of specific amounts due, the Grantee agrees to promptly remit to FRA any excess payment of amounts or disallowed costs, including any interest due thereon.

g. De-obligation of Funds. FRA reserves the right to de-obligate unspent FRA funds prior to Project closeout.

5. Section IV. Project Schedule of Attachment 3, Statement of Work, is deleted in its entirety, and the following is substituted therefor:

IV. PROJECT SCHEDULE

The period of performance for the above work shall begin July 8, 2011 and end March 31, 2016. A detailed schedule is on file with the FRA. Modifications to the schedule must be approved in writing by FRA before taking effect.

6. Except as specifically amended hereunder, all terms, conditions, and attachments in the original Agreement, as amended, will remain in full force and effect.