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THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION



Victoria F. Sheehan
Commissioner

William Cass, P.E.
Assistant Commissioner

His Excellency, Governor Christopher T. Sununu
and the Honorable Council
State House
Concord, New Hampshire 03301

Bureau of Materials & Research
December 5, 2018

REQUESTED ACTION

Authorize the Department of Transportation to enter into an Agreement with the City of Dover (Vendor #177380), for a total fee not to exceed \$519,600.00. Funding is provided by the Federal Accelerated Innovation Deployment (AID) Demonstration Program through project AID Demonstration Grant for City of Dover: Creating a Benchmark for Traffic Signal Performance (NHDOT 42366), effective upon Governor and Council approval through January 31, 2021. 100% Federal Funds.

Funding to support this request are anticipated to be available in the following account in State FY 2019:

04-96-96-963515-3054	<u>FY 2019</u>
Consolidated Federal	
046-500464 General Consultants Non-Benefit	\$519,600.00

As this is a pass through grant to the City of Dover, we will obligate all the funds in FY 2019.

EXPLANATION

The purpose of the AID Demonstration Program is to provide funding to state transportation agencies or other public sectors as an incentive to accelerate the implementation and adoption of innovation in highway transportation.

This project includes the deployment of a number of proven innovative technologies to better manage the City of Dover, NH's traffic signals. The City has been making incremental improvements to their traffic signal infrastructure over the past eight (8) years. This project will complement their past efforts by increasing the number of intersections included in their central signal system from 14 to 25. Additionally, it will implement a number of new technologies for generating Automated Traffic Signal Performance Measures (ATSPMs) that can aid engineers in keeping the overall system optimized for improved highway efficiency, safety, and mobility. FHWA's Every Day Counts (EDC) Round 4 Initiative – Automated Traffic Signal Performance Measures is the main focus of this initiative. The Department is a cooperative partner in this project because of their interest in expanding their statewide Traffic Management Center's (TMC) capabilities by integrating local central signal systems for increased regional responsiveness.

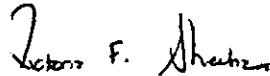
AID Demonstration funds provide a Federal share of 80 percent. The 20 percent non-Federal match may come from project sponsors or other allowable funding sources. For reference, the following table shows the funding allocations:

Agency	Federal AID Funds	City of Dover Funds	Project Total
Cost	\$519,600 (80%)	\$129,900 (20%)	\$649,500

Authorization is requested to allow the Department to enter into this agreement with the sub-recipient to ensure compliance with Federal Aid requirements and to permit State personnel to supervise the project and the Department to expend Federal Funds.

This Agreement has been approved by the Attorney General as to form and execution and the Department has verified that the necessary funds are available. Copies of the fully-executed Agreements are on file at the Secretary of State's Office and the Department of Administrative Services, and subsequent to Governor and Council approval will be on file at the Department of Transportation. It is respectfully requested that authority be given to enter into a sole-source Agreement for consulting services as outlined above.

Sincerely,



Victoria F. Sheehan
Commissioner

Attachments

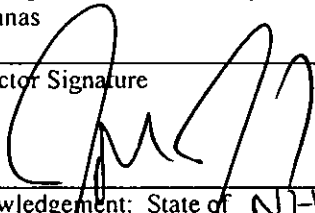
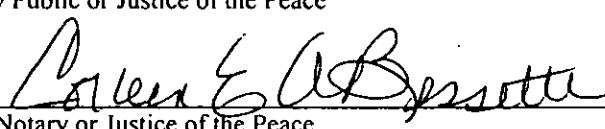
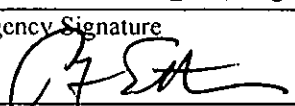
Notice: This agreement and all of its attachments shall become public upon submission to Governor and Executive Council for approval. Any information that is private, confidential or proprietary must be clearly identified to the agency and agreed to in writing prior to signing the contract.

AGREEMENT

The State of New Hampshire and the Contractor hereby mutually agree as follows:

GENERAL PROVISIONS

1. IDENTIFICATION.

1.1 State Agency Name New Hampshire Department of Transportation		1.2 State Agency Address 7 Hazen Drive Concord, NH 03302	
1.3 Contractor Name City of Dover		1.4 Contractor Address 288 Central Avenue Dover, NH 03820	
1.5 Contractor Phone Number 603-516-6030	1.6 Account Number 04-96-96-962015-3054-046	1.7 Completion Date January 31, 2021	1.8 Price Limitation \$519,600.00
1.9 Contracting Officer for State Agency Peter E. Stamnas		1.10 State Agency Telephone Number 603-271-1486	
1.11 Contractor Signature 		1.12 Name and Title of Contractor Signatory J. Michael Joyal, Jr. City Manager	
1.13 Acknowledgement: State of <u>NH</u> , County of <u>Stafford</u> On <u>11/28/18</u> , before the undersigned officer, personally appeared the person identified in block 1.12, or satisfactorily proven to be the person whose name is signed in block 1.11, and acknowledged that s/he executed this document in the capacity indicated in block 1.12.			
1.13.1 Signature of Notary Public or Justice of the Peace [Seal] 		COLLEEN E. A. BESSETTE, Notary Public My Commission Expires August 8, 2023	
1.13.2 Name and Title of Notary or Justice of the Peace <u>Colleen E. A. Besette, Executive Assistant</u>			
1.14 State Agency Signature  Date: <u>12/6/18</u>		1.15 Name and Title of State Agency Signatory <u>Peter E. Stamnas</u> Director of Project Development	
1.16 Approval by the N.H. Department of Administration, Division of Personnel (if applicable) By: _____ Director, On: _____			
1.17 Approval by the Attorney General (Form, Substance and Execution) (if applicable) By: <u>Allan B. Greenstein</u> On: <u>1/22/19</u>			
1.18 Approval by the Governor and Executive Council (if applicable) By: _____ On: _____			

2. EMPLOYMENT OF CONTRACTOR/SERVICES TO BE PERFORMED. The State of New Hampshire, acting through the agency identified in block 1.1 ("State"), engages contractor identified in block 1.3 ("Contractor") to perform, and the Contractor shall perform, the work or sale of goods, or both, identified and more particularly described in the attached EXHIBIT A which is incorporated herein by reference ("Services").

3. EFFECTIVE DATE/COMPLETION OF SERVICES.

3.1 Notwithstanding any provision of this Agreement to the contrary, and subject to the approval of the Governor and Executive Council of the State of New Hampshire, if applicable, this Agreement, and all obligations of the parties hereunder, shall become effective on the date the Governor and Executive Council approve this Agreement as indicated in block 1.18, unless no such approval is required, in which case the Agreement shall become effective on the date the Agreement is signed by the State Agency as shown in block 1.14 ("Effective Date").

3.2 If the Contractor commences the Services prior to the Effective Date, all Services performed by the Contractor prior to the Effective Date shall be performed at the sole risk of the Contractor, and in the event that this Agreement does not become effective, the State shall have no liability to the Contractor, including without limitation, any obligation to pay the Contractor for any costs incurred or Services performed. Contractor must complete all Services by the Completion Date specified in block 1.7.

4. CONDITIONAL NATURE OF AGREEMENT.

Notwithstanding any provision of this Agreement to the contrary, all obligations of the State hereunder, including, without limitation, the continuance of payments hereunder, are contingent upon the availability and continued appropriation of funds, and in no event shall the State be liable for any payments hereunder in excess of such available appropriated funds. In the event of a reduction or termination of appropriated funds, the State shall have the right to withhold payment until such funds become available, if ever, and shall have the right to terminate this Agreement immediately upon giving the Contractor notice of such termination. The State shall not be required to transfer funds from any other account to the Account identified in block 1.6 in the event funds in that Account are reduced or unavailable.

5. CONTRACT PRICE/PRICE LIMITATION/PAYMENT.

5.1 The contract price, method of payment, and terms of payment are identified and more particularly described in EXHIBIT B which is incorporated herein by reference.

5.2 The payment by the State of the contract price shall be the only and the complete reimbursement to the Contractor for all expenses, of whatever nature incurred by the Contractor in the performance hereof, and shall be the only and the complete compensation to the Contractor for the Services. The State shall have no liability to the Contractor other than the contract

5.3 The State reserves the right to offset from any amounts otherwise payable to the Contractor under this Agreement those liquidated amounts required or permitted by N.H. RSA 80:7 through RSA 80:7-c or any other provision of law.

5.4 Notwithstanding any provision in this Agreement to the contrary, and notwithstanding unexpected circumstances, in no event shall the total of all payments authorized, or actually made hereunder, exceed the Price Limitation set forth in block 1.8.

6. COMPLIANCE BY CONTRACTOR WITH LAWS AND REGULATIONS/ EQUAL EMPLOYMENT OPPORTUNITY.

6.1 In connection with the performance of the Services, the Contractor shall comply with all statutes, laws, regulations, and orders of federal, state, county or municipal authorities which impose any obligation or duty upon the Contractor, including, but not limited to, civil rights and equal opportunity laws. This may include the requirement to utilize auxiliary aids and services to ensure that persons with communication disabilities, including vision, hearing and speech, can communicate with, receive information from, and convey information to the Contractor. In addition, the Contractor shall comply with all applicable copyright laws.

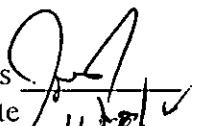
6.2 During the term of this Agreement, the Contractor shall not discriminate against employees or applicants for employment because of race, color, religion, creed, age, sex, handicap, sexual orientation, or national origin and will take affirmative action to prevent such discrimination.

6.3 If this Agreement is funded in any part by monies of the United States, the Contractor shall comply with all the provisions of Executive Order No. 11246 ("Equal Employment Opportunity"), as supplemented by the regulations of the United States Department of Labor (41 C.F.R. Part 60), and with any rules, regulations and guidelines as the State of New Hampshire or the United States issue to implement these regulations. The Contractor further agrees to permit the State or United States access to any of the Contractor's books, records and accounts for the purpose of ascertaining compliance with all rules, regulations and orders, and the covenants, terms and conditions of this Agreement.

7. PERSONNEL.

7.1 The Contractor shall at its own expense provide all personnel necessary to perform the Services. The Contractor warrants that all personnel engaged in the Services shall be qualified to perform the Services, and shall be properly licensed and otherwise authorized to do so under all applicable laws.

7.2 Unless otherwise authorized in writing, during the term of this Agreement, and for a period of six (6) months after the Completion Date in block 1.7, the Contractor shall not hire, and shall not permit any subcontractor or other person, firm or corporation with whom it is engaged in a combined effort to perform the Services to hire, any person who is a State employee or official, who is materially involved in the procurement, administration or performance of this

The signature is written in black ink and appears to be 'J. A.'. Below the signature, the date '11/21/10' is handwritten.

Agreement. This provision shall survive termination of this Agreement.

7.3 The Contracting Officer specified in block 1.9, or his or her successor, shall be the State's representative. In the event of any dispute concerning the interpretation of this Agreement, the Contracting Officer's decision shall be final for the State.

8. EVENT OF DEFAULT/REMEDIES.

8.1 Any one or more of the following acts or omissions of the Contractor shall constitute an event of default hereunder ("Event of Default"):

8.1.1 failure to perform the Services satisfactorily or on schedule;

8.1.2 failure to submit any report required hereunder; and/or

8.1.3 failure to perform any other covenant, term or condition of this Agreement.

8.2 Upon the occurrence of any Event of Default, the State may take any one, or more, or all, of the following actions:

8.2.1 give the Contractor a written notice specifying the Event of Default and requiring it to be remedied within, in the absence of a greater or lesser specification of time, thirty (30) days from the date of the notice; and if the Event of Default is not timely remedied, terminate this Agreement, effective two (2) days after giving the Contractor notice of termination;

8.2.2 give the Contractor a written notice specifying the Event of Default and, suspending all payments to be made under this Agreement and ordering that the portion of the contract price which would otherwise accrue to the Contractor during the period from the date of such notice until such time as the State determines that the Contractor has cured the Event of Default shall never be paid to the Contractor;

8.2.3 set off against any other obligations the State may owe to the Contractor any damages the State suffers by reason of any Event of Default; and/or

8.2.4 treat the Agreement as breached and pursue any of its remedies at law or in equity, or both.

9. DATA/ACCESS/CONFIDENTIALITY/PRESERVATION.

9.1 As used in this Agreement, the word "data" shall mean all information and things developed or obtained during the performance of, or acquired or developed by reason of, this Agreement, including, but not limited to, all studies, reports, files, formulae, surveys, maps, charts, sound recordings, video recordings, pictorial reproductions, drawings, analyses, graphic representations, computer programs, computer printouts, notes, letters, memoranda, papers, and documents, all whether finished or unfinished.

9.2 All data and any property which has been received from the State or purchased with funds provided for that purpose under this Agreement, shall be the property of the State, and shall be returned to the State upon demand or upon termination of this Agreement for any reason.

9.3 Confidentiality of data shall be governed by N.H. RSA chapter 91-A or other existing law. Disclosure of data requires prior written approval of the State.

10. **TERMINATION.** In the event of an early termination of this Agreement for any reason other than the completion of the Services, the Contractor shall deliver to the Contracting Officer, not later than fifteen (15) days after the date of termination, a report ("Termination Report") describing in detail all Services performed, and the contract price earned, to and including the date of termination. The form, subject matter, content, and number of copies of the Termination Report shall be identical to those of any Final Report described in the attached EXHIBIT A.

11. **CONTRACTOR'S RELATION TO THE STATE.** In the performance of this Agreement the Contractor is in all respects an independent contractor, and is neither an agent nor an employee of the State. Neither the Contractor nor any of its officers, employees, agents or members shall have authority to bind the State or receive any benefits, workers' compensation or other emoluments provided by the State to its employees.

12. **ASSIGNMENT/DELEGATION/SUBCONTRACTS.** The Contractor shall not assign, or otherwise transfer any interest in this Agreement without the prior written notice and consent of the State. None of the Services shall be subcontracted by the Contractor without the prior written notice and consent of the State.

13. **INDEMNIFICATION.** The Contractor shall defend, indemnify and hold harmless the State, its officers and employees, from and against any and all losses suffered by the State, its officers and employees, and any and all claims, liabilities or penalties asserted against the State, its officers and employees, by or on behalf of any person, on account of, based or resulting from, arising out of (or which may be claimed to arise out of) the acts or omissions of the Contractor. ~~Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the sovereign immunity of the State, which immunity is hereby reserved to the State.~~ This covenant in paragraph 13 shall survive the termination of this Agreement.

14. INSURANCE.

14.1 The Contractor shall, at its sole expense, obtain and maintain in force, and shall require any subcontractor or assignee to obtain and maintain in force, the following insurance:

14.1.1 comprehensive general liability insurance against all claims of bodily injury, death or property damage, in amounts of not less than \$1,000,000 per occurrence and \$2,000,000 aggregate; and

14.1.2 special cause of loss coverage form covering all property subject to subparagraph 9.2 herein, in an amount not less than 80% of the whole replacement value of the property.

14.2 The policies described in subparagraph 14.1 herein shall be on policy forms and endorsements approved for use in the State of New Hampshire by the N.H. Department of Insurance, and issued by insurers licensed in the State of New Hampshire.

14.3 The Contractor shall furnish to the Contracting Officer identified in block 1.9, or his or her successor, a certificate(s) of insurance for all insurance required under this Agreement. Contractor shall also furnish to the Contracting Officer identified in block 1.9, or his or her successor, certificate(s) of insurance for all renewal(s) of insurance required under this Agreement no later than thirty (30) days prior to the expiration date of each of the insurance policies. The certificate(s) of insurance and any renewals thereof shall be attached and are incorporated herein by reference. Each certificate(s) of insurance shall contain a clause requiring the insurer to provide the Contracting Officer identified in block 1.9, or his or her successor, no less than thirty (30) days prior written notice of cancellation or modification of the policy.

15. WORKERS' COMPENSATION.

15.1 By signing this agreement, the Contractor agrees, certifies and warrants that the Contractor is in compliance with or exempt from, the requirements of N.H. RSA chapter 281-A ("*Workers' Compensation*").

15.2 To the extent the Contractor is subject to the requirements of N.H. RSA chapter 281-A, Contractor shall maintain, and require any subcontractor or assignee to secure and maintain, payment of Workers' Compensation in connection with activities which the person proposes to undertake pursuant to this Agreement. Contractor shall furnish the Contracting Officer identified in block 1.9, or his or her successor, proof of Workers' Compensation in the manner described in N.H. RSA chapter 281-A and any applicable renewal(s) thereof, which shall be attached and are incorporated herein by reference. The State shall not be responsible for payment of any Workers' Compensation premiums or for any other claim or benefit for Contractor, or any subcontractor or employee of Contractor, which might arise under applicable State of New Hampshire Workers' Compensation laws in connection with the performance of the Services under this Agreement.

16. WAIVER OF BREACH. No failure by the State to enforce any provisions hereof after any Event of Default shall be deemed a waiver of its rights with regard to that Event of Default, or any subsequent Event of Default. No express failure to enforce any Event of Default shall be deemed a waiver of the right of the State to enforce each and all of the provisions hereof upon any further or other Event of Default on the part of the Contractor.

17. NOTICE. Any notice by a party hereto to the other party shall be deemed to have been duly delivered or given at the time of mailing by certified mail, postage prepaid, in a United States Post Office addressed to the parties at the addresses given in blocks 1.2 and 1.4, herein.

18. AMENDMENT. This Agreement may be amended, waived or discharged only by an instrument in writing signed by the parties hereto and only after approval of such amendment, waiver or discharge by the Governor and Executive Council of the State of New Hampshire unless no

such approval is required under the circumstances pursuant to State law, rule or policy.

19. CONSTRUCTION OF AGREEMENT AND TERMS.

This Agreement shall be construed in accordance with the laws of the State of New Hampshire, and is binding upon and inures to the benefit of the parties and their respective successors and assigns. The wording used in this Agreement is the wording chosen by the parties to express their mutual intent, and no rule of construction shall be applied against or in favor of any party.

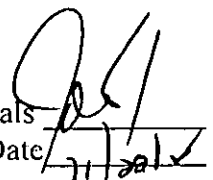
20. THIRD PARTIES. The parties hereto do not intend to benefit any third parties and this Agreement shall not be construed to confer any such benefit.

21. HEADINGS. The headings throughout the Agreement are for reference purposes only, and the words contained therein shall in no way be held to explain, modify, amplify or aid in the interpretation, construction or meaning of the provisions of this Agreement.

22. SPECIAL PROVISIONS. Additional provisions set forth in the attached EXHIBIT C are incorporated herein by reference.

23. SEVERABILITY. In the event any of the provisions of this Agreement are held by a court of competent jurisdiction to be contrary to any state or federal law, the remaining provisions of this Agreement will remain in full force and effect.

24. ENTIRE AGREEMENT. This Agreement, which may be executed in a number of counterparts, each of which shall be deemed an original, constitutes the entire Agreement and understanding between the parties, and supersedes all prior Agreements and understandings relating hereto.

Handwritten signature and date: 7/1/2012

Accelerated Innovation Deployment (AID) Demonstration Project

Scope of Work

The 14 intersections we are focused on are contained in 4 separate “systems” shown on Figure 1 attached. These include:

- The Weeks Crossing System
- The Hannaford/Glenwood System
- The Silver Street System
- The Durham Road System

Each of these “systems” has its own distinct character and operation goals (See Figure 2), which we think makes Dover an ideal “test bed” for this AID grant. In one grant we are proposing to implement and test a number of different ATSPMs under different situations. More specifically,

The Weeks Crossing System is adjacent to Exit 9 on the Spaulding Turnpike and serves both “commuting traffic” in the peak weekday periods as well as the retail shoppers to the area from both Dover and nearby Somersworth. Currently this system runs dual cross-coordination with fixed TOD plans during weekday and weekend peak periods. All four intersections have TS-2 cabinets with McCain ATC controllers, and communications back to central. The system has a single Gridsmart camera installation at the Central/Indian Brook intersection but loop detection at the other three locations.

Operational Goals: Accommodate heavy volumes throughout the day on all 4 legs with minimal delays. How best do we optimize this 4-signal system to achieve maximum throughput with minimal approach delays and queuing.

Appropriate ATSPMs for this system: Arrivals on Green, Traffic Volumes, Headways, Travel Times, V/C Ratios, Cycle Failures, and Red Light Running

The Hannaford/Glenwood System is a traditional linear arterial corridor on Central Avenue that is subject to volume peaks from “commuter traffic” predominantly. This system currently runs mainline coordination with fixed TOD plans during weekday and weekend peak periods. All three intersections have TS-2 cabinets with McCain ATC controllers and communications back to central. Detection is presently being provided by stop bar loop detection – no cameras.

Operational Goals: Maintaining progression on the mainline (Central Avenue). Accommodating side street volumes with manageable delays is also desired.

Appropriate ATSPMs for this system: Travel Times, Arrival on Green, Traffic Volumes, Split Utilization, and Transitions

The Silver Street System is an arterial feeder route into the City’s CBD from Exit 8 on the Spaulding Turnpike. Volumes on Silver Street disperse as they progress from west to east toward the downtown. The system currently is running free. All three intersections have TS-2 cabinets with McCain ATC controllers, Gridsmart detection, and communications back to central.

Operational Goals: Managing side street delays is more important than mainline progression in this system.

Appropriate ATSPMs for this system: Traffic Volumes, Split Utilization, Traffic Composition, Cycle Failures, and Red Light Running

The Durham Road System is an arterial servicing Exit 7 on the Spaulding Turnpike as well as the City's High and Middle schools. Volumes are heaviest during school start and end times as well as normal commuter times. Currently, this system is running fixed TOD plans designed around these peak periods. These four intersections run off two McCain ATC controllers housed in TS-2 cabinets. Detection at two of the intersections is provided by Gridsmart cameras. In-pavement loops support the other two intersections.

Operational Goals: Maximizing throughput on the mainline during peak periods while managing side street delays. The complexity of this system is magnified by the fact that 4 closely spaced intersections are operated by 2 controllers.

Appropriate ATSPMs for this system: Arrival on Green, Traffic Volumes, Travel Times, Headways, V/C Ratios, Traffic Composition, Pedestrian Actuations, Pre-emption events, Transitions, Cycle Failures, and Red Light Running

As you can see from the above descriptions, each system is different in its operational characteristics even though they all are located in key locations surrounding the City's downtown.

Schedule

Conduct Systems Engineering evaluation in advance of procurement	by the end of March 2019
Procure and install all new equipment, including advanced detection for Hannaford system	by end of 2nd Quarter of 2019
Engineering design, programming and deployment of ATSPM's for Hannaford system	by end of 3rd Quarter of 2019
Testing and Reporting for Hannaford system	by end of 4 th Quarter of 2019
Procure and install advanced detection for other three coordinated systems	by the end of 1 st Quarter of 2020
Engineering design, programming and deployment of ATSPM's for other threes systems	by the end of 2 nd Quarter of 2020
Testing and Final Reporting	by the end of 3 rd Quarter of 2020

Attachments:

Figure 1 – Coordinated Signal Systems

Figure 2 – Individual Corridor Characteristics

Accelerated Innovation Deployment (AID) Demonstration Project
Cost Breakdown

The proposed project will include the following elements:

1. Purchase and install video detection at the following intersections for vehicle counting, vehicle detection, real time remote monitoring and incident management:

Central Avenue at Hotel Drive
Central Avenue at Webb Place
Central Avenue at Morin Street
Central Avenue at Glenwood
Central Avenue at Hannaford's
Central Avenue at Locust Street (2 camera install)
Indian Brook at Webb Place

Total = 7 intersections at an estimated cost of \$210,000

2. Upgrade and install new backbone communications:

Central Avenue at Webb Place (Weeks Crossing System) – 1 23-GHz radio
Central Avenue at Morin Street (Hannaford/Glenwood System) – 1 23-GHz radio
Silver Street at Locust Street (Silver Street System) – 1 23-GHz radio
Locust to Exit 7 Monopole (Durham Road System) – 1 23-GHz radio

Total = 4 radio links at an estimated cost of \$30,000

3. Purchase and install cameras for advanced system detection to allow for ATSPM's implementation:

Phase 1 Total = 6 at an estimated cost of \$30,000

Phase 2 Total = 6 at an estimated cost of \$30,000

4. Purchase and install 8 stationary Bluetooth devices for continuous travel time recording in 3 coordinated signal systems.

Total = 8 x \$7,000 = and estimated cost of \$56,000

5. Upgrade, or purchase new open source software to include the ATSPM's at an estimated cost of \$10,000.

6. Create communications linkage and access privileges to City's central system for NHDOT's TMC – estimated cost \$15,000.

7. Engineering to design, procure, and implement new technologies and create monitoring databases for tracking new data and SPM's. Design and implement new programming for all 4 coordinated systems. Provide Interim and Final Reporting to FHWA for Phase 1 ATSPM implementation, and if successful for Phase 2. Estimated Cost:

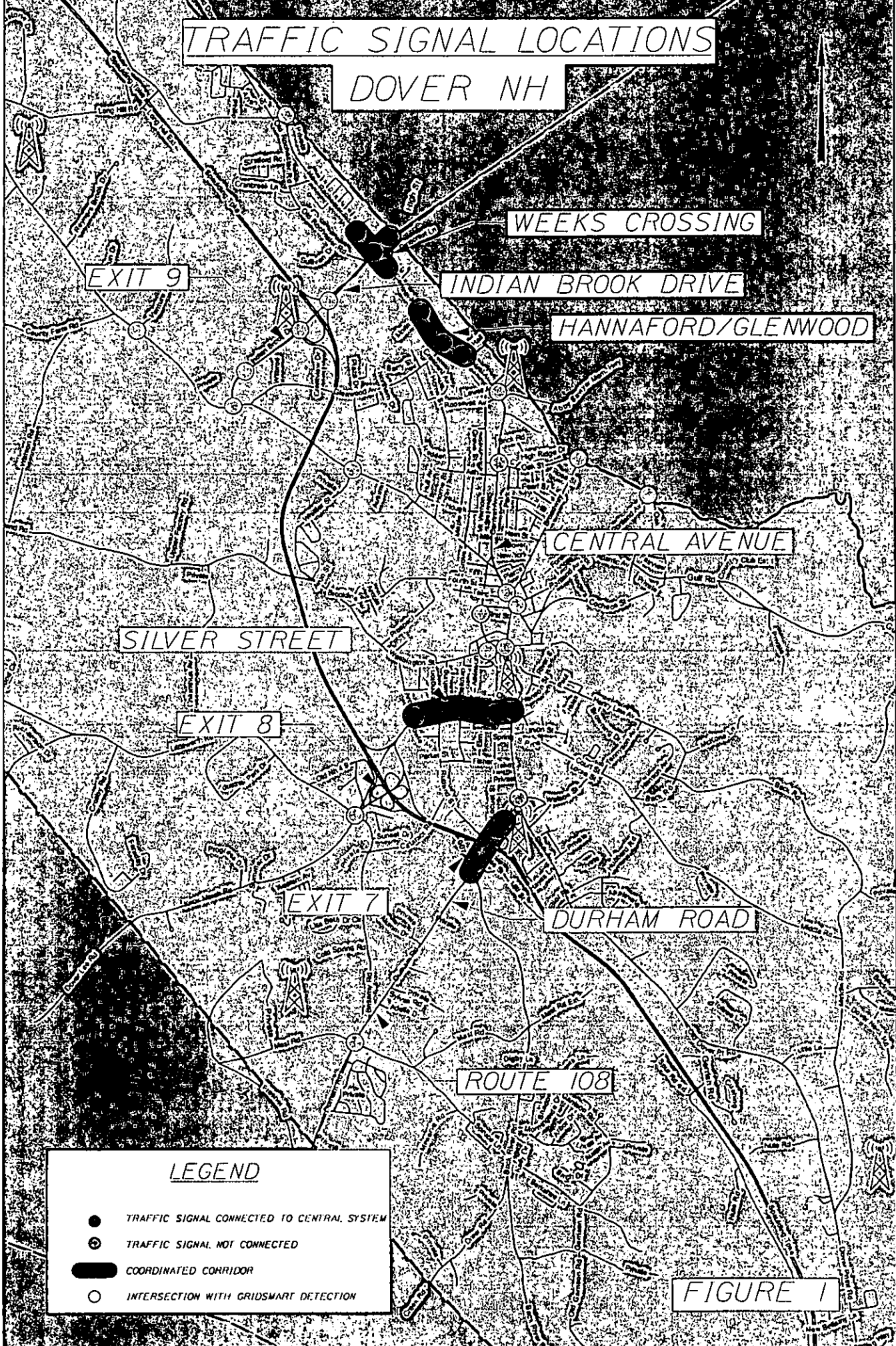
Project Management	\$ 15,000
Systems Engineering	\$ 5,000
Equipment Procurement, Testing and Acceptance	\$ 16,000
Data Assemblage and Database Development	
4 systems	\$ 32,000
ATSPM selection and set up – Phase 1	\$ 25,000
TOD Development and Implementation (4 systems)	\$ 28,000
Peer to Peer Design/Implementation – Phase 1	\$ 25,000
Interim and Final Reporting – Phase 1	\$ 10,000
Equipment Procurement – Phase 2	
Balance of advanced detection	\$ 5,000
ATSPM selection and set up – Phase 2	
3 systems	\$ 30,000
Peer to Peer Design/Implementation Phase 2	
3 systems	\$ 45,000
Interim and Final Reporting – Phase 2	\$ 7,500
Post Project Information Exchange	<u>\$ 5,000</u>
Total	\$248,500

8. NHDOT participation, support, and administration = \$20,000

9. Total Project Cost Phases 1 and 2 = \$649,500

TRAFFIC SIGNAL LOCATIONS

DOVER NH



WEEKS CROSSING

EXIT 9

INDIAN BROOK DRIVE

HANNAFORD/GLENWOOD

CENTRAL AVENUE

SILVER STREET

EXIT 8

EXIT 7

DURHAM ROAD

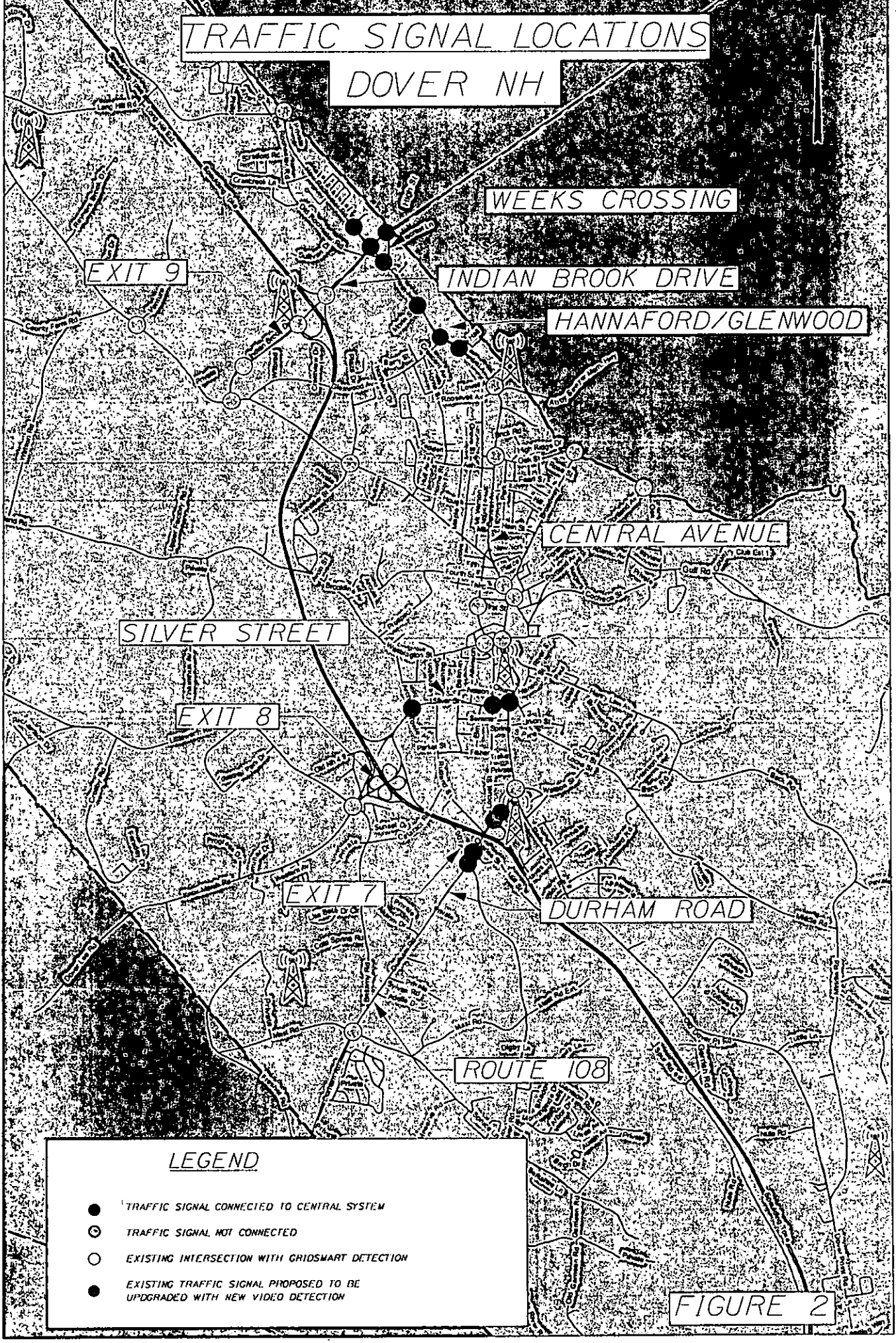
ROUTE 108

LEGEND

- TRAFFIC SIGNAL CONNECTED TO CENTRAL SYSTEM
- ⊕ TRAFFIC SIGNAL NOT CONNECTED
- ▬ COORDINATED CORRIDOR
- INTERSECTION WITH GRIDSMART DETECTION

FIGURE 1

TRAFFIC SIGNAL LOCATIONS DOVER NH



LEGEND

- TRAFFIC SIGNAL CONNECTED TO CENTRAL SYSTEM
- TRAFFIC SIGNAL NOT CONNECTED
- EXISTING INTERSECTION WITH GRIDSMART DETECTION
- EXISTING TRAFFIC SIGNAL PROPOSED TO BE UPGRADED WITH NEW VIDEO DETECTION

FIGURE 2

**EXHIBIT C
SPECIAL PROVISIONS
FOR**

CITY OF DOVER

STATE VENDOR #: 177380

STATE PROJECT #: 42366

FEDERAL PROJECT #: A004(825)

This contract shall be administered in general accordance with the general provisions of the Agreement found in Form P-37 as modified by the following terms.

C.1. Amend P-37 Section 5. CONTRACT PRICE/PRICE LIMITATION PAYMENT by adding the following:

5.5 The contractor shall submit quarterly progress reports and invoices to the State for reimbursement of its share of the amounts paid to engineering and research consultants for the performance of the work set forth in the Agreement. The invoice structure shall include details of work completed consistent with the Scope of Work as defined in the Agreement, as well as backup information to support the charges. The Contractor shall certify that the invoices properly represent payment for work that has been completed and paid for by the Contractor.

5.6. The Contractor is required to maintain all project and financial records pertinent to the development of the Project for three (3) years beyond the date of the State's final voucher. The State will send a letter to the Contractor with the date of this approval. If there is a failure to maintain this documentation, State and/or Federal Highway Administration could take an action up to and including requesting a refund of all reimbursed project costs.

5.7. That this Agreement is contingent upon the appropriation of sufficient funds from the State of New Hampshire Legislature and/or the Federal Highway Administration. If sufficient funds are not appropriated, the Department may terminate this Agreement upon thirty (30) days' written notice to the Contractor. Such termination shall relieve the Department and the Contractor from obligations under this Agreement after the termination date.

C.2. Amend P-37 Section 6. COMPLIANCE BY CONTRACTOR WITH LAWS AND REGULATIONS/EQUAL EMPLOYMENT OPPORTUNITY by the following:

Add the following sentence to 6.1:

In connection with the performance of the Services, the Contractor shall comply with all Federal and State of New Hampshire laws and rules, regulations, and policies as applicable under the Federal-aid Highway Program.

Substitute 6.2 with following paragraph:

The Contractor agrees that it will comply with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C. 2000d—2000d-4 (referred to as the ACT), and all requirements imposed by or pursuant to Title 49, Code of Federal Regulations, US State of Transportation, Subtitle A, Office of the Secretary, Part 21, "Non-discrimination in Federally-Assisted Programs of The State of Transportation – Effectuation of Title VI of the Civil Rights Act of 1964" (referred to as the "REGULATIONS"), the Federal-aid Highway Act of 1973, and other pertinent directives, to the end that no person shall on the grounds of race, color, national origin, sex, age, or disability, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity for which the Contractor receives Federal financial assistance extended by the State of New Hampshire. This Agreement obligates the Contractor for the period during which Federal financial assistance is extended.

C.3. Amend P-37 Section 14. INSURANCE by adding the following:

14.4. The Contractor shall defend, indemnify and hold harmless the State and its officials, agents and employees from and against any and all claims, liabilities or suits arising from (or which may be claimed to arise from) any act or omission of the Contractor or its subcontractors in the performance of this Agreement. Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the sovereign immunity of the State of New Hampshire which immunity is hereby reserved. This covenant shall survive the termination of this Agreement.

To: Yamilee Volcy, Engineering & Operations Supervisor, FHWA – NH Division

From: Ann Scholz, Research Engineer – NHDOT

Date: November 15, 2018

RE: Match Plan for City of Dover, NH: Creating a Benchmark for Traffic Signal Performance
State Project 42366 Federal Project X-A004(825)

This memorandum is intended to provide sufficient documentation to the FHWA-NH Division on the proposed non-federal match for the City of Dover, NH: Creating a Benchmark for Traffic Signal Performance Project. NHDOT intends to partner with the City of Dover and its traffic consultant Sebago Technics, to administer these funds in a responsible manner. Sebago will provide the technical engineering, oversight, testing and reporting associated with this Project under the direction of NHDOT's Traffic Bureau and Dover's Community Services Department.

Calculating Value of Soft Match

The City is committed to a 20-percent match as required for this AID demonstration grant. A letter confirming this fact and identify the non-federal monies is available.

Reporting

At least every three months, the City will report their time and the value of their match. The document will accompany the City's invoicing for payment against the AID funds. The document format will be similar to their standard invoice noting description of expenses, current period, and cumulative amount.

The NHDOT project manager will maintain a reporting spreadsheet to track accrual against overall need. The report will be maintained consistent to receipt of invoices from the City. In the event that the match accrual is lagging behind plan expectations, NHDOT will take the following actions:

- Meet with the City of Dover to discuss reasons for uneven accrual
- Develop a revised plan that demonstrates ability to accrue appropriate match to allow expenditure of federal funds
- Discuss performance with FHWA for corrective actions as necessary

**City of Dover, NH: Creating a Benchmark for Traffic Signal Performance
Match Plan**

Sponsor Name: New Hampshire Department of Transportation

Partners: City of Dover, NH and Sebago Technics, Inc.

Project Name: City of Dover, NH: Creating a Benchmark for Traffic Signal Performance

State Project #: 42366 **Federal Project#:** X-A004(825)

Total Project Funding: \$649,500
\$519,600 AID Demonstration grant
\$129,900 City's Match (non-federal budget item)

Total Federal Share: \$519,600 (80%)
\$519,600 AID Demonstration grant

Total Match: \$129,900 (20%)
\$129,900 City's Match

Soft Match Details:

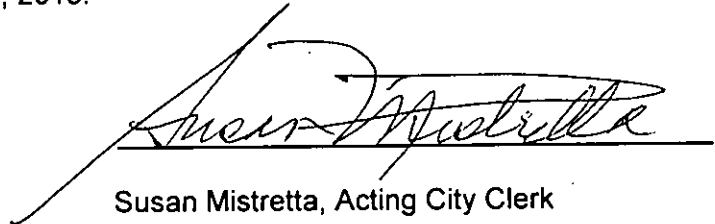
Person / Affiliation	Year	Amount	Cumulative Total
City of Dover/Public Works	1	\$64,950	\$64,950
	2	\$64,950	\$129,900

CERTIFICATE OF AUTHORITY

I, Susan M. Mistretta, Acting City Clerk for the City of Dover, New Hampshire, do hereby certify that the City Council authorized the City Manager on November 28, 2018 to create a Benchmark for Traffic Signal Performance State Project 42366 Federal Project X-A004(825). They authorized the City Manager to execute any documents which may be necessary for the City of Dover; this authorization has not been revoked, annulled or amended in any manner whatsoever, and remains in full force and effect as of the date hereof; and the following now occupies the office indicated above:

JAMES MICHAEL JOYAL, JR., CITY MANAGER

IN WITNESS WHEREOF, I have hereunto set my hand as the Acting City Clerk of Dover, New Hampshire this 28th day of November, 2018.

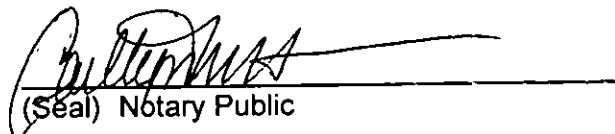


Susan Mistretta, Acting City Clerk

**STATE OF NEW HAMPSHIRE
COUNTY OF STRAFFORD**

On this the 28th day of November, 2018, before me, the undersigned officer, personally appeared Susan Mistretta, Acting City Clerk, who acknowledged herself to be the Acting City Clerk for the City of Dover New Hampshire and that she, as such Acting City Clerk, being authorized to do so, executed the foregoing instrument for the purpose herein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.



(Seal) Notary Public

CAITLYN M. HASSEN, Notary Public
My Commission Expires February 7, 2023

My Commission Expires: _____



CERTIFICATE OF COVERAGE

The New Hampshire Public Risk Management Exchange (Primex³) is organized under the New Hampshire Revised Statutes Annotated, Chapter 5-B, Pooled Risk Management Programs. In accordance with those statutes, its Trust Agreement and bylaws, Primex³ is authorized to provide pooled risk management programs established for the benefit of political subdivisions in the State of New Hampshire.

Each member of Primex³ is entitled to the categories of coverage set forth below. In addition, Primex³ may extend the same coverage to non-members. However, any coverage extended to a non-member is subject to all of the terms, conditions, exclusions, amendments, rules, policies and procedures that are applicable to the members of Primex³, including but not limited to the final and binding resolution of all claims and coverage disputes before the Primex³ Board of Trustees. The Additional Covered Party's per occurrence limit shall be deemed included in the Member's per occurrence limit, and therefore shall reduce the Member's limit of liability as set forth by the Coverage Documents and Declarations. The limit shown may have been reduced by claims paid on behalf of the member. General Liability coverage is limited to Coverage A (Personal Injury Liability) and Coverage B (Property Damage Liability) only. Coverage's C (Public Officials Errors and Omissions), D (Unfair Employment Practices), E (Employee Benefit Liability) and F (Educator's Legal Liability Claims-Made Coverage) are excluded from this provision of coverage.

The below named entity is a member in good standing of the New Hampshire Public Risk Management Exchange. The coverage provided may, however, be revised at any time by the actions of Primex³. As of the date this certificate is issued, the information set out below accurately reflects the categories of coverage established for the current coverage year.

This Certificate is issued as a matter of information only and confers no rights upon the certificate holder. This certificate does not amend, extend, or alter the coverage afforded by the coverage categories listed below.

Participating Member: City of Dover 288 Central Avenue Dover, NH 03820		Member Number: 280	Company Affording Coverage: NH Public Risk Management Exchange - Primex ³ Bow Brook Place 46 Donovan Street Concord, NH 03301-2624		
X	Type of Coverage	Effective Date (mm/dd/yyyy)	Expiration Date (mm/dd/yyyy)	Limits	NH Statutory Limits May Apply, If Not
<input checked="" type="checkbox"/>	General Liability (Occurrence Form) Professional Liability (describe) <input type="checkbox"/> Claims Made <input type="checkbox"/> Occurrence	7/1/2018	7/1/2019	Each Occurrence General Aggregate	\$ 5,000,000 \$ 5,000,000
<input type="checkbox"/>	Automobile Liability Deductible Comp and Coll: \$1,000 <input type="checkbox"/> Any auto			Fire Damage (Any one fire) Med Exp (Any one person) Combined Single Limit (Each Accident) Aggregate	
<input checked="" type="checkbox"/>	Workers' Compensation & Employers' Liability	7/1/2018	7/1/2019	<input checked="" type="checkbox"/> Statutory Each Accident Disease - Each Employee Disease - Policy Limit	\$2,000,000 \$2,000,000
<input checked="" type="checkbox"/>	Property (Special Risk includes Fire and Theft)	7/1/2018	7/1/2019	Blanket Limit, Replacement Cost (unless otherwise stated)	Deductible: \$1,000
Description: Proof of Primex Member coverage only.					

CERTIFICATE HOLDER:	Additional Covered Party	Loss Payee	Primex ³ - NH Public Risk Management Exchange
			By: <i>Tammy Denver</i>
State of New Hampshire Department of Transportation 7 Hazen Dr Concord, NH 03302			Date: 11/19/2018 tdenver@nhprimex.org
			Please direct inquires to: Primex ³ Claims/Coverage Services 603-225-2841 phone 603-228-3833 fax