



OCT 26 '12 AM 10:40



16/Br

**THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION**

**CHRISTOPHER D. CLEMENT, SR.
COMMISSIONER**

**JEFF BRILLHART, P.E.
ASSISTANT COMMISSIONER**

Bureau of Highway Design
September 24, 2012

His Excellency, Governor John H. Lynch
and the Honorable Council
State House
Concord, New Hampshire 03301

REQUESTED ACTION

1. Authorize the Department of Transportation to amend PO #500027 with McFarland-Johnson, Inc., Concord, NH and Binghamton, NY, Vendor #164736, for preliminary and final design for the rehabilitation of four red-listed bridges along the Interstate 93 corridor in the Town of Bow and City of Concord, by increasing the total lump-sum fee payable by \$520,859.66 (from \$1,505,028.45 to \$2,025,888.11) for additional design services that were not included in the previously-amended Agreement, effective upon Governor and Council approval. 100% Turnpike Funds.

Funding is available as follows:

04-96-96-961017-7507	<u>FY 2013</u>
Central NH Turnpike	
400-500870 Highway Contract Payments	\$520,859.66

2. Further, authorize to amend the contract's completion date from November 20, 2012 to June 2, 2014, effective upon Governor and Council approval.

EXPLANATION

This contract amendment is for the final design of the I-93 Exit 12 red list bridge carrying NH 3A over I-93. Two other projects involving three red list bridges have been designed under this contract; the deck replacement of the I-93 Exit 14 bridge over Bridge Street (completed in 2010), and the replacement of the I-93 bridges over Interstate 89 at Bow Junction (presently under construction). The final design of the Exit 12 bridge is the final task under this design contract.

On June 25, 2008, the Governor and Council authorized the subject engineering consulting services Agreement (Item No. 309; copy attached) for a lump-sum fee of \$393,255.00 for the preparation of rehabilitation studies recommending preliminary concepts and the level of rehabilitation for four red-listed bridges along the Interstate 93 (I-93) corridor in Bow and Concord (NB and SB at I-89, Exit 12, Exit 14), as well as the final design for the complete deck replacement for the bridge at Exit 14. The scope and fee for the final design for the rehabilitation of the three remaining bridges was to be negotiated as an amendment after completion and acceptance of the Rehabilitation Study. This project is currently included in the State's Ten-Year Transportation Improvement Plan and Turnpike Capital Program (Bow-Concord 13742A).

On March 24, 2010, the Governor and Council authorized a fee increase amendment to the Agreement (Item No. 119; copy attached) in the amount of \$942,821.51 for additional services associated with the final design for the rehabilitation of the two bridges that carry Interstate 93 over Interstate 89 and preliminary design for rehabilitating or replacing the Exit 12 bridge. The amendment increased the total amount payable from \$393,255.00 to \$1,336,076.51 and also extended the contract's completion date from June 30, 2010 to December 31, 2011.

On July 13, 2011, the Governor and Council authorized a fee increase amendment to the Agreement (Item No. 132; copy attached) in the amount of \$168,951.94 for additional services associated with an additional study for Exit 12 to better understand potential interchange configurations, development of a Transportation Management Plan for the reconstruction of the I-93 bridges over I-89, extension of the project limits southerly of the Grandview Road bridge, and drainage upgrades and re-paving of the entire portion of I-93 connecting I-93 NB with I-89 NB. The amendment increased the total amount payable from \$1,336,076.51 to \$1,505,028.45 and also extended the contract's completion date from December 31, 2011 to November 20, 2012.

On July 11, 2012, the Governor and Council **removed and denied** a fee increase amendment to the Agreement that was **tabled** at the June 20, 2012 meeting (Item No. 233; copy attached) due to lack of support from the Concord City Council for the proposed construction that included two roundabouts. That fee increase amendment was in the amount of \$569,743.48 and was for additional services associated with the final design for the replacement of the bridge that carries NH 3A over Interstate 93 at Exit 12, and the design for roundabouts at the two ramp intersections with NH 3A.

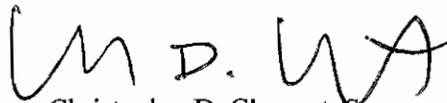
The currently-proposed amendment to the Agreement is for additional highway design, bridge design, environmental and archaeological services associated with the final design for the replacement of the bridge that carries NH 3A over Interstate 93 at Exit 12, and only the minimum amount of ramp work necessary to connect to the existing ramps. The remainder of the interchange will not be reconstructed.

McFarland-Johnson, Inc. has agreed to furnish the additional services for \$520,859.66. This amendment will increase the total lump-sum fee payable under this Agreement from \$1,505,028.45 to \$2,025,888.11. The increase in fee as proposed is commensurate with the revised scope of work and the corresponding additional engineering and technical services to be furnished.

This amended Agreement has been approved by the Attorney General as to form and execution. Copies of the fully-executed amended Agreement 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 amend this Agreement for consulting services as outlined above.

Sincerely,

A handwritten signature in black ink, appearing to read "C. D. Clement, Sr.", written in a cursive style.

Christopher D. Clement, Sr.
Commissioner



RISTOPHER D. CLEMENT, SR.
 COMMISSIONER

JEFF BRILLHART, P.E.
 ASSISTANT COMMISSIONER

BOW-CONCORD
 13742A
 (Agreement Dated May 20, 2008
 Contract No. 866006)

Bureau of Highway Design
 Room 200 (CMF)
 Tel. (603) 271-2165
 Fax (603) 271-7025

September 24, 2012

Mr. Michael D. Long, P.E.
 McFarland-Johnson, Inc.
 53 Regional Drive
 Concord, NH 03301

Dear Mr. Long:

This letter amends Article I, Description of Professional Services to be Rendered; Section E (Scope of Work – Final Design) and Section J (Date of Completion) as well as Article II, Compensation of Consultant for Lump Sum Agreements; Section A (General Fee) in the above-referenced Agreement.

Article I, Section E (Scope of Work – Final Design) is being amended to incorporate the engineering tasks and services primarily associated with the replacement of the bridge that carries NH 3A over Interstate 93 at Exit 12 as outlined in the Detailed Scope of Services issued July 30, 2012, submitted by and received from the CONSULTANT, which is included as an attachment to this amendment.

Article I, Section J (Date of Completion) is being amended to allow sufficient time to complete the additional services. The original and amended dates are as follows:

Original Completion Date	June 30, 2010
Amended to	December 31, 2011
Amended to	November 20, 2012
By this letter, amended to	June 2, 2014

Article II, Section A (General Fee) is being amended to increase the total lump-sum amount payable under this Agreement by \$520,859.66 as payment for additional design services by McFarland-Johnson, Inc. for work not anticipated under the previously-amended agreement.

The portion of Article II, Section A (General Fee) specifying the apportionment of the total lump-sum fee is being amended to read as follows:

In consideration of the terms and obligations of this AGREEMENT, the STATE, through the DEPARTMENT, hereby agrees to pay and the CONSULTANT agrees to accept as full compensation for all services rendered to the satisfaction of the DEPARTMENT under this AGREEMENT, except as otherwise herein provided, a total lump sum of \$2,025,888.11, apportioned as follows:

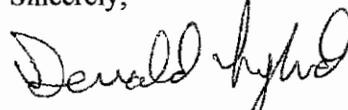
Bridge No. 163/106 (Rehabilitation Study and Final Design):	<u>\$283,792.76</u>	(does not change)
Bridge No. 203/087 (Rehabilitation Study Only):	<u>\$62,370.00</u>	(does not change)
(Replacement Study to TS&L):	<u>\$82,418.96</u>	(does not change)
(Final Design):	<u>\$510,799.91</u>	(prev. \$0.00)
Bridge No. 135/160 & 136/160 (Rehabilitation Study Only):	<u>\$64,497.00</u>	(does not change)
(Final Design):	<u>\$969,455.30</u>	(does not change)

Bridge No. 136/131 (Design for Pier Repairs):	<u>\$15,696.63</u>	(does not change)
McFarland-Johnson Sub-Total:	<u>\$2,029,101.37</u>	(prev. \$1,478,230.65)
Independent Archaeological Consulting, LLC (subconsultant)	<u>\$36,857.54</u>	(prev. \$26,797.80)
Contract Total:	<u>\$2,025,888.11</u>	(prev. \$1,505,028.45)

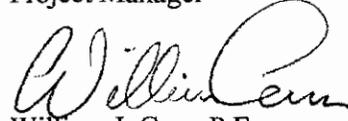
The above fee increase revises the total lump-sum fee payable under this Agreement, which increases from \$1,505,028.45 to \$2,025,888.11 by this amendment.

This amendment becomes effective upon approval by the Governor and Council.

Sincerely,



Donald A. Lyford, P.E.
Project Manager



Approved:

William J. Cass, P.E.
Director of Project Development

We concur in the above Amendment.

MCFARLAND-JOHNSON, INC.

By: _____



JAMES M. FRSTA

Title: _____

SRVP/COO

Attachment

AGREEMENT AMENDMENT

BOW-CONCORD, 13742A

MCFARLAND-JOHNSON, INC.

IN WITNESS WHEREOF the parties hereto have executed this amended AGREEMENT on the day and year first above written.

Consultant

WITNESS TO THE CONSULTANT

By: *Linda M. March*
Linda M. March
Administrative Assistant

Dated: 9/26/12

CONSULTANT

By: *James Festa*
JAMES FESTA
SRVA/COO (Title)

Dated: 9/26/12

Department of Transportation

WITNESS TO THE STATE OF NEW HAMPSHIRE

By: *Michelle Owen*

Dated: 10/2/12

THE STATE OF NEW HAMPSHIRE

By: *William J. Cass*
William J. Cass, P.E.
Director of Project Development
DOT COMMISSIONER

Dated: 10/2/12

Attorney General

This is to certify that the above-amended AGREEMENT has been reviewed by this office and is approved as to form and execution.

Dated: 10/24/12

By: *David M. Hiltz*
Assistant Attorney General
David M. Hiltz

Secretary of State

This is to certify that the GOVERNOR AND COUNCIL on _____ approved this amended AGREEMENT.

Dated: _____

Attest:

By: _____
Secretary of State

**CERTIFICATE OF SECRETARY
OF
McFARLAND-JOHNSON, INC.
ATTESTING TO THE ADOPTION OF BOARD RESOLUTION**

I, Frank J. Greco, Secretary of McFarland-Johnson, Inc., certify that on March 7, 2012, at a Meeting of the Board of Directors of McFarland-Johnson, Inc., the Directors, acting unanimously, adopted the following resolution:

RESOLVED, that the following elected Officers and employees of the Corporation are authorized to sign contracts in the name of, and on behalf of, the Corporation, in accordance with corporate policies and rules:

<u>Name</u>	<u>Office</u>
Richard J. Brauer	- President/CEO – Engineering
James M. Festa	- Sr. Vice President/COO/Chief Engineer/ Binghamton Regional Office Manager
Frank J. Greco	- Sr. Vice President/CFO/Secretary/Treasurer
Chad G. Nixon	- Sr. Vice President/BDO
Robert W. Lambert	- Vice President
Frederick D. Mock	- Vice President
Michael D. Long	- Concord Regional Office Manager

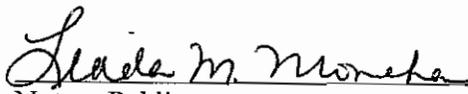
I certify that as a result of the action of the Board of Directors, James M. Festa, Sr. Vice President/COO/Chief Engineer/Binghamton Regional Office Manager of McFarland-Johnson, Inc., is fully authorized to enter into contracts, including Bow-Concord, 13742A, in the name of and on behalf of the Corporation for the rendering of services by the Corporation.



Frank J. Greco, Secretary

[CORPORATE SEAL]

SUBSCRIBED AND SWORN TO
this 26th day of September, 2012



Notary Public

LINDA M. MONAHAN
Notary Public, State of New York
No. 4928747
Residing in Seneca County
My commission expires 7/26/14

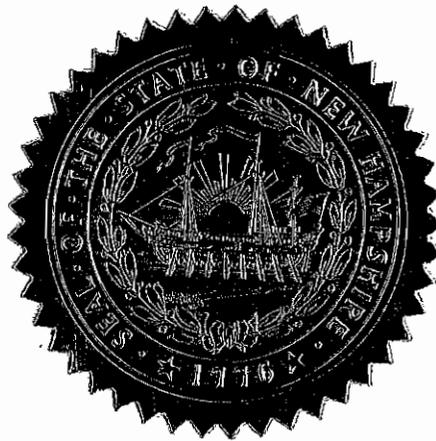
L:[LOO/MISC/FIG]002



State of New Hampshire Department of State

CERTIFICATE

I, William M. Gardner, Secretary of State of the State of New Hampshire, do hereby certify that MCFARLAND-JOHNSON, INC., a(n) New York corporation, is authorized to transact business in New Hampshire and qualified on February 14, 1969. I further certify that all fees and annual reports required by the Secretary of State's office have been received.



In TESTIMONY WHEREOF, I hereto set my hand and cause to be affixed the Seal of the State of New Hampshire, this 23rd day of April, A.D. 2012

A handwritten signature in cursive script, appearing to read "William M. Gardner".

William M. Gardner
Secretary of State





CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
12/28/2011

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Robert J. Hanafin, Inc. 204 Washington Ave. P. O. Box 509 Endicott NY 13760	CONTACT NAME: Renee Davidson PHONE (A/C, No, Ext): (607) 754-3500 FAX (A/C, No): (607) 754-9797 E-MAIL ADDRESS: renee@rjhanafininc.com														
INSURED McFarland Johnson, Inc. 49 Court Street PO Box 1980 Binghamton NY 13902-1980	<table border="1"> <tr> <th>INSURER(S) AFFORDING COVERAGE</th> <th>NAIC #</th> </tr> <tr> <td>INSURER A: Trumbull Insurance Company</td> <td>27120</td> </tr> <tr> <td>INSURER B: Hartford Fire Insurance Company</td> <td>19682</td> </tr> <tr> <td>INSURER C: Hartford Casualty Insurance Co</td> <td>29424</td> </tr> <tr> <td>INSURER D: Hartford</td> <td>100</td> </tr> <tr> <td>INSURER E:</td> <td></td> </tr> <tr> <td>INSURER F:</td> <td></td> </tr> </table>	INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A: Trumbull Insurance Company	27120	INSURER B: Hartford Fire Insurance Company	19682	INSURER C: Hartford Casualty Insurance Co	29424	INSURER D: Hartford	100	INSURER E:		INSURER F:	
INSURER(S) AFFORDING COVERAGE	NAIC #														
INSURER A: Trumbull Insurance Company	27120														
INSURER B: Hartford Fire Insurance Company	19682														
INSURER C: Hartford Casualty Insurance Co	29424														
INSURER D: Hartford	100														
INSURER E:															
INSURER F:															

COVERAGES CERTIFICATE NUMBER: 12-13 Master REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY					EACH OCCURRENCE \$ 1,000,000
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY		01SBAAQ4699 (VT, MA)	1/1/2012	1/1/2013	DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR	X	01SBAAQ4702 (NY)			MED EXP (Any one person) \$ 10,000
			01SBAAQ4704 (CT, NH, PA)			PERSONAL & ADV INJURY \$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:					GENERAL AGGREGATE \$ 2,000,000
	<input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC					PRODUCTS - COMP/OP AGG \$ 2,000,000
B	AUTOMOBILE LIABILITY					COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000
	<input checked="" type="checkbox"/> ANY AUTO ALL OWNED AUTOS		01UECGF9204	1/1/2012	1/1/2013	BODILY INJURY (Per person) \$
	<input checked="" type="checkbox"/> HIRED AUTOS	<input checked="" type="checkbox"/> SCHEDULED AUTOS NON-OWNED AUTOS				BODILY INJURY (Per accident) \$
						PROPERTY DAMAGE (Per accident) \$
						Uninsured motorist combined \$
C	<input checked="" type="checkbox"/> UMBRELLA LIAB	<input checked="" type="checkbox"/> OCCUR				EACH OCCURRENCE \$ 10,000,000
	<input type="checkbox"/> EXCESS LIAB	<input type="checkbox"/> CLAIMS-MADE				AGGREGATE \$ 10,000,000
	<input type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTIONS \$ 10,000		01XHUWZ3498	1/1/2012	1/1/2013	\$
D	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY					<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	<input type="checkbox"/> Y/N	N/A			E.L. EACH ACCIDENT \$ 500,000
	if yes, describe under DESCRIPTION OF OPERATIONS below		01WBCEPT5691	1/1/2012	1/1/2013	E.L. DISEASE - EA EMPLOYEE \$ 500,000
						E.L. DISEASE - POLICY LIMIT \$ 500,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Project: Bow - Concord, 13742A

New Hampshire Department of Transportation shall be named as additional insured on the General Liability policy.

CERTIFICATE HOLDER

New Hampshire
Department of Transportation
PO Box 483
Concord, NH 03302-0483

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Debbie Blanchard/LORI *Deborah K Blanchard*



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
5/22/2012

PRODUCER (201)262-1200 FAX: (201)262-7810
 Fenner & Esler
 467 Kinderkamack Road
 P. O. Box 60
 Oradell NJ 07649-0060

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 POLICIES BELOW.

INSURED
 McFarland-Johnson, Inc.
 49 Court Street, Metrocenter
 PO Box 1980
 Binghamton NY 13902-1980

INSURERS AFFORDING COVERAGE		NAIC #
INSURER A:	OneBeacon Insurance Company	21970
INSURER B:		
INSURER C:		
INSURER D:		
INSURER E:		

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR ADD'L LTR	INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YYYY)	POLICY EXPIRATION DATE (MM/DD/YYYY)	LIMITS	
		GENERAL LIABILITY <input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC				EACH OCCURRENCE	\$
						DAMAGE TO RENTED PREMISES (Ea occurrence)	\$
						MED EXP (Any one person)	\$
						PERSONAL & ADV INJURY	\$
						GENERAL AGGREGATE	\$
						PRODUCTS - COMP/OP AGG	\$
		AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS				COMBINED SINGLE LIMIT (Ea accident)	\$
						BODILY INJURY (Per person)	\$
						BODILY INJURY (Per accident)	\$
						PROPERTY DAMAGE (Per accident)	\$
		GARAGE LIABILITY <input type="checkbox"/> ANY AUTO				AUTO ONLY - EA ACCIDENT	\$
						OTHER THAN AUTO ONLY	EA ACC \$ AGG \$
		EXCESS / UMBRELLA LIABILITY <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> DEDUCTIBLE <input type="checkbox"/> RETENTION \$				EACH OCCURRENCE	\$
						AGGREGATE	\$
							\$
							\$
		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? <input type="checkbox"/> Y/N (Mandatory in NH) If yes, describe under SPECIAL PROVISIONS below				WC STATU-TORY LIMITS	OTH-ER
						E.L. EACH ACCIDENT	\$
						E.L. DISEASE - EA EMPLOYEE	\$
						E.L. DISEASE - POLICY LIMIT	\$
A		OTHER Professional Liability	DPL-0764-11 DPL-0764-12 Retro Date: 1/1/1946	6/15/2011 6/15/2012	6/15/2012 6/15/2013	Per Claim Limit	\$5,000,000
						Aggregate Limit	\$5,000,000
						Deductible per claim	\$50,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS
 RE: for Bow-Concord 13742A

CERTIFICATE HOLDER

New Hampshire Department
 of Transportation
 P.O. Box 483
 Concord, NH 03302-0483

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

Timothy Esler/MICHEL

**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 3**

**PART B
DETAILED SCOPE OF SERVICES
BRIDGE NO. 203/087 (EXIT 12)**

Revised July 30, 2012

This scope of services for Amendment 3 includes the preliminary design, final design, environmental, and contract document preparation for the bridge that carries NH Route 3A over Interstate 93 (I-93) (Bridge No. 203/087). The scope of services assumes a complete bridge replacement and associated approach roadway work as shown on the attached conceptual layout. It is assumed that no future configurations of Exit 12 will be evaluated. This detailed scope of services is intended to supplement the general provisions outlined in the Master Agreement.

BRIDGE DESIGN

TASK 1 – TYPE, SIZE & LOCATION (TS&L) PLANS

An abbreviated TS&L study will be completed based on the two span bridge concept developed previously. Two superstructure beam systems (NEBT and steel plate girders) will be evaluated for use. A multi-column pier bent is assumed for the median substructure unit, and stub abutments on MSE breast walls are assumed at both ends of the bridge. The bridge width will be based on the approach roadway requirements as determined during the pre-preliminary highway phase.

The TS&L effort will also evaluate the constructability and workspace requirements of the new bridge based on its proximity to the existing bridge. A combined TS&L and Boring Layout package will be submitted, and shall consist of plans (General Plan & Elevation, Site Plan & Profile, Typical Bridge Sections, and Bridge Traffic Control Sections), letter report, and preliminary bridge cost estimates.

TASK 2 – PRELIMINARY PLANS

The TS&L plans will be revised to reflect comments received and the design will be progressed to the preliminary plan milestone. We have assumed the NHDOT will perform geotechnical design, including soil-structure interaction, of any deep foundation elements that may be required. MJ will provide preliminary and final design loads to the NHDOT and MJ will develop the preliminary structural design of these elements using the results from the geotechnical analyses.

The preliminary geotechnical recommendations will be provided by the Department to MJ as part of the preliminary plan review comments. MJ will provide vertical clearance calculations. Preliminary abutment elevations will be developed and added to the plans. A preliminary bridge cost estimate will also be provided.

TASK 3 - PRELIMINARY PS&E

The detailed design of the structure will be completed during this phase. For the purposes of this scope development, it is assumed that straight steel plate girders will be designed using the

**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 3**

Merlin-Dash (line girder) software program. MSE breast walls with cast-in-place stub abutments are also assumed. The bridge plans will be advanced to include all of the anticipated plan sheets, except for the reinforcing steel schedules. Bridge quantities will be completed and reviewed in order to develop a reasonable PPS&E bridge cost estimate.

TASK 4 - PS&E SUBMISSION

The deck design and detailing will be finalized to incorporate comments received and to develop reinforcing bar marks for all cast-in-place components. A Bridge Capacity Summary (Form 4) will be completed for the bridge. Ratings will be summarized for the deck and controlling interior and exterior girder. The interim quantities developed during Task 3 will be updated to reflect the latest PS&E design information. In addition, a second independent quantity take-off will be performed and the results compared to the first. The two quantity sets will be prepared and any differences will be resolved prior to submission.

TASK 5 - CONTRACT PLANS (MYLARS)

The plans will be updated to reflect comments received from the Department on the PS&E submission. The quantities will be updated to reflect changes made to the plans and/or specifications. It is anticipated that only minor revisions will be required at this stage. The final plans and calculations will be reviewed, printed and packaged for submission to the Department.

HIGHWAY DESIGN

All highway submissions will follow the NHDOT Consultant Design submission descriptions and check lists.

TASK 1 – PRE-PRELIMINARY HIGHWAY PLANS

A Pre-Preliminary submission will be prepared for the highway related work associated with the replacement of the Exit 12 Bridge and the associated approach roadway re-configuration. Options for the alignment of Route 3A will be evaluated to determine the best balance between horizontal alignment and bridge span length. This evaluation will include consideration of alternate traffic control scenarios. An evaluation of the ramps will be conducted to determine if improvements can be made to the deficient deceleration lengths. The ramp intersections with Route 3A will also be evaluated to determine if safety improvements are possible.

The submission will include evaluating the mainline operations between Interstate 89 and Exit 12. The evaluation will include a traffic analysis to determine the benefits of providing auxiliary lanes. It is assumed that no additional lanes, including auxiliary lanes, will be constructed on I-93 as part of this project. An evaluation of the ultimate I-93 configuration will be conducted to establish the centerline of the corridor. Conceptual Construction Cost estimates will be included. Additional traffic counts on I-93 and ramps will also be conducted by MJ. Vertical clearance calculations will be developed to support the proposed Route 3A profile.

The Pre-Preliminary submission will include a conceptual traffic control plan for the project. For the purposes of this scope it is assumed that: (1) Traffic control will be required on I-93 to

**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 3**

demolish the existing bridge and construct the new pier in the median, (2) temporary ramp connections will be required, and (3) some ramps may need to be closed to accommodate pier construction in median.

The base maps to be used for contract plans will be developed during this task from the ground survey conducted and provided to MJ by the Department. Additional coverage on the north and south limits of Route 3A will be required. It is assumed the project limits will extend from the northern limits of the I-93/I-89 interchange construction north to the northern limit of the existing northern southbound exit deceleration ramp.

TASK 2 – PRELIMINARY HIGHWAY PLANS

After receiving comments on the Pre-Preliminary Submission, the Preliminary submission will be prepared for the highway related work using the Department's preferred configuration. The Preliminary submission will include the development of a Traffic Management Plan (TMP). It is assumed that Traffic Control Plans (TCP) for each phase of the construction will be required. Diversion alignments are assumed for the ramp connections.

The Preliminary submission will include a conceptual evaluation of the stormwater impacts and potential modifications. It is assumed that the South End Marsh will not be impacted by this project.

TASK 3 – SLOPE & DRAIN SUBMISSION

A Slope and Drain submission will be prepared for the highway related work associated with the replacement of the bridges. TCP plans will be completed to near final form.

It is assumed that all proposed work will be confined to the existing right of way of I-93 and Exit 12. The proposed slopes will be steepened or retaining walls will be evaluated to avoid the need to acquire additional right-of-way. The existing right-of-way limits will be provided by the Department in Microstation as per the Department CADD Standards.

No right of way plans are included in this scope of services.

It is expected that two Best Management Practices (BMP's) for storm water treatment will be required. The BMP's must meet Alteration of Terrain (AOT) and NH Stormwater Manual criteria.

After review of the Slope and Drain submission, utility plans will be submitted to the Department for use in preparing utility relocations that may be required. City of Concord water lines are currently carried on the bridge and a sewer line runs adjacent to the existing bridge abutment. Intelligent Transportation System (ITS) components will be placed along I-93 prior to the construction of this project. Any relocations or improvements of ITS components will be determined by the Department and included in the project plans and specifications.

TASK 4 - PRELIMINARY PS&E

A Preliminary PS&E submission will be prepared for the highway related work. Completed TCP plans will be included.

**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 3**

TASK 5 - PS&E SUBMISSION

PS&E submission will be prepared for the highway related work.

TASK 6 - CONTRACT PLANS (MYLARS)

The plans will be updated to reflect comments received from the Department. The quantities will be updated to reflect changes made to the plans and/or specifications. The draft special provisions will be finalized based on comments received. It is anticipated that only minor revisions will be required at this stage. The final plans, calculations, and special provisions will be reviewed, printed and packaged for submission to the Department.

TASK 7 – PUBLIC PARTICIPATION

7.1 Public Informational Meeting – MJ will prepare for and participate in a Public Informational Meeting. The purpose of the meeting is to present the replacement plan and traffic management plan for the Exit 12 improvements to the public. MJ will prepare a colored project plan and exhibits for the meeting. MJ will also coordinate the advertisement of the meeting in local newspapers and CCTV. It is assumed that one (1) Public Informational Meeting will be held. It is assumed that the Department will reserve and make all the arrangements for use of the venue for the meeting.

It is assumed that the color plan developed for the public informational meeting will need to be updated at the completion of the Slope and Drain, PPS&E, and PS&E submissions and at the completion of the Contract Plans submission for use by the Department.

ENVIRONMENTAL STUDIES

TASK 1 – ENVIRONMENTAL STUDY

The deliverable for this task is an environmental study that will provide the basis for the project to move forward to final design and other state and federal permitting processes. The project study area is shown on the attached conceptual layout.

1.1 Identify Existing Environmental Resources – Identify all existing resources along the project corridor to the extent that the Planning Study did not. Resources and related considerations to be identified or addressed include:

- Traffic and Transportation – MJ will describe the existing traffic and transportation network, including any bicycle or pedestrian facilities.
- Groundwater – Aquifers and wells were mapped for the Bow-Concord planning study, and no further groundwater resource identification is necessary.
- Water bodies – Gather existing information regarding the characteristics and quality of water bodies within or immediately downstream of the corridor, specifically South End Marsh, wetlands between Route 3A and the railroad, and Bow Brook. Inventory existing drainage systems.

**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 3**

- Wetlands – Wetlands and waterways will be mapped based on a field delineation and survey within the project corridor. Wetland functions, values, and general characteristics will be described.
- Floodplains and Floodways – Floodplain mapping has been obtained from the City of Concord. Any FEMA-mapped floodways will be identified. It is assumed that no hydraulic analyses are required.
- Threatened/Endangered Species, Wildlife, and Fisheries Habitat – The NH Fish and Game Department and the NH Natural Heritage Bureau will be contacted to update the determinations regarding the existence of any threatened or endangered species or important habitat within the project vicinity. It is expected that none exist. Fish and wildlife habitat will be identified using existing information and a brief field reconnaissance, to be conducted during wetland delineation work.
- Public and conserved lands – MJ will identify any publically conserved lands, Land Conservation Investment Program lands, Section 6(f) property, or other public or conserved lands in the project area. Of note are the South End Marsh and an adjacent mitigation site.
- Historic Resources – The *Historical Resources Constraints Report* prepared for the Bow-Concord project in March 2005 identified the “South End Historic Neighborhood” as a historic district that is eligible for the National Register. This neighborhood overlaps the northwestern portion of the project, along North Main Street west of I-93. MJ will confirm the findings and conclusions with the NHDOT cultural resources specialist and NHDHR. No further resource ID is assumed.
- Archeological Resources – A consulting archeologist previously identified archeologically sensitive areas in two places within the study area. A Phase 1B and, where appropriate, additional combined Phase IA/IB archaeological investigations will be conducted by Independent Archaeological Consulting (IAC). It is not anticipated that the new bridge and associated approach roadway will disturb these areas. Design plans may require additional archaeological sensitivity assessment of small areas adjacent to those already identified in the previous limited field survey.

IAC will conduct subsurface testing in areas identified during the 2004 study to confirm whether intact deposits exist. The sampling regime will be determined in consultation with NHDOT. IAC will produce a report of its findings including detailed plans overlaid on construction plans, drawings of archaeological features, photographs, results of lab analysis, background research, interpretations, and recommendations.

IAC will also attend up to two cultural resources meetings to discuss findings of the Phase 1B study, alternatives, impacts, and possible mitigation measures.

- Hazardous Materials – The review carried out for the Bow-Concord planning study found records of several oil or hazardous/contaminated waste sites in the Exit 12 area. One site, on South Street, warranted detailed review, which revealed the site was under a Groundwater Management Permit. Therefore, the consultant recommended no further review. MJ will review the NHDES one-stop database to determine whether new sites have been identified since the 2005 study. It is assumed that further study of hazardous materials will not be warranted.
- Environmental Justice – The Department will provide the documentation for environmental justice for the project. The Department will determine the socio-economic



**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 3**

and minority status of neighborhoods within the study area and provide a memorandum of findings, which MJ will incorporate in the Environmental Study.

- Invasive Species – MJ will identify the types and extent of invasive species during field investigations and will show locations on resource plans.

These resources will be identified and quantified throughout the project study area. The project study area is assumed to extend from the northern limits of the I-93/I-89 interchange construction north to the northern limit of the existing northern southbound exit deceleration ramp; south and east along Route 3A to approximately the Dunkin Donuts; north and west along South Main Street to the Broadway intersection; and laterally to the edges of wetlands or developed areas as shown on the attached conceptual plan. A Section 4(f) evaluation will not be needed. We have also assumed that there will be No Effect or No Adverse Effect under Section 106 and no formal Section 106 MOA will be needed.

1.2 Impact Assessment and Mitigation – Impacts to existing resources will be identified for each alternative.

- Air Quality – Because the project is in an attainment area and is not considered a “Regionally Significant Project” (per 40 CFR 93.101 and the Statewide Transportation Improvement Program), no conformity determination is necessary. However, it must be determined whether the project may result in a violation of National Ambient Air Quality Standards (NAAQS). Experience with similar projects with higher traffic volumes indicates it is highly unlikely this project would result in violations of the NAAQS. Therefore, no microscale analysis is proposed. Instead, MJ will describe in general terms the changes in traffic patterns and their likely effects on air quality. Other projects will be cited to support the conclusions.
- Noise – Because the project only proposes minor alignment modifications, a noise impact analysis will not be prepared. MJ will describe in general terms the potential noise impact on the adjacent residences.
- Traffic and Transportation – Describe temporary and permanent effects on traffic and transportation. It is assumed the project will not affect pedestrian facilities.
- Groundwater: It is assumed there will be no groundwater impacts.
- Water Body Modification – It is assumed there will be no direct physical impacts to waterways or water bodies, but any such impacts will be quantified in terms of linear feet, square footage, and relocation segments.
- Water Quality – Describe potential water quality impacts in general terms. Quantify increases in pavement and stormwater runoff. Describe possible water quality treatment measures and peak flow mitigation, as appropriate.
- Wetlands – Quantify wetland impacts and assess impacts to wetland functions and values. Describe possible mitigation measures.
- Floodplains and Floodways – Floodplain and floodway impacts will be quantified in terms of the project footprint in square footage. Potential mitigation measures will be described in general terms. It is assumed net impacts will be negligible, and no formal



**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 3**

mitigation will be needed. It is further assumed that the Base Flood Elevation (BFE) will not need be determined and is not included in this scope.

- Threatened/Endangered Species, Wildlife, and Fisheries Habitat – The kinds and quality of habitat affected will be described and the impact footprint will be quantified. Because of the disturbed condition of the study area, it is assumed no mitigation will be necessary.
- Public and conserved lands – It is assumed that public or conserved lands are present but will not be affected.
- Historic Resources – MJ will confirm that the historic resources present will not be affected through consultation with the NHDOT cultural resources specialist and NHDHR.
- Archeological Resources – IAC will produce a report of its findings including detailed plans overlaid on construction plans, drawings of archaeological features, photographs, results of lab analysis, background research, interpretations, and recommendations. It is assumed that no detailed impact assessment or follow-up studies are needed. MJ and IAC will attend two cultural resource agency meetings at NHDOT to present the findings of the Phase IB report.
- Hazardous Materials – It is assumed that no further hazardous materials study or assessment is needed.
- Environmental Justice – It is assumed no minority or low income populations occur in the vicinity, so no impact assessment is necessary.
- Impacts to land use, social and economic resources, and properties are expected to be negligible and will not require analysis.
- Permit issues will also be addressed.
- Assess how the project will effect invasive species populations and dispersal.

1.3 Environmental Documentation – The Environmental Study will include the following components:

- Description of the proposed action
- Project Purpose and Need
- Alternatives considered
- Coordination and public participation
- Resources and environmental effects
- Mitigation measures
- Permit requirements
- Summary of environmental commitments
- Figures depicting resources within the study area
- Supporting documents and correspondence

The draft Environmental Study will be submitted to NHDOT (and others, if appropriate) for review. Once comments are received, the draft document will be revised as needed and finalized. The Environmental Study is the final deliverable for the Environmental Studies portion of the project.

**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 3**

1.4 Resource Agency Coordination – The following resource agency coordination meetings are proposed:

- An initial meeting with the natural resource agencies at the monthly NHDOT meeting to introduce the project. This meeting will make the agencies aware of the project and help identify any concerns that they may have. This meeting will occur early in the process.
- A second meeting will be held with the resource agencies to review alternatives and impacts. This meeting will provide confirmation of the preferred alternative and its impacts and mitigation.
- Two meetings with NHDES will be held to discuss permitting issues.
- Two cultural resource agency meetings.

TASK 2 – ENVIRONMENTAL PERMITTING

2.1 Wetland Permitting – The proposed work will likely require wetland impacts. It is anticipated that the work will be categorized as a minor impact under the NHDES Wetland Rules. MJ will meet at NHDES with wetland permitting personnel. MJ will prepare a Standard Dredge and Fill Application as well as all necessary plans and documentation for submittal to NHDES. A preliminary check with the New Hampshire Natural Heritage Bureau indicates that there are rare species in the vicinity of the project. Some level of coordination with either the Natural Heritage Bureau and/or the New Hampshire Fish and Game Department will be necessary.

It is assumed that the wetland impacts will be covered under the Army Corps Programmatic General Permit, and that no Army Corps Individual Permit will be required for this project.

2.2 Erosion Control Plans - MJ will prepare erosion control plans and associated details for the entire contract limits. These plans will use the general plan cut sheets as the base, with existing contours, proposed contours, sedimentation measures, and perimeter controls shown. In addition, a roll plan will be developed to facilitate the NHDES review. The roll plan will simply be a plot from our base files, and no effort will be made to rotate text labels, cells, or other features to match the roll plan orientation. Lastly, this effort will include updating the construction schedule for major work items.

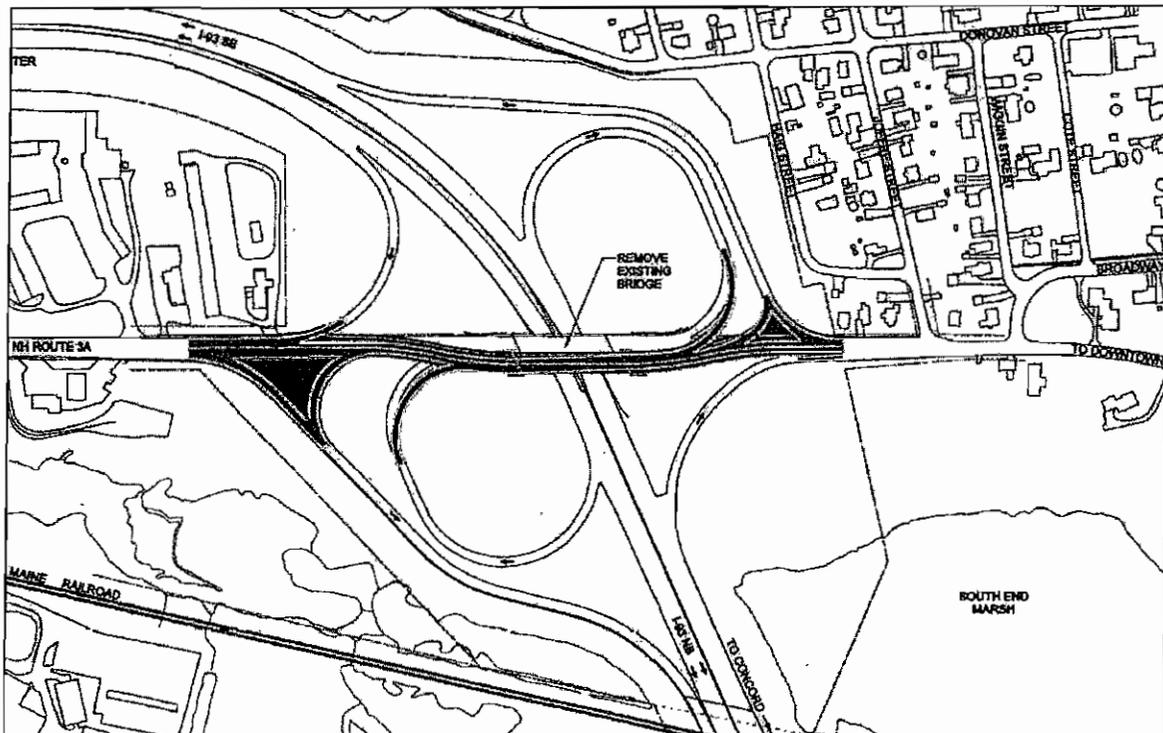
**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 3**

GENERAL SCOPE ASSUMPTIONS:

1. U.S. Customary (English) units will be utilized.
2. Bridge designs will utilize the AASHTO LRFD Bridge Design Specifications, 6th Edition (2012).
3. A single construction contract will be used to complete all of the work.
4. No electronic submission of plan files will be required at any of the interim stage submissions. Electronic files will only be submitted at the contract plans submission.
5. Bar marks and reinforcing schedules will be prepared for cast-in-place concrete substructure and superstructure components when required. Bar marks and reinforcing schedules will not be prepared for precast bridge elements.
6. Surveying services (except for wetland delineation survey described below) will be performed by the NHDOT. Any additional survey information will be provided by NHDOT in Microstation format conforming to the Department's CAD/D Procedures and Requirements as of the date of execution of this agreement.
7. Subsurface soil exploration program and preliminary and final geotechnical engineering services will be performed by the NHDOT.
8. Right of way abstracting will be performed by the NHDOT. Abstracting information will be provided by NHDOT in Microstation format conforming to the Department's CAD/D Procedures and Requirements as of the date of execution of this agreement. No Right of Way Plans are required.
9. MJ will be responsible for the design of all pavement markings, signs, and pedestrian signals within the project area.
10. One cantilever overhead sign structure will remain in place with only the signs panels requiring replacement. One new cantilever overhead sign structure will be required. MJ will provide stick diagrams and approximate foundation quantities for the new sign structure. Construction support services are not included, and will be covered under a separate agreement.
11. BMP/Water Quality measures will be designed according to the AOT regulations and the latest NH Stormwater Manual.
12. Permanent and temporary lighting design will be completed by the Department. MJ will incorporate lighting into the design plans. Lighting to include ramp nose lighting and roundabout lighting as required.
13. No inspection of existing culverts will be performed by MJ to evaluate their condition. Existing drainage systems critical to this project will be analyzed assuming they outlet within 500 feet of the project.
14. All utility coordination will be conducted by the NHDOT.
15. An existing sanitary sewer line will be impacted by the project and require relocation. It is assumed the relocation design will be done by others and the new location will be presented on the plans. MJ will incorporate plans by others.

**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 3**

16. An existing water line is located on the bridge and will need to be accommodated on the new bridge. It is assumed the permanent and temporary design of the water line will be done by others and presented on the plans.
17. The existing median railings will be replaced with thrie beam railing where impacted by the removal of the existing bridge.
18. Traffic volume counts from permanent counters along I-93 will be provided by the NHDOT.
19. MJ will survey wetland delineation flagging using a GPS unit with sub-meter accuracy.
20. No Section 4(f) evaluation will be needed.
21. No further historic resource work will be needed.
22. A total of six (6) resource agency meetings are proposed.
23. No Alteration of Terrain Permit will be required.
24. The 2009 MUTCD will be used.
25. The improvements on the northern section of Route 3A will extend to Broadway and include extending the sidewalk to the existing sidewalk on Broadway.
26. The NHDOT will prepare any bridge related special provisions that may be required.
27. Construction phase services are not included. It is anticipated these services will be included as an amendment to this contract or through a separate agreement at a later date.



Conceptual Layout

**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 3**

The following sections of the master Agreement for Contract 13742A shall be amended as described below.

Revise Article I, Section J to read:

J. DATE OF COMPLETION

The date of completion for the design services rendered under this AGREEMENT shall be June 2, 2014. Completion of construction services shall be in accordance with Article I-I - Construction Services.







CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
12/28/2011

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Robert J. Hanafin, Inc. 204 Washington Ave. P. O. Box 509 Endicott NY 13760		CONTACT NAME: Renee Davidson PHONE (A/C No. Ext): (607) 754-3500 FAX (A/C No.): (607) 754-9797 E-MAIL ADDRESS: renee@rjhanafininc.com															
INSURED McFarland Johnson, Inc. 49 Court Street PO Box 1980 Binghamton NY 13902-1980		<table border="1"> <thead> <tr> <th>INSURER(S) AFFORDING COVERAGE</th> <th>NAIC #</th> </tr> </thead> <tbody> <tr> <td>INSURER A: Trumbull Insurance Company</td> <td>27120</td> </tr> <tr> <td>INSURER B: Hartford Fire Insurance Company</td> <td>19682</td> </tr> <tr> <td>INSURER C: Hartford Casualty Insurance Co</td> <td>29424</td> </tr> <tr> <td>INSURER D: Hartford</td> <td>100</td> </tr> <tr> <td>INSURER E:</td> <td></td> </tr> <tr> <td>INSURER F:</td> <td></td> </tr> </tbody> </table>		INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A: Trumbull Insurance Company	27120	INSURER B: Hartford Fire Insurance Company	19682	INSURER C: Hartford Casualty Insurance Co	29424	INSURER D: Hartford	100	INSURER E:		INSURER F:	
INSURER(S) AFFORDING COVERAGE	NAIC #																
INSURER A: Trumbull Insurance Company	27120																
INSURER B: Hartford Fire Insurance Company	19682																
INSURER C: Hartford Casualty Insurance Co	29424																
INSURER D: Hartford	100																
INSURER E:																	
INSURER F:																	

COVERAGES CERTIFICATE NUMBER: 12-13 Master REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY					EACH OCCURRENCE \$ 1,000,000
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY		01SBAAQ4699 (VT, MA)	1/1/2012	1/1/2013	DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR	X	01SBAAQ4702 (NY)			MED EXP (Any one person) \$ 10,000
			01SBAAQ4704 (CT, NH, PA)			PERSONAL & ADV INJURY \$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:					GENERAL AGGREGATE \$ 2,000,000
	<input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC					PRODUCTS - COMP/OP AGG \$ 2,000,000
B	AUTOMOBILE LIABILITY					COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000
	<input checked="" type="checkbox"/> ANY AUTO		01UECGF9204	1/1/2012	1/1/2013	BODILY INJURY (Per person) \$
	<input type="checkbox"/> ALL OWNED AUTOS	<input type="checkbox"/> SCHEDULED AUTOS				BODILY INJURY (Per accident) \$
	<input checked="" type="checkbox"/> HIRED AUTOS	<input checked="" type="checkbox"/> NON-OWNED AUTOS				PROPERTY DAMAGE (Per accident) \$
						Uninsured motorist combined \$
C	<input checked="" type="checkbox"/> UMBRELLA LIAB	<input checked="" type="checkbox"/> OCCUR				EACH OCCURRENCE \$ 10,000,000
	<input type="checkbox"/> EXCESS LIAB	<input type="checkbox"/> CLAIMS-MADE				AGGREGATE \$ 10,000,000
	<input type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$ 10,000		01XZUWZ3498	1/1/2012	1/1/2013	\$
D	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY					<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER
	<input type="checkbox"/> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	N/A	01WBCPT5691	1/1/2012	1/1/2013	E.L. EACH ACCIDENT \$ 500,000
	<input type="checkbox"/> If yes, describe under DESCRIPTION OF OPERATIONS below					E.L. DISEASE - EA EMPLOYEE \$ 500,000
						E.L. DISEASE - POLICY LIMIT \$ 500,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Project: Bow - Concord, 13742A

New Hampshire Department of Transportation shall be named as additional insured on the General Liability policy.

CERTIFICATE HOLDER

CANCELLATION

New Hampshire Department of Transportation PO Box 483 Concord, NH 03302-0483	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE Debbie Blanchard/LORI <i>Deborah K Blanchard</i>
---	---



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

5/22/2012

PRODUCER (201)262-1200 FAX: (201)262-7810
 Fenner & Esler
 467 Kinderkamack Road
 P. O. Box 60
 Oradell NJ 07649-0060

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 POLICIES BELOW.

INSURED
 McFarland-Johnson, Inc.
 49 Court Street, Metrocenter
 PO Box 1980
 Binghamton NY 13902-1980

INSURERS AFFORDING COVERAGE	NAIC #
INSURER A: OneBeacon Insurance Company	21970
INSURER B:	
INSURER C:	
INSURER D:	
INSURER E:	

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR ADD'L LTR	INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YYYY)	POLICY EXPIRATION DATE (MM/DD/YYYY)	LIMITS
		GENERAL LIABILITY <input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC				EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COM/OP AGG \$
		AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIREO AUTOS <input type="checkbox"/> NON-OWNED AUTOS				COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
		GARAGE LIABILITY <input type="checkbox"/> ANY AUTO				AUTO ONLY - EA ACCIDENT \$ OTHER THAN EA ACC \$ AUTO ONLY: AGG \$
		EXCESS / UMBRELLA LIABILITY <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> DEDUCTIBLE <input type="checkbox"/> RETENTION \$				EACH OCCURRENCE \$ AGGREGATE \$ \$ \$
		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) if yes, describe under SPECIAL PROVISIONS below				<input type="checkbox"/> Y <input type="checkbox"/> N WC STATU-TORY LIMITS <input type="checkbox"/> OTH-ER <input type="checkbox"/> E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$
A		OTHER Professional Liability	DPL-0764-11 DPL-0764-12 Retro Date: 1/1/1946	6/15/2011 6/15/2012	6/15/2012 6/15/2013	Per Claim Limit \$5,000,000 Aggregate Limit \$5,000,000 Deductible per claim \$50,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

RE: for Bow-Concord 13742A

CERTIFICATE HOLDER

New Hampshire Department
 of Transportation
 P.O. Box 483
 Concord, NH 03302-0483

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

Timothy Esler/MICHEL

TABLE OF CONTENTS

PREAMBLE

ARTICLE I - DESCRIPTION OF PROFESSIONAL SERVICES TO BE RENDERED2

- A. LOCATION AND DESCRIPTION OF PROJECT2
- B. SCOPE OF WORK (GENERAL).....2
- C. SCOPE OF WORK (GEOTECHNICAL).....3
- D. SCOPE OF WORK (ENVIRONMENTAL).....3
- E. SCOPE OF WORK (FINAL DESIGN)3
- F. MATERIAL FURNISHED BY THE DEPARTMENT OF TRANSPORTATION7
- G. WORK SCHEDULE AND PROGRESS REPORTS.....10
- H. SUBMISSION OF REPORTS, PLANS AND DOCUMENTS10
 - 1. ROADWAY DESIGN SUBMISSIONS12
 - a. Pre-Preliminary Plans - Roadway12
 - b. Preliminary Plans - Roadway.....12
 - c. Slope and Drainage Plans - Roadway14
 - d. Utility Plans.....15
 - e. Preliminary PS&E - Roadway.....16
 - f. PS&E - Roadway17
 - g. Contract Plans (Mylars) and Consultant Documents17
 - 2. BRIDGE DESIGN SUBMISSIONS18
 - a. Rehabilitation Study.....19
 - b. Boring Layout19
 - c. Preliminary Plans - Bridge19
 - d. Preliminary PS&E - Bridge.....20
 - e. PS&E - Bridge.....20
 - f. Contract Plans (Mylars)20
 - 3. RIGHT-OF-WAY PLANS.....20
- I. SCOPE OF WORK (CONSTRUCTION SERVICES).....21
- J. DATE OF COMPLETION21

ARTICLE II - COMPENSATION OF CONSULTANT FOR LUMP SUM AGREEMENTS.....22

- A. GENERAL FEE22
- B. ADDITIONAL FEE FOR REVISIONS OR ADDITIONAL SERVICES.....22
- C. ADDITIONAL FEE FOR EXTENSION OF TIME23
- D. SCHEDULE OF PAYMENTS23

ARTICLE III - GENERAL PROVISIONS25

- A. HEARINGS, ETC.25
- B. CONTRACT PROPOSALS25

ARTICLE IV - STANDARD PROVISIONS26

- A. STANDARD SPECIFICATIONS.....26
- B. REVIEW BY STATE - CONFERENCES - INSPECTIONS26
- C. EXTENT OF CONTRACT.....26
 - 1. Contingent Nature of Agreement.....26
 - 2. Termination.....27
- D. REVISIONS TO REPORTS, PLANS OR DOCUMENTS28
- E. ADDITIONAL SERVICES29

F.	OWNERSHIP OF PLANS	29
G.	SUBLETTING	30
H.	GENERAL COMPLIANCE WITH LAWS, ETC.	30
I.	BROKERAGE.....	30
J.	CONTRACTUAL RELATIONS	31
	1. Independent Contractor.....	31
	2. Claims and Indemnification.....	31
	3. Insurance	32
	4. No Third-Party Rights.....	33
	5. Construction of Agreement.....	33
K.	AGREEMENT MODIFICATION	33
L.	EXTENSION OF COMPLETION DATE(S)	33
M.	TITLE VI (NONDISCRIMINATION OF FEDERALLY-ASSISTED PROGRAMS) COMPLIANCE	34
N.	DISADVANTAGED BUSINESS ENTERPRISE POLICY AGREEMENT REQUIREMENTS.....	34
	1. Policy	34
	2. Disadvantaged Business Enterprise (DBE) Obligation	34
	3. Sanctions for Non-Compliance.....	34
O.	DOCUMENTATION.....	34
P.	CLEAN AIR AND WATER ACTS.....	34

ATTACHMENTS

- I. CERTIFICATION WITH REGARD TO THE PERFORMANCE OF PREVIOUS CONTRACTS OR SUBCONTRACTS, ETC.
2. CONSULTANT DISCLOSURE STATEMENT FOR PREPARATION OF ENVIRONMENTAL EVALUATIONS
3. CERTIFICATION OF CONSULTANT/SUBCONSULTANT
4. CERTIFICATION OF STATE DEPARTMENT OF TRANSPORTATION
5. CERTIFICATION FOR FEDERAL-AID CONTRACTS EXCEEDING \$100,000 IN FEDERAL FUNDS
6. SEAL-AND-SIGNATURE PAGE

**AGREEMENT
FOR PROFESSIONAL SERVICES**

PREAMBLE

THIS AGREEMENT made this 20 day of May in the year 2008 by and between the STATE OF NEW HAMPSHIRE, hereinafter referred to as the STATE, acting by and through its COMMISSIONER OF THE DEPARTMENT OF TRANSPORTATION, hereinafter referred to as the COMMISSIONER, acting under Chapter 228 of the Revised Statutes Annotated, and McFarland-Johnson, Incorporated, with principal place of business at 53 Regional Drive, in the City of Concord, State of New Hampshire, and 49 Court Street, Metrocenter, in the City of Binghamton, State of New York, hereinafter referred to as the CONSULTANT, witnesses that:

The Department of Transportation, State of New Hampshire, hereinafter referred to as the DEPARTMENT, proposes to rehabilitate four red-listed bridges along the Interstate 93 (I-93) corridor in Bow and Concord. These are the two I-93 Bridges over Interstate 89 (Bridge Nos. 135/160 and 136/160), the NH Route 3A Bridge over I-93 at Exit 12 (Bridge No. 203/087), and the I-93 Bridge over Loudon Road at Exit 14 (Bridge No. 163/106).

The DEPARTMENT intends to have prepared for said project rehabilitation studies, preliminary design, final design, contract plans, specifications, special provisions, estimates of quantities and costs. These services are outlined in the CONSULTANT'S Detailed Scope of Services revised April 3, 2008 and fee proposal dated April 3, 2008.

This AGREEMENT becomes effective upon approval by the Governor and Council.

ARTICLE I

ARTICLE I - DESCRIPTION OF PROFESSIONAL SERVICES TO BE RENDERED

NOW THEREFORE, in consideration of the undertakings of the parties hereinafter set forth, the DEPARTMENT hereby engages the CONSULTANT, who agrees to render services to the DEPARTMENT that shall include, but not be restricted to, the following items, in accordance with conditions and terms hereinafter set forth:

A. LOCATION AND DESCRIPTION OF PROJECT

This project involves the engineering effort to prepare rehabilitation studies recommending the level of rehabilitation for four red-listed bridges along the Interstate 93 (I-93) corridor in Bow and Concord. These are the two I-93 Bridges over Interstate 89 (Bridge Nos. 135/160 and 136/160), the NH Route 3A Bridge over I-93 at Exit 12 (Bridge No. 203/087), and the I-93 Bridge over Loudon Road at Exit 14 (Bridge No. 163/106). Also included in this project is the final design and contract document preparation for the complete deck replacement for the bridge at Exit 14, as well as highway and drainage design, traffic control, utility coordination, and environmental documentation in support of the bridge rehabilitation. The final design for the rehabilitation of the three remaining bridges will require an amendment to this AGREEMENT after completion and acceptance of the Rehabilitation Study. The scope and fee for this work will be negotiated by the CONSULTANT and the DEPARTMENT, in accordance with Article II, Section B and Article IV, Section E.

B. SCOPE OF WORK (GENERAL)

The scope of the work involves the preliminary and final design and preparation of contract plans, specifications, and estimates for the layout described above. The CONSULTANT shall utilize existing mapping and as built bridge plans supplemented by ground survey to be done by the DEPARTMENT as required to develop the final design and contract plans.

The CONSULTANT shall develop the traffic assignments for the construction year, including hourly volumes useful in the design of traffic control plans. The CONSULTANT shall obtain existing traffic field counts in the areas requiring traffic analyses. The CONSULTANT shall be responsible for the development of temporary signal plans for the construction year. Designs shall consider temporary and permanent

ARTICLE I

erosion-control measures, traffic control measures, utility coordination, drainage, treatments to minimize environmental impacts, highway signage and lighting. The development of the contract plans shall be accomplished to allow separate phased construction contracts for each bridge site to be administered by the DEPARTMENT. The CONSULTANT shall also incorporate improvements necessitated by development that may take place on properties adjacent to the highways. Coordination may be required between the DEPARTMENT and the Town of Bow and the City of Concord. The CONSULTANT shall be prepared to support such efforts as required. Responsibilities of the CONSULTANT team shall include attendance at meetings, preparation of minutes to reflect meeting commitments and preparation of illustrative plans and exhibits as defined in the CONSULTANT'S Detailed Scope of Services.

C. SCOPE OF WORK (GEOTECHNICAL)

(None)

D. SCOPE OF WORK (ENVIRONMENTAL)

These services are defined in the CONSULTANT'S Detailed Scope of Services, revised April 3, 2008 and include evaluation of constraints based on existing sources of information verified with a field visit. The CONSULTANT shall document the existing resources, permit and approval requirements, and important resource considerations. A review of Sustainable Design principles and sustainability options will be documented for each bridge location. Temporary erosion control for the project shall be designed by others during construction of the project; however, this issue shall be addressed during final design should it affect the design, the area required and the construction of the project. No permanent erosion and sedimentation control and water-quality features are anticipated in this project. The CONSULTANT'S plans shall include all commitments made in the environmental documents to the extent practicable.

E. SCOPE OF WORK (FINAL DESIGN)

The scope of work proposed by this AGREEMENT includes:

1. The use of existing mapping by the CONSULTANT supplemented by updated ground survey provided by the DEPARTMENT.

ARTICLE I

The CONSULTANT shall develop plans at the scale of 1"=50', unless otherwise noted. The CONSULTANT shall be responsible for the incorporation of environmental resource mapping, utility information, right-of-way and property-line information, etc., all of which will be provided by the DEPARTMENT or as noted elsewhere in this document.

2. The preparation of complete designs, including all plans, specifications for work not included in the current specifications of the DEPARTMENT, computations, estimates and documents for the required submissions to the DEPARTMENT, the Federal Highway Administration and/or any other STATE or Federal agency that may be required.
3. The design and preparation of contract plans for construction of the roadway, structures, traffic control plans, construction phasing plans, drainage facilities, temporary and permanent traffic signals (including phasing, conduit, signal coordination, foundations, and other signalization issues), in accordance with the policy and procedures of the DEPARTMENT and the provisions of this AGREEMENT. The plans shall include all commitments made in the environmental documents to the extent practicable.
4. The incorporation of all permanent guide, warning and regulatory signs and permanent construction signing into the contract plans, including the quantity summary sheets. All signing on the plans shall be closely coordinated with the location of guardrail installations, slopes, utility locations (including street lights and underground utilities) and drainage-system locations to avoid conflicts and to determine which support system will be required to install the signs. The CONSULTANT will be responsible to identify all conflicts and to make necessary adjustments to highway signing.
5. The design and incorporation into the contract plans (including the quantity summary sheets) of all temporary guide and regulatory signs and permanent construction signing required for use with detours or construction staging. These signs and locations, including identifying the location of overhead sign structures, shall be shown on the Traffic Control Plans.
6. The design of all supporting members for utilities that traverse any bridge structure.

ARTICLE I

7. The incorporation of utility relocations, as designed by others into the contract plans. Municipal utility relocations (e.g., sewer and/or water), as provided by the DEPARTMENT, shall be included, as necessary, into the contract plans, summary sheets and estimate. Municipal utility relocation items, as incorporated into the contract plans, shall be kept separate from the highway and/or bridge items in the estimates submitted. The unit item numbers and unit prices to be used for the utility relocations shall be provided by the DEPARTMENT.

The engineering design shall take into consideration all factors affecting the cost of the construction, such as foundation problems, earthwork quantities, erosion and sedimentation control, water-quality-treatment issues, construction phasing and complexity, utilities affected, environmental, construction materials, etc. During all phases of design, the CONSULTANT shall make a continuous effort to identify and minimize impacts on existing and proposed utilities.

The CONSULTANT shall, when requested by the DEPARTMENT, render such assistance as required, including the preparation and explanation of sketches and plans for, or at, any meetings or conferences held by the DEPARTMENT. Meeting notes and conference memos shall be the responsibility of the CONSULTANT.

The CONSULTANT shall submit for review, as requested, progress prints (black line) showing grades, cross-sections, special details and general design. Paper prints shall be submitted upon request for soils studies, right-of-way use, evaluation of utility impacts, and other purposes. A mylar of the base plan in English units (1:600 scale) shall be provided by the CONSULTANT for abstracting purposes.

All horizontal alignment notes including traverse-line notes furnished by the DEPARTMENT shall be computed by the CONSULTANT to include coordinates.

Designs shall conform to the current standards, specifications, policies and guidelines enumerated in the Federal-Aid Policy Guide, Subchapter 6, Part 625, or to 23 Code of Federal Regulations, Part 625 and the DEPARTMENT'S Design Manual and Standard Plans for Road and Bridge Construction (2001), except as approved

ARTICLE I

Frequent visits to the site shall be made during the design to detect changed field conditions and, if required, additional surveys will be performed by the DEPARTMENT upon request. The DEPARTMENT will process additional survey requests to the extent necessary to ensure continuity between new and current detail model files. The CONSULTANT will be given these files and shall be responsible for the incorporation of these files into the current detail base plans and digital terrain models (DTM). The incorporation of additional survey information shall include all drafting, labeling, detailing and field-checking of the detail of all survey requests.

The CONSULTANT shall examine which elements of design, such as horizontal and vertical alignments, typical sections, traffic control, earthwork utilization, drainage pipes and structures, as well as soils suitability, might affect aerial and underground utilities. Any conflict between design elements and utilities shall be identified and brought to the attention of the DEPARTMENT. A special effort shall be made by the CONSULTANT to modify drainage features in order to avoid conflicts with underground utilities.

All plotting, drafting and calculations performed by the CONSULTANT shall be independently checked by members of the CONSULTANT'S staff other than those who performed the original work. The work of each stage submission (including quantity estimates) shall have been appropriately checked. The PS&E submission and final mylars shall have had complete final and "three-way" checking.

The CONSULTANT shall verify all computations and design calculations. The CONSULTANT shall furnish two (2) permanent, legible copies of the design calculations, suitably bound, and when directed, all study plans, work plans, alternate studies, and estimates indexed in accordance with DEPARTMENT procedures.

The CONSULTANT'S Licensed Professional Engineer stamp for the State of New Hampshire shall appear on the construction plans, reports and any other documents that will be submitted to the DEPARTMENT. Stamps shall be those of the professional engineers who prepared them or under whose direct supervisory control they were prepared.

ARTICLE I

F. MATERIAL FURNISHED BY THE DEPARTMENT OF TRANSPORTATION

The DEPARTMENT will furnish the following data to the CONSULTANT:

1. Electronic files in English units of the following information in accordance with the DEPARTMENT'S CAD/D Procedures and Requirements, for incorporation into the plans by the CONSULTANT.
 - a. All existing survey and baseline data on disk or tape, notes and note reductions in the format outlined in the DEPARTMENT'S CAD/D Procedures and Requirements. An electronic ground model will be provided, if available, along with all existing information that can be used to create a model (ASCII point file, SDR data files, etc.).
 - b. Electronic drawings in Microstation format of all additional surveys requested by any party during the design process. The data will be provided in a format indicated in Paragraph 1.a. above. The CONSULTANT shall be responsible for incorporation of this data into the ground-terrain model and the plans. This data will be provided in a format as indicated in paragraph 1.a. above. Upon completion, the CONSULTANT shall confirm that the survey is correct by conducting appropriate field inspections.
 - c. Any additional surveys of adjacent parcels, mitigation sites, wetland boundaries or other pertinent items deemed necessary and processed by the DEPARTMENT. Incorporation of this information into the ground-terrain model and plans shall be the responsibility of the CONSULTANT.
 - d. Electronic drawings in Microstation format, along with reproducible sheets, of roadway typical cross-sections and other detail sheets shall be provided, when available from the DEPARTMENT'S CAD/D library, upon request by the CONSULTANT, in accordance with the DEPARTMENT'S CAD/D Procedures and Requirements.
 - e. Electronic drawings in Microstation format of the existing underground utilities, if provided to the DEPARTMENT by the utility. The CONSULTANT shall be prepared to provide an electronic copy of preliminary base plans to the DEPARTMENT for use by the utilities. The

ARTICLE I

CONSULTANT shall be responsible for the incorporation and manipulation of this information (either in paper or electronic format) into the plans, in accordance with the DEPARTMENT'S CAD/D Procedures and Requirements.

- f. Prints of any information outlined in Article I.F.1.a. thru e. above, both existing and proposed, when available, for verification by the CONSULTANT.
2. Prints of any additional information (e.g., abstracting, utilities, etc.) for the CONSULTANT to incorporate into the plans, in accordance with the DEPARTMENT'S CAD/D Procedures and Requirements.
3. Reproducible sheets of roadway typical cross-sections and other available detail sheets for inclusion in the contract plans.
4. Prints and data-exchange files of existing conditions not previously provided to the CONSULTANT. Reduction and incorporation of this material shall be the responsibility of the CONSULTANT.
5. Right-of-way data, property lines and parcel owners on electronic drawings in Microstation format. The data will be provided in a format indicated in Paragraph F.1.a. above.
6. All required permits. The CONSULTANT shall be responsible for plans and computations for impacted areas. These plans shall provide all necessary data, area hatching (according to DEPARTMENT standards) and detail so that these plans can be forwarded to the respective regulatory agencies as appropriate attachments for the permit applications.
7. Necessary traffic data and counts.
8. Proposal for bidding and Standard Specifications for Road and Bridge Construction, Standard Plans for Road and Bridge Construction, plus supplemental specifications and special provisions that the DEPARTMENT currently has.
9. Geotechnical investigations and recommendations.
10. The location of all existing utilities through direct contact with the various utility companies.
Following the determination by the CONSULTANT of all unavoidable conflicts between

ARTICLE I

existing utilities and the proposed construction, the DEPARTMENT will coordinate the necessary relocation of the conflicting utilities. The CONSULTANT shall be prepared to furnish CAD/D files in the current DEPARTMENT format to the DEPARTMENT for use in assisting the utilities' design.

11. The DEPARTMENT will serve on the team with the CONSULTANT in developing the detailed Traffic Control Plans. The CONSULTANT shall develop the initial conceptual Traffic Control Plan and construction phasing. The DEPARTMENT will assist the CONSULTANT in the final design of the Traffic Control Plans as it relates to complications with concurrent work, utilities and closures. The CONSULTANT shall complete the final design and the associated quantity calculations.
12. Conceptual design and layout of highway lighting (temporary and permanent) if deemed necessary. The CONSULTANT shall be responsible for incorporating the design and layout into the project documents and for recommending adjustments required to avoid conflicts.
13. The design of all permanent guide, warning and regulatory signs, including, but not limited to, the layout, sign size, text, item numbers, item descriptions, approximate location and quantities in the DEPARTMENT'S current format. Also, the DEPARTMENT will furnish a list of permanent construction signs and warning devices reflecting the general construction. The CONSULTANT shall be responsible for the incorporation of these signs into the contract plan(s) (including the quantity summary sheets).
14. The pavement-marking description, layout, item numbers and item descriptions will be provided to the CONSULTANT for inclusion into the plan set(s). The CONSULTANT shall be responsible for providing the DEPARTMENT with prints and, possibly, electronic CAD/D files, in the DEPARTMENT'S current format, of the pavement layout for the development of the pavement markings. The CONSULTANT shall be responsible for quantities and the development of appropriate summary tables within the plan sets.

ARTICLE I

15. Any updates of the DEPARTMENT-supplied CAD/D information will be released to the CONSULTANT throughout the duration of the AGREEMENT, as appropriate. The DEPARTMENT shall be held harmless from any and all loss, damage, expense or liability whatsoever resulting from the use of these programs and macros or translated information. The DEPARTMENT may supply the documentation for use with these programs and macros but shall not be responsible for any training in their use.

G. WORK SCHEDULE AND PROGRESS REPORTS

The CONSULTANT shall begin performance of the services designated in the Contract promptly upon receipt from the DEPARTMENT of a Notice to Proceed and the material to be furnished as herein described. The CONSULTANT shall complete these services without delay unless unable to do so for causes not under the CONSULTANT'S control.

The CONSULTANT'S sequence of operation and performance of the work under the terms of this AGREEMENT shall be varied at the direction of the DEPARTMENT to give priority in critical areas so that schedules and other STATE commitments, either present or future, can be met.

The CONSULTANT shall develop an acceptable reporting system capable of indicating project status on at least a monthly basis for all critical activities of the project. Monthly progress reports shall be submitted by the CONSULTANT to the Project Manager, giving the percentage of completion of the work required by this AGREEMENT. Separate progress reports for bridge design(s) shall be required. These monthly progress reports shall be received by the DEPARTMENT by the 10th day of each month. All correspondence shall include the STATE and Federal project numbers as well as the municipality's name.

H. SUBMISSION OF REPORTS, PLANS AND DOCUMENTS

During the prosecution of this AGREEMENT, the CONSULTANT shall prepare and submit to the DEPARTMENT separate submissions as described hereinafter.

The CONSULTANT, with each submission, shall submit a transmittal describing the "design issues" addressed in that submission. In addition, the transmittal shall include anticipated or outstanding issues

ARTICLE I

and the CONSULTANT'S recommendations. All issues shall be noted as to whether the CONSULTANT feels that the issue is within the scope of work described in Article I. Meetings between the CONSULTANT and the DEPARTMENT shall be held prior to submissions to discuss design issues and recommendations.

All plan drawings, including size of sheets, lettering, symbols and scale of said drawings, shall conform with the requirements and standards of the DEPARTMENT. Any and all CAD/D-related work completed during the course of this project shall be performed in conformance with the DEPARTMENT'S CAD/D Procedures and Requirements in effect at the time of execution of this AGREEMENT. Final construction plans and final right-of-way plans shall be submitted in waterproof ink on permanent, archival-quality, double-matte, polyester-base film (.004 in. thick) or silver-halide emulsion ("wash-off") reproduction on polyester-base film (.004 in. thick). Cross-section sheets shall be submitted on quality paper prints. Construction and right-of-way plans shall be submitted on 22 in. x 34 in. sheets.

In addition to the final reproducible plans being furnished as noted herein, the CONSULTANT shall provide electronic file copies of all highway and bridge project plan sheets with real State plane coordinates, including, but not limited to, final quantity sheets, typicals and detail sheets, general plans and profiles, traffic-signal sheets, cross-sections and right-of-way plans. In addition to these plan sheets, an electronic file of the entire project's final design shall be submitted in an "uncut" format showing all design features in a real State plane-coordinate system unrotated. These final electronic files shall be indexed with file name, description of the contents of the file and project sheet number applicable. All files shall be submitted in conformance with the DEPARTMENT'S CAD/D Procedures and Requirements in place at the date of execution of this agreement. Any plans (e.g., quantity summary sheets) produced from a spreadsheet (e.g., Excel, or equivalent) shall be submitted in ASCII file or format suitable for incorporation into Microsoft Office or the current DEPARTMENT software. The final Special Provisions(s) and other documents, as requested, shall be submitted in both electronic format (Microsoft Word-compatible) and hard copy. The CONSULTANT shall also be prepared to

ARTICLE I

submit separate electronic files of all alignments, bound locations and other project features, as requested, in a format acceptable to the DEPARTMENT, throughout the design contract, in conformance with the DEPARTMENT'S CAD/D Procedures and Requirements in place at the date of execution of this agreement. The CONSULTANT shall also provide a hard copy of all proposed alignments (25-foot minimum station interval and curve control points) with associated State plane coordinates (x, y, z).

The CONSULTANT shall complete a rehabilitation study for all four bridge locations. This study will evaluate the substructure repair options, traffic control, roadway safety, utility impacts, environmental constraints, and construction costs. The study will recommend options for further evaluation and development of contract plans. The bridge(s) approved by the DEPARTMENT for Final Design and Contract Plans will require the following submissions:

1. Roadway Design Submissions

The plan submissions for roadway design shall follow the procedures outlined below:

- a. Pre-Preliminary Plans – Roadway (Not included for this project.)
- b. Preliminary Plans - Roadway

Based on a complete review of the material furnished by the DEPARTMENT and developed and/or supplemented by the CONSULTANT, particularly in regard to the proposed design criteria, predicted traffic, preliminary soil data, conceptual traffic control and topography of the project area, the CONSULTANT shall prepare and submit to the DEPARTMENT five sets of plans showing:

- 1) The recommended horizontal and vertical alignment of all necessary roadway construction, including local roads.
- 2) All roadway cross-sections (50-foot intervals, except at 25-foot intervals in ledge areas) and drive cross-sections which shall be plotted with the top line of the template of the proposed roadway cross-sections shown. The CONSULTANT shall recognize that, typically, geotechnical information is not available at this time and, therefore, this

ARTICLE I

submission may need to be re-cut and reordered for subsequent submissions when soils/ledge information is made available.

- 3) Proposed intersection plans, including proposed lane use, with traffic assignments and circulation plans, pavement layouts and major control elements.
- 4) Proposed treatment of local roadways affected by the project, along with significant construction appurtenances and other design features.
- 5) The alignment (horizontal and vertical) of major detours or construction phases that will have significant implications for the project in the final design. The location and lane use of temporary signals if warranted. Critical cross-sections (with superelevations) shall be developed and labeled by phases to assist in the assessment of the conceptual traffic-control phasing.

The following issues shall also be considered in the development of the above-mentioned plans:

- 1) Traffic Control Plan and construction phasing.
- 2) Temporary erosion- and sedimentation-control measures.
- 3) Wetland impacts.
- 4) Right-of-way involvement.
- 5) Potential conflicts with major utilities.

This submission shall be supplemented with such conceptual drawings, illustrations and descriptive matter as are necessary to facilitate a comprehensive review of both the proposed design and the feasibility of construction, and the coordination with the design of bridges or other structures. This shall include profiles and cross-sections, particularly where clearance and setbacks may be issues. The CONSULTANT shall indicate on the plans all existing traffic volumes in support of the traffic control plans. Estimates for this submission shall be reasonably itemized to cover roadways, structures, drainage and other construction items.

Traffic control cost shall also be developed including any Smart Work Zone measures.

ARTICLE I

c. Slope and Drainage Plans - Roadway

The Slope and Drainage Plans submission shall consist of five sets of cut sheet plans showing slope lines, drainage-system details and drainage features, and proposed right-of-way lines, including drainage, slope and/or construction easements. The plans shall include typical sections, plan views, profiles, guardrail locations, and cross-sections with complete template plotted and appropriate references on the plans relative to drainage design to assist with the review of the drainage design and the backup drainage calculations. The submission shall be supplemented with a list of utility conflicts that could not be avoided during the design.

At this time, a field inspection shall be held with the DEPARTMENT and indicated design changes or corrections shall be made and incorporated into the plans for the Preliminary PS&E submission. Any indicated revisions to fit actual field conditions, including any horizontal and vertical alignment revisions found necessary during this field inspection and any resulting corrections to the right-of-way requirements, shall be made by the CONSULTANT.

Also, with the Slope and Drainage submission, the CONSULTANT shall submit the Traffic Control Plans in near-final form showing temporary slopes, lane uses and widths, overhead-sign structures, temporary traffic signals, temporary guardrail and barrier locations, temporary drainage, temporary easements, profiles, temporary drives, detour cross-sections and superelevations, etc. with backup calculations. Construction phasing shall be shown with narratives for each phase.

At this submission, a revised study estimate shall be prepared and submitted by the CONSULTANT based on the best information and design features shown in this submission relative to the anticipated construction including any detours or temporary widenings.

Following incorporation of the DEPARTMENT'S comments on the Slope and Drainage Submission, the CONSULTANT shall submit Wetland Impact plans showing permanent and

ARTICLE I

temporary impacts for each wetland for inclusion with the wetland permit applications. These areas shall be hatched according to the DEPARTMENT'S standards. Accompanying these plans, the CONSULTANT shall provide a tabulated impact summary showing wetland identification numbers, areas of fill or dredged volumes in the temporary and permanent conditions

d. Utility Plans

Following submission and review of the Slope and Drainage submission, the CONSULTANT shall incorporate DEPARTMENT comments into the design layout and assemble the plans into a cut-sheet format. The CONSULTANT shall then furnish 10 sets of cut-sheet plans (paper prints) of front sheet, plans, profiles and five sets of cross-sections for use by the Design Services Section. This submission plan set is intended to facilitate the identification of the scope of work required by various utilities to comply with the planned construction. The plans are intended to reflect the near-final design of drainage systems with all appurtenances, erosion- and sedimentation-control features, other structures, right-of-way lines (existing), curbing, pavement layout, traffic signals, slope limits, guardrail, final template plotted on cross-sections, detours and detour cross-sections, traffic-control issues with construction phasing, underdrain, drive locations, sidewalks, clearing-and-grubbing limits, fencing requirements, building demolition and lighting and signal conduit. Also, the plans shall reflect all existing detail, existing drainage and existing utilities. The intent is to have incorporated all comments from the Slope and Drainage submission along with design work that has progressed. All final-design notes may not be necessary, but the scope of construction shall be evident to the reviewing utilities. This plan set will not be reviewed and comments will not be given to the CONSULTANT for this submission by the DEPARTMENT. Copies of this plan set shall be forwarded to the Design Services Section to finalize the utility relocations, as required. The plans shall show the status of the design prior to preparation of the Preliminary PS&E submission.

ARTICLE I

e. Preliminary PS&E - Roadway

The Preliminary PS&E submission shall consist of three to five sets of plans (paper prints) of preliminary contract drawings, draft special provisions for items for which current specifications are not available from the DEPARTMENT, and a Preliminary PS&E estimate of quantities and costs. The plans shall include title sheet, typical sections, all plan sheets, profile sheets, curb- and pavement-marking-layout plans, traffic signal plans, complete traffic control plans, cross-section sheets and necessary detail sheets. Also, landscaping, seeding and grading plans shall be included, if required. Quantity Summary sheets shall be submitted. All item summary boxes for drainage, clearing-and-grubbing, earthwork, surfacing and select materials, curbing, guardrail, sidewalks, traffic signs, construction signs and warning devices, pavement markings, conduit and pull boxes, landscaping and slope protection, bounds, fencing, delineation and witness markers and other items that are nearly complete shall be shown and note line-entries completed. Rounding and totals are not required. Item summary boxes of expected work not listed above shall be included and shown without line-entries completed. In developing the plans to the Preliminary PS&E stage, the DEPARTMENT will require an estimate of the quantities, expected unit costs, and total costs prepared in the form and manner prescribed by the DEPARTMENT for the Preliminary PS&E submission. An electronic copy of the spreadsheet shall be submitted for each estimate in a format furnished by the DEPARTMENT. Roadway items shall be kept separate from bridge items. Two bound copies of the quantity calculations shall be furnished with the estimate. The plans shall reflect all comments from the Slope and Drainage Plans submission and issues that appear during final design. One bound copy of the drainage-computations book (as revised, based on Slope and Drainage comments) including temporary drainage computations for each contract shall be submitted with the Preliminary PS&E submission.

ARTICLE I

f. PS&E - Roadway

Upon approval in writing by the DEPARTMENT of the Preliminary PS&E submission, the CONSULTANT shall proceed to prepare and submit to the DEPARTMENT for approval the PS&E submission, which shall consist of three complete sets of paper prints of construction plans, one bound copy of the revised quantities book, and a PS&E estimate. Special Provisions shall be submitted in both electronic format (Microsoft Word-compatible) and hard copy for all items not in the Standard Specifications for Road and Bridge Construction of the STATE and for which a current special provision is not available.

g. Contract Plans (Mylars) and Consultant Documents

For each construction contract, upon approval of the foregoing in writing by the DEPARTMENT, the CONSULTANT shall make the final submission of contract plans, any final special provisions required and a final PS&E estimate of costs. These final contract plans and documents shall reflect all comments resulting from the PS&E review. The CONSULTANT shall be prepared to incorporate all comments, furnish drafting services for omissions found and generally assist the DEPARTMENT in finalizing the contract plans. If changes are requested to be made to the CONSULTANT'S plans by the DEPARTMENT, the CONSULTANT shall be prepared to update the corresponding electronic files and submit them to the DEPARTMENT. Final acceptance of the contract plans will be made in writing. The final contract plans submitted shall include one set of mylars and one set of paper prints. The paper set shall be submitted prior to the final mylars so that the DEPARTMENT can complete a final "three-way" check. Also, all CONSULTANT backup documents shall be resubmitted to reflect the final PS&E comments and final contract-plan conditions. The CONSULTANT shall also submit two bound copies of the final Drainage Calculations as well as two bound copies of the final Quantities Books.

ARTICLE I

The final contract plans shall include:

- (1) A front sheet.
- (2) Typical sections of improvement.
- (3) Summary-of-quantities sheets.
- (4) Plan and profile sheets.
- (5) Detail sheets and/or special sheets required.
- (6) Cross-section sheets (shall be submitted on quality paper prints).

Each of the plan sheets shall be labeled with its corresponding electronic file name.

2. Bridge Design Submissions

The studies, design and development of the contract documents shall be progressed separately for each of the three bridge sites (four bridges) as follows:

1. Bridge No. 163/106
2. Bridge No. 203/087
3. Bridge No.'s 135/160 & 136/160

The plan submissions for bridge structures shall follow, in general, the Instructions for Consulting Engineers Concerning Routine Procedures on Bridge Design Projects, prepared by the DEPARTMENT.

The content, completeness and scales for all drawings shall be as approved by the DEPARTMENT and shall be such as to accurately portray the placement and positioning of components and surfaces and the general appearance of the structural units. Large-scale details shall be employed as directed for congested areas or connections between components.

The CONSULTANT shall perform a load-rating analysis for each rehabilitated bridge using the AASHTO Strength Design Method (Load Factor Design), to be submitted on a form provided by the DEPARTMENT.

The Bridge phases for the development of the project are as follows:

Rehabilitation Study

ARTICLE I

Reproducible prints of these Preliminary Plans and estimated quantities and construction costs shall be submitted for approval by the DEPARTMENT prior to progressing to final design of the bridge.

d. Preliminary PS&E - Bridge

A formal Preliminary PS&E bridge submission will not be prepared due to the minimal reinforcement detailing required. However, updated quantities will be provided between the Preliminary Plans and PS&E submittals for project budgeting purposes. Estimates of quantities shall be prepared for all materials of construction and shall be summarized for each bridge.

e. PS&E - Bridge

Upon receipt of written approval of the Preliminary Plans, final design and preparation of contract plans shall be commenced. This final design shall incorporate revisions, if any, in the Preliminary Plans as approved by the DEPARTMENT. The plan and elevation, survey plan and profiles as submitted for the Preliminary Plans shall be refined as necessary and become a part of the final contract plans. The estimate of quantities shall be completed and tabulated and the reinforcing-bar schedules shall be completed.

Upon completion of these contract plans, copies of the plans shall be submitted to the DEPARTMENT for review and comment, the plans at this stage representing about 95% completion.

f. Contract Plans (Mylars)

Comments resulting from the DEPARTMENT'S review of the PS&E submission shall be incorporated into the design and contract plans.

Upon completion of these contract plans, they shall be submitted to the DEPARTMENT, the plans at this stage representing 100% completion.

3. Right-of-Way Plans

(Not included for this project.)

ARTICLE I

I. SCOPE OF WORK (CONSTRUCTION SERVICES)

If a contract for construction of the project, or part of it, is entered into within two years after completion by the CONSULTANT of the services outlined in Articles I, III and IV, the CONSULTANT shall, without additional compensation therefor, render services to the DEPARTMENT, including, but not restricted to, the following:

1. Construction

If and when required by the DEPARTMENT during the construction of the project, the CONSULTANT shall:

- a. At the CONSULTANT'S sole expense, correct and resolve errors and/or omissions within the contract plans and specifications found during construction.
- b. Render interpretations, as necessary, of the contract plans and specifications and submit recommendations for necessary modifications in either or both and, upon approval of recommendations by the DEPARTMENT, revise the contract plans and specifications to cover same and prepare other detailed drawings as may be needed to supplement the contract plans in order to permit the proper completion of the project. This work effort, if required, will be viewed as additional services, subject to an adjustment in the fee.

2. Shop Drawings

The CONSULTANT shall review, check and approve all working drawings prepared by others including the construction contractors or their subcontractors subject to the provisions of Section 105. Only that work designed by the DEPARTMENT will be excluded from this requirement.

J. DATE OF COMPLETION

The date of completion for the design services rendered under this AGREEMENT shall be June 30, 2010. Completion of construction services shall be in accordance with Article I-I. - Construction Services.

*Notice To Proceed 6-25-08
Completion Date: 6-30-10
12-31-11*

ARTICLE II

ARTICLE II - COMPENSATION OF CONSULTANT FOR LUMP SUM AGREEMENTS

A. GENERAL FEE

In consideration of the terms and obligations of this AGREEMENT, the STATE, through the DEPARTMENT, hereby agrees to pay and the CONSULTANT agrees to accept as full compensation for all services rendered to the satisfaction of the DEPARTMENT under this AGREEMENT, except as otherwise herein provided, a total lump sum of \$393,255.00, apportioned as follows:

Bridge No. 163/106 (Rehabilitation Study and Final Design):	<i>223,792.76</i>	\$266,388.00
Bridge No. 203/087 (Rehabilitation Study Only):	<i>Exit 14</i>	\$62,370.00 ✓
Bridge No. 135/160 & 136/160 (Rehabilitation Study Only):	<i>Exit 12</i>	\$64,497.00 ✓
<i>Add *</i>	<i>I-89</i>	
<i>* Bridge No. 135/160/136/160 (Final Design)</i>	<i>Contract Total:</i>	<i>\$393,255.00 1,336,076.51</i>
<i>* Bridge No. 136/131 (Design for P&I Report)</i>		<i>\$82,922.32</i>
<i>* Independent Technology Consulting LLC</i>		<i>\$15,696.63</i>
		<i>\$26,797.30</i>

Said total lump sum shall be considered full compensation for the work described in this AGREEMENT.

This total sum may be exceeded only when there is a substantial change in the scope or character of the work and by prior negotiation of a supplemental AGREEMENT. Any additional fee for revisions or other services shall be as specified in Sections B and C below. Substantial reductions in the scope or character of work, which may become desirable or necessary as the work progresses, may require a reduction in the total lump sum through negotiation.

The CONSULTANT shall maintain adequate cost records for all work performed under this AGREEMENT. All records and other evidence pertaining to cost incurred shall be made available at all reasonable times during the contract period and for three (3) years from the date of final voucher payment and closure of all pending matters for examination by the STATE, and copies thereof shall be furnished if requested.

B. ADDITIONAL FEE FOR REVISIONS OR ADDITIONAL SERVICES

If the CONSULTANT performs services for revisions of the plans or other services under the provisions of Article IV, Section D, or the first paragraph of Article IV, Section E, and depending upon how well the scope of work can be defined, it shall be paid as its total fee for such services either the

ARTICLE II

actual cost plus fixed fee for profit and other nonreimbursed costs or a lump sum fee negotiated by the CONSULTANT and the DEPARTMENT. Form and fee of such payment shall be determined prior to performance of such services.

If the CONSULTANT performs additional design services under the provisions of the second paragraph of Article IV, Section E, it shall be paid as its total fee for such services a lump sum fee negotiated by the CONSULTANT and the DEPARTMENT.

C. ADDITIONAL FEE FOR EXTENSION OF TIME

Should circumstances beyond the control of the CONSULTANT require extension of the time of completion more than one (1) year, the lump sum fee may be renegotiated.

D. SCHEDULE OF PAYMENTS

Payments on account for the fee for services rendered under this AGREEMENT shall be made as follows:

1. Monthly payments on account may be made upon written request of the CONSULTANT, based on satisfactory evidence of actual completion of work performed at the time of the payment, except that the total of such payments shall not exceed the percentages enumerated below at the indicated stages.
 - a. An amount equal to 45% of one or more of the total number of proposed construction contract's proportional part/parts of the lump-sum fee stipulated under Article II, Section A (less previous payments), until the Rehabilitation Study is approved. An individual contract's proportional part of the total fee shall be determined by the ratio of the estimated cost of the individual contract to the estimated cost of the total contracts, based on the CONSULTANT'S latest approved estimates.
 - b. An amount equal to 70% of one or more of the proposed construction contract's proportional part/parts of the lump-sum fee stipulated under Article II, Section A (less previous payments), until the Slope and Drainage Submission(s) therefor is approved.

ARTICLE II

- c. An amount equal to 80% of one or more of the proposed construction contract's proportional part/parts of the lump-sum fee stipulated under Article II, Section A (less previous payments), until the Preliminary PS&E Submission(s) therefor is approved.
 - d. An amount equal to 97% of one or more of the proposed construction contract's proportional part/parts of the lump-sum fee stipulated under Article II, Section A (less previous payments), until the PS&E Submission therefor is approved.
 - e. The lump-sum fee for construction services shall be paid as a percentage of completion as the construction services work progresses. If these services are not required, no payment shall be made for this item.
2. Payments on account of additional fees for revisions or additional services specified in Section B above shall be made as due upon receipt by the DEPARTMENT from the CONSULTANT of its bill, with the required substantiating data.

ARTICLE III

ARTICLE III - GENERAL PROVISIONS

A. HEARINGS, ETC.

The DEPARTMENT will make all arrangements for and hold all necessary hearings in connection with the project, including recording and filing of surveys and plats, enter into all necessary agreements with railroads, public utilities, municipalities, agencies of the Federal Government or others, and make orders of takings and financial settlements with owners of properties affected.

B. CONTRACT PROPOSALS

After the CONSULTANT has furnished to the DEPARTMENT contract drawings, special provisions, specifications, and estimate of quantities and unit cost by items, the DEPARTMENT will prepare the documents for receipt of proposals from construction contractors and for execution of a construction contract or contracts.

ARTICLE IV

ARTICLE IV - STANDARD PROVISIONS

A. STANDARD SPECIFICATIONS

The CONSULTANT agrees to follow the provisions of the current Design Manuals of the DEPARTMENT, Standard Specifications for Road and Bridge Construction and Standard Plans for Road and Bridge Construction of the DEPARTMENT and the current Standard Specifications for Highway Bridges of the American Association of State Highway and Transportation Officials and amendments thereto, or other professional codes or standards applicable to the services to be performed under this AGREEMENT. When a publication (including interim publications) is specified, it refers to the most recent date of issue in effect at the time of execution of this AGREEMENT.

B. REVIEW BY STATE – CONFERENCES - INSPECTIONS

It is mutually agreed that all portions of the work covered by this AGREEMENT shall be subject to the inspection of duly-authorized representatives of the STATE at such time or times as the STATE deems appropriate.

The location of the office where the work will be available for inspection by STATE and Federal Highway Administration representatives is 53 Regional Drive, Concord, NH.

It is further mutually agreed that any party, including the duly authorized representatives of the STATE may request and obtain conferences, visits to the site, and inspection of the work at any reasonable time.

C. EXTENT OF CONTRACT

1. Contingent Nature of AGREEMENT

Notwithstanding anything in this AGREEMENT to the contrary, all obligations of the STATE, including, without limitation, the continuance of payments, are contingent upon the availability and continued appropriation of funds, and in no event shall the STATE be liable for any payments in excess of such available appropriated funds. In the event of a reduction or termination of those funds, the STATE shall have the right to terminate this AGREEMENT.

ARTICLE IV

2. Termination

The DEPARTMENT shall have the right at any time, and for any cause, to terminate the work required of the CONSULTANT by this AGREEMENT, by written notice of such termination provided to the CONSULTANT by the DEPARTMENT, and, in the event of such a termination of this AGREEMENT, without fault on the part of the CONSULTANT, the CONSULTANT shall be entitled to compensation for all work theretofore satisfactorily performed, pursuant to this AGREEMENT, such compensation to be fixed, insofar as possible based upon the work performed prior to termination. If no contract or contracts for construction of the project contemplated by this AGREEMENT is entered into within two (2) years after satisfactory completion of the services outlined in Article I, the rendering of further services as required by Article I-I hereof shall be waived, and, in such event, all of the services contemplated by this AGREEMENT shall be deemed to have been completed. It shall be a breach of this AGREEMENT if the CONSULTANT shall fail to render timely the services required under this AGREEMENT, in accordance with sound professional principles and practices, to the reasonable satisfaction of the DEPARTMENT, or shall be in such financial condition as to be unable to pay its just debts as they accrue, or shall make an assignment for the benefit of creditors, or shall be involved in any proceeding, voluntary or involuntary, resulting in the appointment of a receiver or trustee over its affairs, or shall become dissolved for any cause. In the event of the happening of any one or more of the foregoing contingencies or upon the substantial breach of any other provisions of this AGREEMENT by the CONSULTANT, its officers, agents, employees and subconsultants, the DEPARTMENT shall have the absolute right and option to terminate this AGREEMENT forthwith, and, in addition, may have and maintain any legal or equitable remedy against the CONSULTANT for its loss and damages resulting from such breach or breaches of this AGREEMENT; provided, however, that as to all plans, drawings, tracings, estimates, specifications, reports, proposals, sketches, diagrams and calculations, together with all material and data theretofore furnished to the DEPARTMENT by the CONSULTANT of a satisfactory

ARTICLE IV

nature in accordance with this AGREEMENT, which plans, drawings, tracings, etc. are of use to the DEPARTMENT, the CONSULTANT shall be entitled to a credit, based on the contract rate for the work so performed in a satisfactory manner and of use and benefit to the DEPARTMENT.

D. REVISIONS TO REPORTS, PLANS OR DOCUMENTS

The CONSULTANT shall perform such additional work as may be necessary to correct errors in the work required under the AGREEMENT, caused by errors and omissions by the CONSULTANT, without undue delays and without additional cost to the DEPARTMENT.

Furthermore, prior to final approval of plans, specifications, estimates, reports or documents by the DEPARTMENT, the CONSULTANT shall make such revisions of them as directed by the DEPARTMENT, without additional compensation therefore except as hereinafter provided:

1. If, after its written approval thereof, the DEPARTMENT shall require changes to the plans or documents that revise engineering or other factors specifically approved, thereby necessitating revisions of the contract plans or documents; or,
2. When applicable, if, during the term of this AGREEMENT, a revision of the alignment is ordered to the extent that the revised alignment will lie completely or partially outside the limit of the survey data plotted by the CONSULTANT (this does not apply to those adjustments and refinements to the alignments anticipated under the scope of work); or,
3. If, after approval by the DEPARTMENT of the final contract plans or documents, the CONSULTANT shall be ordered in writing by the DEPARTMENT to make revisions or to perform services other than those necessary in order to adapt said plans, reports or documents to conditions observed during field inspections and encountered during construction;

the CONSULTANT shall be entitled to compensation therefore in accordance with Article II, Section B, such compensation to be in addition to the fee specified in Article II, Section A, for its original work on the plans, reports or documents.

ARTICLE IV

E. ADDITIONAL SERVICES

If, during the term of this AGREEMENT, additional professional services are required due to a revision in the limits of the project, or it becomes necessary to perform services not anticipated during negotiation, the DEPARTMENT may, in writing, order the CONSULTANT to perform such services, and the CONSULTANT shall be paid a fee in accordance with the provisions of Article II, Section B.

If, during the term of this AGREEMENT, additional professional services are performed by the CONSULTANT due to the fact that data furnished by the DEPARTMENT are not usable or applicable, the STATE will, upon written approval of the DEPARTMENT, reimburse the CONSULTANT for such additional design services in accordance with the provisions of Article II, Section B.

If additional services are performed by the CONSULTANT through its own acts which are not usable or applicable to this project, the cost of such additional services shall not be reimbursable.

F. OWNERSHIP OF PLANS

All data, plans, drawings, tracings, estimates, specifications, proposals, sketches, diagrams and calculations, reports or other documents collected, prepared or undertaken either manually or electronically by the CONSULTANT under the provisions of this AGREEMENT, immediately shall become the property of the DEPARTMENT and, when completed, shall bear the CONSULTANT'S endorsement. The CONSULTANT shall surrender to the DEPARTMENT, upon demand at any time, or submit to its inspection any data, plan, drawing, tracing, estimate, specification, proposal, sketch, diagram, calculation, report or document which shall have been collected, prepared or undertaken by the CONSULTANT pursuant to this AGREEMENT, or shall have been hitherto furnished to the CONSULTANT by the DEPARTMENT. The CONSULTANT shall have the right, with the written approval of the DEPARTMENT, to use any of the data prepared by it and hitherto delivered to the DEPARTMENT at any later stage of the project contemplated by this AGREEMENT.

ARTICLE IV

G. SUBLETTING

The CONSULTANT shall not sublet, assign or transfer any part of the CONSULTANT'S services or obligations under this AGREEMENT without the prior approval and written consent of the DEPARTMENT.

All subcontracts shall be in writing and those exceeding \$10,000 shall contain all provisions of this AGREEMENT, including "Certification of CONSULTANT/Subconsultant." For subconsultants working on wetland evaluations, mapping, noise studies and air-quality studies, the minimum limits of their professional liability (errors and omissions) insurance coverage shall be not less than \$1,500,000 in the aggregate. If coverage is claims made, the period to report claims shall extend for not less than three years from the date of substantial completion of the construction contract. No retention (deductible) shall be more than \$25,000. A copy of each subcontract shall be submitted for the DEPARTMENT'S files.

H. GENERAL COMPLIANCE WITH LAWS, ETC.

The CONSULTANT shall comply with all Federal, STATE and local laws and ordinances applicable to any of the work involved in this AGREEMENT and shall conform to the requirements and standards of STATE, municipal, railroad and utility agencies whose facilities and services may be affected by the construction of this project. The services shall be performed so as to cause minimum interruption to said facilities and services.

I. BROKERAGE

The CONSULTANT warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the CONSULTANT, to solicit or secure this Contract, and that it has not paid or agreed to pay any company or person, other than a bona fide employee working solely for the CONSULTANT, any fee, commission, percentage, brokerage fee, gift or any other consideration, contingent upon or resulting from the award or making of this Contract. For breach or violation of this warranty, the STATE shall have the right to annul this Contract without liability or, at its discretion, to

ARTICLE IV

deduct from the contract price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gift or contingent fee.

J. CONTRACTUAL RELATIONS

1. Independent Contractor

The CONSULTANT agrees that its relation to the STATE is as an independent contractor and not as an agent or employee of the STATE.

2. Claims and Indemnification

a. Non-Professional Liability Indemnification

The CONSULTANT agrees to defend, indemnify and hold harmless the STATE and all of its officers, agents and employees from and against any and all claims, liabilities or suits arising from (or which may be claimed to arise from) any (i) acts or omissions of the CONSULTANT or its subconsultants in the performance of this AGREEMENT allegedly resulting in property damage or bodily injury and/or (ii) misconduct or wrongdoing of the CONSULTANT or its subconsultants in the performance of this AGREEMENT.

b. Professional Liability Indemnification

The CONSULTANT agrees to defend, indemnify and hold harmless the STATE and all of its officers, agents and employees from and against any and all claims, liabilities or suits arising from (or which may be claimed to arise from) any negligent acts or omissions of the CONSULTANT or its subconsultants in the performance of professional services covered by this AGREEMENT.

c. These covenants shall survive the termination of the AGREEMENT. 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 by the STATE.

ARTICLE IV

3. Insurance

a. Required Coverage

The CONSULTANT shall, at its sole expense, obtain and maintain in force the following insurance.

1. Commercial or comprehensive general liability insurance, including contractual coverage, for all claims of bodily injury, death or property damage, in policy amounts of not less than \$250,000 per occurrence and \$2,000,000 in the aggregate (STATE to be named as an additional insured); and
2. comprehensive automobile liability insurance covering all motor vehicles, including owned, hired, borrowed and non-owned vehicles, for all claims of bodily injury, death or property damage, in policy amounts of not less than \$500,000 combined single limit; and
3. professional liability (errors and omissions) insurance coverage of not less than \$2,000,000 in the aggregate. If coverage is claims made, the period to report claims shall extend for not less than three years from the date of substantial completion of the construction contract. No retention (deductible) shall be more than \$75,000; and
4. workers' compensation and employer's liability insurance as required by law.

b. Proof of Insurance

The policies described in paragraph (a) of this section and Section G shall be in the standard form employed in the STATE, issued by underwriters licensed or approved by the Department of Insurance of the STATE. Each policy shall contain a clause prohibiting cancellation or modifications of the policy earlier than 30 days, or 10 days in cases of non-payment of premium, after written notice thereof has been received by the STATE. The CONSULTANT shall provide to the STATE a certificate of insurance evidencing the required coverages, retention (deductible) and cancellation clause prior to submittal of the

ARTICLE IV

AGREEMENT to Governor and Council for approval and shall have a continuing duty to provide new certificates of insurance as the policies are amended or renewed.

4. No Third-Party Rights

It is not intended by any of the provisions of the AGREEMENT to make the public or any member thereof a third-party beneficiary of the AGREEMENT, or to authorize anyone not a party to this AGREEMENT to maintain a suit for personal injuries or property damage pursuant to the terms or provisions of this AGREEMENT. The duties, obligations and responsibilities of the parties to this AGREEMENT with respect to third parties shall remain as imposed by law. No portion of this AGREEMENT shall be understood to be a waiver of the STATE'S sovereign immunity.

5. Construction of AGREEMENT

This AGREEMENT is executed in a number of counterparts, each of which is an original and constitutes the entire AGREEMENT between the parties. This AGREEMENT shall be construed according to the laws of the STATE.

K. AGREEMENT MODIFICATION

The assignment of the CONSULTANT, generally established by the scope of work in this AGREEMENT, shall not be modified in any way without prior approval of the Governor and Council.

L. EXTENSION OF COMPLETION DATE(S)

If, during the course of the work, the CONSULTANT anticipates that it cannot comply with one or more of the completion dates specified in this AGREEMENT, it shall be the CONSULTANT'S responsibility to notify the DEPARTMENT in writing at least ninety (90) days prior to the completion date(s) in question. The CONSULTANT shall state the reasons that a completion date(s) cannot be met and request a revised date(s) for consideration by the DEPARTMENT.

ARTICLE IV

M. TITLE VI (NONDISCRIMINATION OF FEDERALLY-ASSISTED PROGRAMS) COMPLIANCE

(BLANK – Non-Federal Project)

N. DISADVANTAGED BUSINESS ENTERPRISE POLICY AGREEMENT REQUIREMENTS

(BLANK – Non-Federal Project)

O. DOCUMENTATION

The CONSULTANT shall document the results of the work to the satisfaction of the DEPARTMENT. This shall include preparation of progress reports, plans, specifications and estimates and similar evidences of attainment of objectives called for in this AGREEMENT.

P. CLEAN AIR AND WATER ACTS

If the amount of the AGREEMENT or subcontract thereunder exceeds \$100,000, the CONSULTANT or subconsultant shall comply with applicable standards, orders or requirements issued under Section 306 of the Federal Clean Air Act (43 U.S.C. 1857(h)), Section 508 of the Federal Clean Water Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR Part 15), which prohibit the use under non-exempt Federal contracts, grants or loans of facilities included on the EPA List of Violating Facilities. The CONSULTANT or subconsultant shall report violations to the FHWA and to the U. S. Environmental Protection Agency Assistant Administrator for Enforcement (EN-329).

**CERTIFICATION WITH REGARD TO THE PERFORMANCE OF
PREVIOUS CONTRACTS OR SUBCONTRACTS SUBJECT TO
THE EQUAL OPPORTUNITY CLAUSE AND THE FILING OF REQUIRED REPORTS**

The CONSULTANT , proposed subconsultant _____, hereby certifies that it has , has not _____, participated in a previous contract or subcontract subject to the equal opportunity clause, as required by Executive Order 11246 and that it has , has not _____, filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements.

McFarland-Johnson, Inc.
(Company)
By: [Signature]
Vice President
(Title)

Date: 5-20-08

Note: The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7(b)(1)), and must be submitted by consultants and proposed subconsultants only in connection with contracts and subcontracts which are subject to the equal opportunity clause. Contracts and subcontracts that are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5. (Generally, only contracts or subcontracts of \$10,000 or under are exempt.)

Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations.

Proposed prime consultants and subconsultants who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7(b)(1) prevents the award of contracts and subcontracts unless such consultant submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

(Revised: June, 1980) **NOTE: TO BE COMPLETED BY CONSULTANT WHEN SIGNING AGREEMENT.**

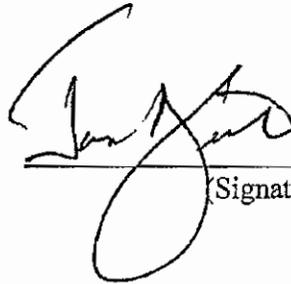
**CONSULTANT DISCLOSURE STATEMENT
FOR PREPARATION OF
ENVIRONMENTAL EVALUATIONS**

I hereby affirm that I have read and reviewed the Council on Environmental Quality (CEQ) regulation [40 CFR 1506.5(C)] and related guidance issued by CEQ and that pursuant thereto this firm has no financial or other interest in the outcome of this project.

I further hereby affirm that the information provided herein is true and correct and acknowledge that any knowingly false statement or false representation as to any material part contained herein may subject me to a fine and/or imprisonment, pursuant to pertinent provisions of the United States Code.

5-20-08

(Date)

A handwritten signature in black ink, appearing to be "John A. [unclear]", written over a horizontal line.

(Signature)

CERTIFICATION OF CONSULTANT/SUBCONSULTANT

I hereby certify that I am the Vice President and duly-authorized representative of the firm of McFarland-Johnson, Inc. and that neither I nor the above firm I here represent has:

- (a) employed or retained for a commission, percentage, brokerage, contingent fee, or other consideration, any firm or person (other than a bona fide employee working solely for me or the above CONSULTANT) to solicit or secure this Contract,
- (b) agreed, as an express or implied condition for obtaining this Contract, to employ or retain the services of any firm or person in connection with carrying out the Contract, or
- (c) paid, or agreed to pay, to any firm, organization or person (other than a bona fide employee working solely for me or the above CONSULTANT) any fee, contribution, donation or consideration of any kind for, or in connection with, procuring or carrying out the Contract:

I/WE do also, under penalty of perjury under the laws of the United States, certify that, except as noted below, the company or any person associated therewith in the capacity of (owner, partner, director, officer, principal investigator, project director, manager, auditor, or any position involving the administration of Federal funds): (a) is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any Federal agency; (b) has not been suspended, debarred, voluntarily excluded or determined ineligible by any Federal agency within the past three years; (c) does not have a proposed debarment pending; and (d) has not been indicted, convicted or had a civil judgment rendered against (it) by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past three years.

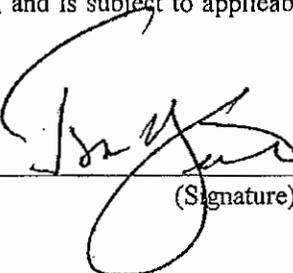
except as here expressly stated (if any):

Exceptions will not necessarily result in denial of award, but will be considered in determining bidder responsibility. For any exception noted, indicate below to whom it applies, the initiating agency, and dates of action. Providing false information may result in criminal prosecution or administrative sanctions.

I acknowledge that this certificate is to be furnished to the State Department of Transportation and the Federal Highway Administration, U. S. Department of Transportation, in connection with this Contract involving participation of Federal-aid highway funds, and is subject to applicable State and Federal laws, both criminal and civil.

5-20-08

(Date)



(Signature)

CERTIFICATION OF STATE DEPARTMENT OF TRANSPORTATION

William J. Cass, P.E.
Director of Project Development
NHDOT

I hereby certify that I am the _____ of the Department of Transportation of the State of New Hampshire, and the above consulting firm or its representatives has not been required, directly or indirectly, as an express or implied condition in connection with obtaining or carrying out this Contract, to:

- (a) employ or retain, or agree to employ or retain, any firm or person, or
- (b) pay, or agree to pay, to any firm, person, or organization, any fee, contribution, donation, or consideration of any kind:

except as here expressly stated (if any):

5/22/08

(Date)



(Signature)

**CERTIFICATION FOR FEDERAL-AID CONTRACTS
EXCEEDING \$100,000 IN FEDERAL FUNDS**

The prospective participant certifies, by signing and submitting this agreement, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower-tier subcontracts which exceed \$100,000 and that all such subrecipients shall certify and disclose accordingly.

IN WITNESS WHEREOF the parties hereto have executed this AGREEMENT on the day and year first above written.

(SEAL)

Consultant

WITNESS TO THE CONSULTANT

By: Leida M. Minchev
Administrative Assistant

Dated: 5/20/08

CONSULTANT

By: [Signature]
Vice President
(TITLE)

Dated: 5-20-08

Department of Transportation

WITNESS TO THE STATE OF NEW HAMPSHIRE

By: Michelle Brown

Dated: 5/22/08

THE STATE OF NEW HAMPSHIRE

By: William J. Cass, P.E.
Director of Project Development
NHDOT
[Signature]
For DOT COMMISSIONER

Dated: 5/22/08

Attorney General

This is to certify that the above AGREEMENT has been reviewed by this office and is approved as to form and execution.

Dated: 5/27/08

By: [Signature]
Assistant Attorney General

Secretary of State

This is to certify that the GOVERNOR AND COUNCIL on JUN 25 2008 approved this AGREEMENT.

Dated: JUN 25 2008

Attest: [Signature]
By: [Signature]
Secretary of State

DEPUTY SECRETARY OF STATE

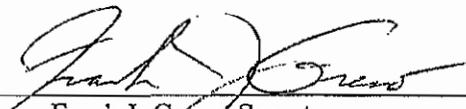
**CERTIFICATE OF SECRETARY
OF
McFARLAND-JOHNSON, INC.
ATTESTING TO THE ADOPTION OF BOARD RESOLUTION**

I, Frank J. Greco, Secretary of McFarland-Johnson, Inc., certify that on January 18, 2008, at a Meeting of the Board of Directors of McFarland-Johnson, Inc., the Directors, acting unanimously, adopted the following resolution:

RESOLVED, that the following elected Officers and employees of the Corporation are authorized to sign contracts in the name of, and on behalf of, the Corporation, in accordance with corporate policies and rules:

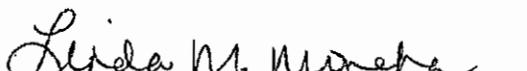
<u>Name</u>	<u>Office</u>
R. J. Brauer	- President/CEO – Engineering
J. M. Festa	- Vice President/Chief Engineer/ Binghamton Regional Office Manager
F. J. Greco	- Vice President/CFO/Secretary/Treasurer
R. W. Lambert	- Regional Vice President
F. D. Mock	- Regional Vice President
M. D. Long	- Concord Regional Office Manager
R. W. Dall	- Burlington Regional Office Manager
G. J. Giroux	- New London Regional Office Manager

I certify that as a result of the action of the Board of Directors, James M. Festa, Vice President/Chief Engineer of McFarland-Johnson, Inc., is fully authorized to enter into contracts, including Bow-Concord, 13742A, in the name of and on behalf of the Corporation for the rendering of services by the Corporation.


Frank J. Greco, Secretary

[CORPORATE SEAL]

SUBSCRIBED AND SWORN TO
this 20th day of May, 2008


Notary Public

LINDA M. MONAHAN
Notary Public, State of New York
No. 49687-47
Residing In Broome County
My commission expires 7/2/10

L:\LOO\MISC\FJG\002A

State of New Hampshire Department of State

CERTIFICATE

I, William M. Gardner, Secretary of State of the State of New Hampshire, do hereby certify that MCFARLAND-JOHNSON, INC., a(n) New York corporation, is authorized to transact business in New Hampshire and qualified on February 14, 1969. I further certify that all fees and annual reports required by the Secretary of State's office have been received.



In TESTIMONY WHEREOF, I hereto
set my hand and cause to be affixed
the Seal of the State of New Hampshire,
this 21st day of May, A.D. 2008

A handwritten signature in cursive script, appearing to read "William M. Gardner".

William M. Gardner
Secretary of State

ACORD CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
5/20/2008

PRODUCER (607) 754-3500, Fax (607) 754-9797
Robert J. Hanafin, Inc.
204 Washington Ave.
P. O. Box 509
Endicott NY 13760

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 POLICIES BELOW.

INSURED
McFarland-Johnson Inc.
49 Court Street
PO Box 1980
Binghamton NY 13901

INSURERS AFFORDING COVERAGE	NAIC #
INSURER A: The Hartford	
INSURER B:	
INSURER C:	
INSURER D:	
INSURER E:	

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR ADD'L LTR INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS
A	GENERAL LIABILITY	01SBAAQ4702 (NY)	01/01/2008	01/01/2009	EACH OCCURRENCE \$ 1,000,000
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY	01SBAAQ4699 (VT)	01/01/2008	01/01/2009	DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000
	<input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR	01SBAAQ4704 (CT, NH, PA)	01/01/2008	01/01/2009	MED EXP (Any one person) \$ 10,000
	GENL AGGREGATE LIMIT APPLIES PER:				PERSONAL & ADV INJURY \$ 1,000,000
	<input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input checked="" type="checkbox"/> LOC				GENERAL AGGREGATE \$ 2,000,000
					PRODUCTS - COM/OP AGG \$ 2,000,000
A	AUTOMOBILE LIABILITY	01UECGF9204	01/01/2008	01/01/2009	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000
	<input checked="" type="checkbox"/> ANY AUTO				BODILY INJURY (Per person) \$
	<input type="checkbox"/> ALL OWNED AUTOS				BODILY INJURY (Per accident) \$
	<input checked="" type="checkbox"/> HIRED AUTOS				PROPERTY DAMAGE (Per accident) \$
	<input checked="" type="checkbox"/> NON-OWNED AUTOS				
	GARAGE LIABILITY				AUTO ONLY - EA ACCIDENT \$
	<input type="checkbox"/> ANY AUTO				OTHER THAN EA ACC \$
					AUTO ONLY: AGG \$
A	EXCESS/UMBRELLA LIABILITY	01XHJWZ3498	01/01/2008	01/01/2009	EACH OCCURRENCE \$ 10,000,000
	<input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE				AGGREGATE \$ 10,000,000
	<input type="checkbox"/> DEDUCTIBLE				\$
	<input checked="" type="checkbox"/> RETENTION \$ 10,000				\$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY	01WBCPT5691	01/01/2008	01/01/2009	Y <input type="checkbox"/> NO STATUTORY LIMITS <input type="checkbox"/> OTHER
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED?				E.L. EACH ACCIDENT \$ 500,000
	If yes, describe under SPECIAL PROVISIONS below				E.L. DISEASE - EA EMPLOYEE \$ 500,000
	OTHER				E.L. DISEASE - POLICY LIMIT \$ 500,000

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/EXCLUSIONS ADDED BY ENDORSEMENT/SPECIAL PROVISIONS

Project: Bow - Concord, 13742A
New Hampshire Department of Transportation shall be named as additional insured on the General Liability policy.

CERTIFICATE HOLDER

New Hampshire
Department of Transportation
PO Box 483
Concord, NH 03302-0483

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE
Debbie Blanchard/KQ

Deborah K Blanchard

ACORD CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YY)
05/22/08

PRODUCER
Fenner & Esler Agency, Inc.
Box 60

1-201-262-1200

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 POLICIES BELOW.

Oradell, NJ 07649

INSURERS AFFORDING COVERAGE

INSURED
McFarland-Johnson, Inc.
att: Frank J. Greco
49 Court Street, Metrocenter
PO Box 1980
Binghamton, NY 13902-1980

INSURER A: St. Paul Fire & Marine Insurance Co.

INSURER B:

INSURER C:

INSURER D:

INSURER E:

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS
	GENERAL LIABILITY <input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC				EACH OCCURRENCE \$ FIRE DAMAGE (Any one fire) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS				COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	GARAGE LIABILITY <input type="checkbox"/> ANY AUTO				AUTO ONLY - EA ACCIDENT \$ OTHER THAN AUTO ONLY: EA ACC \$ AGG \$
	EXCESS LIABILITY <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> DEDUCTIBLE <input type="checkbox"/> RETENTION \$				EACH OCCURRENCE \$ AGGREGATE \$ \$ \$ \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY				WC STATU-TORY LIMITS <input type="checkbox"/> DTH-ER <input type="checkbox"/> E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$
A	OTHER Professional Liability	QP03800053	06/15/07	06/15/08	Per Claim \$ 2,000,000 Annual Aggregate \$ 4,000,000 \$

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/EXCLUSIONS ADDED BY ENDORSEMENT/SPECIAL PROVISIONS

Bow-Concord, 13742A
Deductible: \$50,000

CERTIFICATE HOLDER

ADDITIONAL INSURED; INSURER LETTER:

CANCELLATION

New Hampshire Department of Transportation

P. O. Box 483

Concord, NH 03302-0483

USA

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

ACORD 25-S (7/97) 01017413
8838764

© ACORD CORPORATION 1988

IMPORTANT

If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

DISCLAIMER

The Certificate of Insurance on the reverse side of this form does not constitute a contract between the issuing insurer(s), authorized representative or producer, and the certificate holder, nor does it affirmatively or negatively amend, extend or alter the coverage afforded by the policies listed thereon.



THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
Bureau of Highway Design

(ITEM NO. 302)



URGENT N. CAMPBELL, JR.
COMMISSIONER

JEFF BRILLHART, P.E.
ASSISTANT COMMISSIONER

May 19, 2008

His Excellency, Governor John H. Lynch
and the Honorable Council
State House
Concord, New Hampshire 03301

Requested Action

Authorize the Department of Transportation to enter into an Agreement with McFarland-Johnson, Incorporated, Concord, NH and Binghamton, NY, Vendor #23114, in the amount of \$393,255.00, for preliminary and final design for the rehabilitation for four red-listed bridges along the Interstate 93 corridor in Bow and Concord, effective upon Governor and Council approval, through June 30, 2010. 100% Turnpike Funds.

Funding is available in account, Turnpike Capital Program, as follows:

Table with 3 columns: Account Number (017-096-7507-090-0104), Program Name (Turnpike Capital Program), and Amount (FY 2009 \$393,255.00)

EXPLANATION

The Department requires professional engineering consulting services to prepare rehabilitation studies recommending preliminary concepts and the level of rehabilitation for four red-listed bridges along the Interstate 93 (I-93) corridor in Bow and Concord (NB and SB at I-89, Exit 12, Exit 14), as well as the final design for the complete deck replacement for the bridge at Exit 14. The scope and fee for the final design for the rehabilitation of the three remaining bridges will be negotiated as an amendment after completion and acceptance of the Rehabilitation Study. This project is currently included in the State's Ten-Year Transportation Improvement Plan and Turnpike Capital Program (Bow-Concord 13742A).

Since the firm of McFarland-Johnson, Incorporated has satisfactorily completed the planning level study for this project which addressed transportation needs along the I-93 corridor in Bow and Concord (13742, Part A), the Department proposes to exercise its option to continue with this firm to perform this bridge rehabilitation effort (Part B). This firm has an excellent reputation and has demonstrated their capability to perform the necessary engineering and technical services for this project. They have a strong understanding of corridor issues and have established a good working relationship with the community and other stakeholders. Background information on this firm, as well as the approved Resolution for the 13742, Part A services are attached.

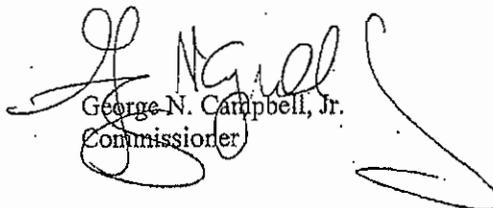
McFarland-Johnson, Incorporated has agreed to furnish the required services for a total lump-sum fee of \$393,255.00. This is a reasonable fee and is commensurate with the complexity of the project and the scope of engineering and technical services to be furnished.

The consultant selection process employed by the Department for this contract is in accordance with RSAs 21-I:22, 21-I:22-c and 21-I:22-d, all applicable Federal laws and the Department's "Consultant Selection and Service Agreement Procedures" dated December, 1999.

This Agreement has been approved by the Attorney General as to form and execution. The Department has certified that the necessary funds are available. Copies of the fully-executed Agreement 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 an Agreement for consulting services as outlined above.

Sincerely,



George N. Campbell, Jr.
Commissioner

(ITEM NO. 114)



THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION



GEORGE N. CAMPBELL, JR.
COMMISSIONER

JEFF BRILLHART, P.E.
ASSISTANT COMMISSIONER

Bureau of Highway Design

March 4, 2010

His Excellency, Governor John H. Lynch
and the Honorable Council
State House
Concord, New Hampshire 03301

Requested Action

1. Authorize the Department of Transportation to amend contract #866006 with McFarland-Johnson, Inc., Concord, NH and Binghamton, NY, Vendor #164736, for preliminary and final design for the rehabilitation for four red-listed bridges along the Interstate 93 corridor in the Town of Bow and City of Concord, by increasing the total lump-sum fee payable by \$942,821.51 (from \$393,255.00 to \$1,336,076.51) for additional design services that were anticipated, but not funded, in the original Agreement. 100% Turnpike Funds.

Funding is available as follows:

		<u>FY 2010</u>
04-96-96-961017-7507	Central NH Turnpike	\$942,821.51
046-500463	Consultants	

2. Further, authorize to amend the contract's completion date from June 30, 2010 to December 31, 2011, effective upon Governor and Council approval.

EXPLANATION

On June 25, 2008, the Governor and Council authorized the subject engineering consulting services Agreement (Item No. 309) for a lump-sum fee of \$393,255.00 for the preparation of rehabilitation studies recommending preliminary concepts and the level of rehabilitation for four red-listed bridges along the Interstate 93 (I-93) corridor in Bow and Concord (NB and SB at I-89, Exit 12, Exit 14), as well as the final design for the complete deck replacement for the bridge at Exit 14. The scope and fee for the final design for the rehabilitation of the three remaining bridges was to be negotiated as an amendment after completion and acceptance of the Rehabilitation Study. This project is currently included in the State's Ten-Year Transportation Improvement Plan and Turnpike Capital Program (Bow-Concord 13742A).

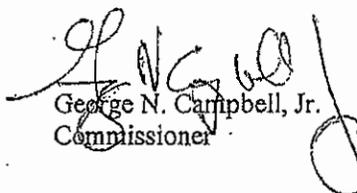
This amendment to the Agreement is for additional services primarily associated with the final design for the rehabilitation of two of the three bridges noted in the original June 25, 2008 Resolution as being subject to the completion and acceptance of the rehabilitation study prior to being negotiated for the final design services that would be funded by an amendment to the Agreement. The two bridges being designed by the services proposed by this amendment carry Interstate 93 over Interstate 89. The Rehabilitation Study for the final remaining bridge (Exit 12) has not yet been completed, therefore, the final design for the rehabilitation for that bridge will likewise need to be negotiated and funded by a forthcoming amendment to the Agreement.

McFarland-Johnson, Inc. has agreed to furnish the additional services for \$942,821.51. This amendment will increase the total lump-sum fee payable under this Agreement from \$393,255.00 to \$1,336,076.51. The increase in fee as proposed is commensurate with the revised scope of work and the corresponding additional engineering and technical services to be furnished.

This amended Agreement has been approved by the Attorney General as to form and execution. The Department has verified that the necessary funds are available. Copies of the fully-executed amended Agreement 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 amend this Agreement for consulting services as outlined above.

Sincerely,


George N. Campbell, Jr.
Commissioner

RECEIVED
MAR 10 2010
BUREAU OF HIGHWAY DESIGN
NH DEPT OF TRANSPORTATION

RECEIVED
JUN 13 2011
BUREAU OF HIGHWAY DESIGN
NH DEPT OF TRANSPORTATION



THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION



RGE N. CAMPBELL, JR.
COMMISSIONER

JEFF BRILLHART, P.E.
ASSISTANT COMMISSIONER

BOW-CONCORD
13742A
(Agreement Dated May 20, 2008
Contract No. 866006)

Bureau of Highway Design
Room 200 (CMF)
Tel. (603) 271-2165
Fax (603) 271-7025

March 4, 2010

Mr. Michael D. Long, P.E.
McFarland-Johnson, Inc.
53 Regional Drive
Concord, NH 03301

Dear Mr. Long:

This letter amends Article I, Description of Professional Services to be Rendered; Section D (Scope of Work -- Environmental), Section E (Scope of Work -- Final Design) and Section J (Date of Completion) as well as Article II, Compensation of Consultant for Lump Sum Agreements; Section A (General Fee) in the above-referenced Agreement.

Article I, Section D (Scope of Work -- Environmental) and Section E (Scope of Work -- Final Design) are being amended to incorporate the environmental and engineering tasks and services primarily associated with the replacement of two bridges that carry Interstate 93 over Interstate 89 as outlined in the Detailed Scope of Services issued November 24, 2009 and revised January 12, 2010, submitted by and received from the CONSULTANT, which is included as an attachment to this amendment.

Article I, Section J (Date of Completion) is being amended to allow sufficient time to complete the additional services. The original and amended dates are as follows:

Original Completion Date June 30, 2010
By this letter, amended to December 31, 2011

Article II, Section A (General Fee) is being amended to increase the total lump-sum amount payable under this Agreement by \$942,821.51 as payment for additional design services by McFarland-Johnson, Inc. and environmental services by newly-added subconsultant Independent Archaeological Consulting, LLC for work anticipated, but not funded, under the original agreement.

The portion of Article II, Section A (General Fee) specifying the apportionment of the total lump-sum fee is being amended to read as follows:

In consideration of the terms and obligations of this AGREEMENT, the STATE, through the DEPARTMENT, hereby agrees to pay and the CONSULTANT agrees to accept as full compensation for all services rendered to the satisfaction of the DEPARTMENT under this AGREEMENT, except as otherwise herein provided, a total lump sum of \$1,336,076.51, apportioned as follows:

Bridge No. 163/106 (Rehabilitation Study and Final Design): EXIT 14

Increases by \$17,404.76, from \$266,388.00 to \$283,792.76

Bridge No. 203/087 (Rehabilitation Study Only): EXIT 12 \$62,370.00 (does not change)

Bridge No. 135/160 & 136/160 (Rehabilitation Study Only): I-89 \$64,497.00 (does not change) complete

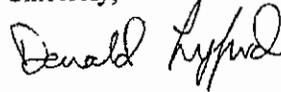
Bridge No. 135/160 & 136/160 (Final Design): I-89 \$882,922.32 (prev. \$0.00)

Bridge No. 136/131 (Design for Pier Repairs): *C-D Bridge* \$15,696.63 (prev. \$0.00)
McFarland-Johnson Sub-Total: \$1,309,278.71 (prev. \$393,255.00)
Independent Archaeological Consulting, LLC (subconsultant) \$26,797.80 (prev. \$0.00)
Contract Total: **\$1,336,076.51** (prev. \$393,255.00)

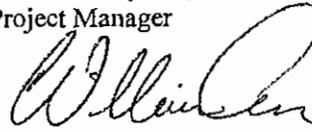
The above fee increase revises the total lump-sum fee payable under this Agreement, which increases from \$393,255.00 to \$1,336,076.51 by this amendment.

This amendment becomes effective upon approval by the Governor and Council.

Sincerely,



Donald A. Lyford, P.E.
Project Manager



Approved: William J. Cass, P.E.
Director of Project Development

We concur in the above Amendment.

~~MCFARLAND-JOHNSON, INC.~~

By:  _____

Title: *JAMES H. FESCA*
YA/COD _____

Attachment

AGREEMENT AMENDMENT

BOW-CONCORD, 13742A

MCFARLAND-JOHNSON, INC.

IN WITNESS WHEREOF the parties hereto have executed this amended AGREEMENT on the day and year first above written.

Consultant

WITNESS TO THE CONSULTANT

By: *Linda M. Morehead*
Administrative Assistant
Dated: *3-5-10*

By: *[Signature]*
VP/COO (Title)
Dated: *3-5-10*

Department of Transportation

WITNESS TO THE STATE OF NEW HAMPSHIRE

By: *Michelle Drouin*
Dated: *3/8/10*

THE STATE OF NEW HAMPSHIRE

By: *[Signature]*
William J. Cass, P.E.
Director of Project Development
RHDOT
Per-DOT COMMISSIONER
Dated: *3/8/10*

Attorney General

This is to certify that the above-amended AGREEMENT has been reviewed by this office and is approved as to form and execution.

Dated: *3/11/10*

By: *[Signature]*
Assistant Attorney General

Secretary of State

This is to certify that the GOVERNOR AND COUNCIL on **MAR 24 2010** approved this amended AGREEMENT.

Dated: **MAR 24 2010**

Attest: *[Signature]*
By: *[Signature]*

DEPUTY SECRETARY OF STATE

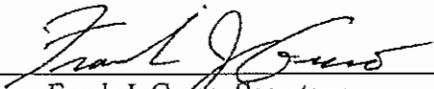
**CERTIFICATE OF SECRETARY
OF
McFARLAND-JOHNSON, INC.
ATTESTING TO THE ADOPTION OF BOARD RESOLUTION**

I, Frank J. Greco, Secretary of McFarland-Johnson, Inc., certify that on March 3, 2009, at a Meeting of the Board of Directors of McFarland-Johnson, Inc., the Directors, acting unanimously, adopted the following resolution:

RESOLVED, that the following elected Officers and employees of the Corporation are authorized to sign contracts in the name of, and on behalf of, the Corporation, in accordance with corporate policies and rules:

<u>Name</u>	<u>Office</u>
Richard J. Brauer	- President/CEO – Engineering
James M. Festa	- Vice President/COO/Chief Engineer/ Binghamton Regional Office Manager
Frank J. Greco	- Vice President/CFO/Secretary/Treasurer
Robert W. Lambert	- Regional Vice President
Frederick D. Mock	- Regional Vice President
Michael D. Long	- Concord Regional Office Manager
Richard W. Dall	- Burlington Regional Office Manager

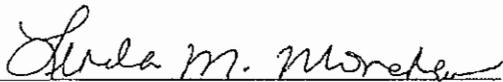
I certify that as a result of the action of the Board of Directors, James M. Festa, Vice President/COO/Chief Engineer/Binghamton Regional Office Manager of McFarland-Johnson, Inc., is fully authorized to enter into contracts, including Bow-Concord 13742A, in the name of and on behalf of the Corporation for the rendering of services by the Corporation.



Frank J. Greco, Secretary

[CORPORATE SEAL]

SUBSCRIBED AND SWORN TO
this 5th day of March, 2010



Notary Public

THOMAS J. FANTUZZI
Notary Public, State of New York
My commission expires 7/2/10

L:[LOO/MISC/FJG]002

State of New Hampshire
Department of State

CERTIFICATE

I, William M. Gardner, Secretary of State of the State of New Hampshire, do hereby certify that MCFARLAND-JOHNSON, INC., a(n) New York corporation, is authorized to transact business in New Hampshire and qualified on February 14, 1969. I further certify that all fees and annual reports required by the Secretary of State's office have been received.



In TESTIMONY WHEREOF, I hereto
set my hand and cause to be affixed
the Seal of the State of New Hampshire,
this 16th day of April, A.D. 2009

A handwritten signature in cursive script, appearing to read "William M. Gardner".

William M. Gardner
Secretary of State



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
12/29/2009

PRODUCER (607)754-3500 FAX: (607)754-9797

Robert J. Hanafin, Inc.
2' hington Ave.
P. cx 509

Endicott NY 13760

INSURED
McFarland-Johnson, Inc.
49 Court Street
PO Box 1980
Binghamton NY 13902-1980

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 POLICIES BELOW.

INSURERS AFFORDING COVERAGE

NAIC #

INSURER A: Hartford Fire Insurance

INSURER B: Hartford Casualty Insurance

INSURER C: Hartford

INSURER D:

INSURER E:

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

VS#	ADD'L TR	INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YYYY)	POLICY EXPIRATION DATE (MM/DD/YYYY)	LIMITS
A	X	X	GENERAL LIABILITY	01SBAAQ4699 (VT)	1/1/2010	1/1/2011	EACH OCCURRENCE \$ 1,000,000
			<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY	01SBAAQ4702 (NY)			DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000
			<input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR	01SBAAQ4704 (CT, NH, PA)			MED EXP (Any one person) \$ 10,000
							PERSONAL & ADV INJURY \$ 1,000,000
							GENERAL AGGREGATE \$ 2,000,000
							PRODUCTS - COM/OP AGG \$ 2,000,000
			GEN'L AGGREGATE LIMIT APPLIES PER:				
			<input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input checked="" type="checkbox"/> LOC				
A			AUTOMOBILE LIABILITY	01UECGF9204	1/1/2010	1/1/2011	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000
			<input checked="" type="checkbox"/> ANY AUTO				
			<input type="checkbox"/> ALL OWNED AUTOS				BODILY INJURY (Per accident) \$
			<input type="checkbox"/> SCHEDULED AUTOS				PROPERTY DAMAGE (Per accident) \$
			<input checked="" type="checkbox"/> HIRED AUTOS				
			<input checked="" type="checkbox"/> NON-OWNED AUTOS				
			GARAGE LIABILITY				AUTO ONLY - EA ACCIDENT \$
			<input type="checkbox"/> ANY AUTO				OTHER THAN EA ACC \$
							AUTO ONLY: AGG \$
B			EXCESS / UMBRELLA LIABILITY	01XHWWZ3498	1/1/2010	1/1/2011	EACH OCCURRENCE \$ 10,000,000
			<input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE				
			<input type="checkbox"/> DEDUCTIBLE				\$
			<input checked="" type="checkbox"/> RETENTION \$ 10,000				\$
C			WORKERS COMPENSATION AND EMPLOYERS' LIABILITY	01WBCT5691	1/1/2010	1/1/2011	<input checked="" type="checkbox"/> WC STATU-TORY LIMITS <input type="checkbox"/> OTH-ER
			ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under SPECIAL PROVISIONS below				Y/N N
			OTHER				E.L. DISEASE - EA EMPLOYEE \$ 500,000
							E.L. DISEASE - POLICY LIMIT \$ 500,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

Project: Bow - Concord, 13742A

New Hampshire Department of Transportation shall be named as additional insured on the General Liability policy.

CERTIFICATE HOLDER

New Hampshire
Department of Transportation
Box 483
Concord, NH 03302-0483

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

Debbie Blanchard/HJ

Deborah K Blanchard



ACORD CERTIFICATE OF LIABILITY INSURANCE DATE (MM/DD/YY) 08/11/09

1-201-262-1200
 Esler Agency, Inc.
 PO Box 60
 Oradell, NJ 07649

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 POLICIES BELOW.

INSURED
 McFarland-Johnson, Inc.
 Attn: Frank J. Greco
 49 Court Street, Metropcenter
 PO Box 1980
 Binghamton, NY 13902-1980

INSURERS AFFORDING COVERAGE
 INSURER A: Travelers Casualty & Surety Company of America
 INSURER B:
 INSURER C:
 INSURER D:
 INSURER E:

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS
	GENERAL LIABILITY <input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PROJECT <input type="checkbox"/> LOC				EACH OCCURRENCE \$ FIRE DAMAGE (Any one fire) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP ACSE \$
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS				COMBINED SINGLE LIMIT (Per accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	GARAGE LIABILITY <input type="checkbox"/> ANY AUTO				AUTO ONLY - EA ACCIDENT \$ OTHER THAN AUTO ONLY: EA ACC \$ AGG \$
	EXCESS LIABILITY <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE DEDUCTIBLE RETENTION \$				EACH OCCURRENCE \$ AGGREGATE \$ \$ \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY				WC STATUTORY LIMITS OTHER E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$
A	OTHER Professional Liability	105297672	06/15/09	06/15/10	Per Claim \$ 2,000,000 Annual Aggregate \$ 4,000,000

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/EXCLUSIONS ADDED BY ENDORSEMENT/SPECIAL PROVISIONS
 Bow-Concord, 13742-A
 Bedford-Manchester, 11512
 Deductible: \$50,000

CERTIFICATE HOLDER
 New Hampshire Department of Transportation
 vejoy
 P. . . ox 483
 Concord, NH 03302-0483
 USA

CANCELLATION
 SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.
 AUTHORIZED REPRESENTATIVE

**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 1**

**PART B
DETAILED SCOPE OF SERVICES
(RED LIST BRIDGES)**

Issued November 24, 2009
Revised January 12, 2010

This scope of services for Amendment 1 includes the preliminary design, final design, and contract document preparation for the two bridges that carry Interstate 93 (I-93) over Interstate 89 (I-89) (Bridge Nos. 135/160 and 136/160). The scope of services includes complete bridge replacements for each of these two structures. The scope of services also includes design development for concrete repairs to the piers of Bridge No. 136/161 (I-93 C-D/I-89).

Also included in this amendment are additional construction phase services associated with the I-93 Bridge over Loudon Road at Exit 14 (Bridge No. 163/106). This detailed scope of services is intended to supplement the general provisions outlined in the Master Agreement.

BRIDGE NO. 163/106 (EXIT 14)

The following scope text applies only to Construction Phase Services for the rehabilitation of Bridge No. 163/106 (Exit 14).

TASK 1 – CONSTRUCTION PHASE SERVICES

Requests for Information Responses – MJ staff will provide responses to formal Contractor requests for information (RFI) during the construction phase, as requested by the Department. For the purpose of this scope, it is assumed responses will be required by MJ for up to four (4) contractor RFI's.

Construction Submittal Review – This scope item provides effort for MJ staff to review construction submittals as requested by the Department. This scope assumes the Contractor/Subcontractor will use due diligence in preparing the submittal documents, and multiple reviews will not be required by MJ staff. For the purpose of this scope, it is assumed that ten (10) separate review submittals will be required by MJ staff. A list of the anticipated construction submittals is provided below.

- CPM Schedule (A-B-C)
- Bridge Deck Demolition Procedures
- Precast Panel Fabrication Drawings
- Precast Panel Erection Procedures
- Post-Tensioning Submittal (Stressing & Grouting)
- High-Early Strength Concrete Mix Designs
- Temporary Girder Support Submittal (Jacking for Bearing Replacement) (Documentation Only)
- Expansion Bearing Submittal
- Bridge Rail Submittal
- Concrete Repair Submittal
- Steel Cleaning & Painting Submittals (NHDOT responsibility)



**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 1**

Furnishing Advice During Construction - This scope item provides effort for MJ staff to advise the Department during construction. More specifically, it is intended to provide engineering support during the two weekend closure periods, or at other critical times during construction.

Meetings & Coordination - This scope item provides effort for MJ staff to prepare for and attend meetings at the request of the Department. Possible meeting types could consist of a Pre-Construction Meeting, Contractor Progress Meetings, and Public Officials Meetings. For the purpose of this scope, it is assumed that four (4) meetings will be required by up to two MJ staff members during the construction phase of this bridge rehabilitation project.

**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 1**

BRIDGE NO. 136/161 (I-93 C-D/I-89)

The following scope of services applies to the existing bridge, which carries the I-93 NB C-D Road over I-89 and the Turkey River (Bridge 136/161). The scope of services includes bridge engineering hours to develop plans and specifications in order to complete limited concrete repairs to deteriorated areas of the pier caps and columns.

The work will consist of identifying and quantifying concrete repair areas, and developing the repair plans, details and notes. Structural analysis and design is specifically excluded from the scope of services for this bridge. Only two plan sheets are necessary to detail the pier column and cap repair work required. The plan development effort will begin at the PPS&E phase and continue through the final Contract Plans (Mylar) submittal.

It is anticipated the work will consist of simple "chip & patch" type repairs to the lower portions of the columns that are located within the splash zone from I-89. A typical partial-depth concrete repair detail will also be developed for the pier cap members. It is assumed the piers will not require temporary shoring during construction, and temporary shoring details will not be developed as part of the design. It is further assumed that the repairs will not require project specific traffic control details.

The repairs to Bridge 136/161 will be part of the construction documents for Bridges 135/160 & 136/160 (I-93/I-89). No separate construction contract package is required.



**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 1**

BRIDGE NO.'S 135/160 & 136/160 (I-93/I-89)

The following scope of services applies to the replacement of Bridge Nos. 135/160 and 136/160 (I-93/I-89). There will be one construction contract to replace the two bridges. It is currently unknown whether each bridge will be given a unique bridge number for NHDOT bridge inventory.

Regardless of whether the structures are considered one bridge or two, we have assumed both structures will be included on a single, combined set of plans. In addition, shared details will be developed for both structures whenever possible, and structure specific item numbers will be minimized to the extent practical. It is assumed that conventional bridge construction and traffic control methods will be utilized. Accelerated bridge construction methods will not be utilized.

BRIDGE DESIGN

TASK 1 – BRIDGE TYPE, SPAN, AND LOCATION (TSL) STUDY

The TSL study will evaluate span lengths and arrangements for the proposed two-span bridge. The superstructure is anticipated to consist of horizontally curved steel plate girders with a cast-in-place concrete deck. The deck system will likely use mandatory partial-depth precast SIP panels, unless excessive roadway cross slopes preclude the use of this system, in which case a conventional cast-in-place deck system will be used. Prestressed concrete beams (NEBT's) or other structure types will not be evaluated due to vertical clearance considerations and the horizontal roadway curvature.

The TSL study will also evaluate construction staging requirements for the southbound bridge, and construction access and workspace requirements for both bridges.

TASK 2 – BORING LAYOUT SUBMISSION

A draft boring layout plan will be developed showing all proposed substructure units and proposed boring locations. The draft layout plan will be revised and finalized based on comments received from the Department.

TASK 3 – PRELIMINARY PLANS

We have assumed the NHDOT will perform geotechnical design, including soil-structure interaction, of all deep foundation elements. MJ will provide preliminary and final design loads to the NHDOT and MJ will develop the preliminary structural design of these elements using the results from the geotechnical analyses. It is assumed the geotechnical recommendations will be finalized by the Department and provided to MJ as part of the preliminary plan review comments.

Typical bridge sections will be developed and added to the plans to show how traffic will be maintained during all phases of construction. Preliminary abutment and pier elevations will be developed and added to the plans. A preliminary bridge cost estimate will also be provided.

Hydraulic and/or scour analysis will not be required for Turkey River per direction from the NHDOT.



**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 1**

TASK 4 - PRELIMINARY PS&E

The detailed design of the two structures will be completed during this phase. Curved girder designs will be performed separately for each superstructure unit using the DESCUS-I software program. For the southbound structure, separate girder models will be developed for each stage of the phased bridge construction. The controlling design checks from each model will be used to determine the final girder design proportions.

It is anticipated the piers will be founded on deep foundations due to the loose soils below the site. Two deep foundation systems will be evaluated for use. It is anticipated the two systems will consist of either drilled shafts that are integral with each pier column, or steel H-piles embedded in a reinforced concrete pile cap. The piers will be designed using the RC-PIER software program. For the southbound structure, separate pier models will be developed for each stage of the phased bridge construction. The controlling design checks from each model will be used to determine the final pier proportions and member reinforcement.

The bridge plans will be advanced to include all of the anticipated plan sheets, except for the reinforcing steel schedules. A single set of bridge quantities will be completed and reviewed in order to develop a reasonable PPS&E bridge cost estimate. Draft Special provisions will be developed for work items not covered by the NHDOT Standard Specifications. It is anticipated that up to five (5) special provisions could be required.

TASK 5 - PS&E SUBMISSION

The deck design and detailing will be finalized to incorporate comments received and to develop reinforcing bar marks for all cast-in-place components. A Bridge Capacity Summary (Form 4) will be completed for the bridge. Ratings will be summarized for the deck and controlling girder in each span. The interim quantities developed during Task 4 will be updated to reflect the latest PS&E design information. In addition, a second independent quantity take-off will be performed and the results compared to the first. The two quantity sets will be prepared and any differences will be resolved prior to submission. The draft special provisions will be finalized based on comments received.

TASK 6 - CONTRACT PLANS (MYLARS)

The plans will be updated to reflect comments received from the Department on the PS&E submission. The quantities will be updated to reflect changes made to the plans and/or specifications. It is anticipated that only minor revisions will be required at this stage. The final plans, calculations, and special provisions will be reviewed, printed and packaged for submission to the Department.

TASK 7 – CONSTRUCTION PHASE SERVICES

Requests for Information (RFI) Responses – MJ staff will provide responses to Contractor requests for information during the construction phase, as requested by the Department. For the purpose of this scope, it is assumed responses will be required by MJ for four (4) contractor RFI's.



**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 1**

Shop Drawing Review – This scope item provides time for MJ staff to review Contractor shop drawings as requested by the Department. This scope assumes the Contractor/Subcontractor will use due diligence in preparing the submittal documents, and multiple reviews per submittal will not be required by MJ staff. For the purpose of this scope, it is assumed that twenty (20) submittal reviews will be required by MJ staff.



**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 1**

HIGHWAY DESIGN

TASK 1 – PRE-PRELIMINARY HIGHWAY

A Pre-Preliminary submission will be prepared for the highway related work associated with the replacement of the I-93 Bridges over I-89. The submission will include evaluating three possible configurations of I-93. One of the configurations will maintain the current configuration of I-93. The second configuration would extend the third southbound lane on I-93 to the north to the southbound entrance ramp from Exit 12. The third configuration would extend the third northbound lane on I-93 to the north. The evaluation will include a traffic analysis to determine the benefits of extending the lane. Conceptual Construction Cost estimates will be included. Additional traffic counts on I-93 and ramps will also be conducted by MJ.

The Pre-Preliminary submission will include a conceptual traffic control plan for each of the configurations. It is assumed that the traffic control on I-93 will be confined to I-93 and that no ramp closures will be allowed. For the purposes of this scope it is assumed that the two bridges will be replaced in three phases. The southbound bridge will be constructed in the first two phases, with the northbound bridge constructed in the third phase.

The base maps to be used for contract plans will be developed during this task from the ground survey conducted and provided to MJ by the Department. It is assumed the project limits will extend from the southern limits of the I-89 Ramps on I-93 north to the southern limits of Exit 12.

TASK 2 – PRELIMINARY HIGHWAY PLANS

After receiving comments on the pre-Preliminary Submission, the Preliminary submission will be prepared for the highway related work using the Department's preferred configuration. The Preliminary submission will include the development of a Traffic Management Plan (TMP). It is assumed that Traffic Control Plans (TCP) for each phase of the construction will be required.

The Preliminary submission will include a conceptual evaluation of the stormwater impacts and potential modifications. It is assumed that portions of Bow Brook will require relocation. For the purposes of this scope it is assumed that the existing culvert under I-93 will be extended and not replaced.

TASK 3 – SLOPE & DRAIN SUBMISSION

A Slope and Drain submission will be prepared for the highway related work associated with the replacement of the bridges. TCP plans will be completed to near final form. It is assumed that cross sections will be required for temporary work in the median of I-93.

It is assumed that all proposed work will be confined to the existing right of way of I-93. The proposed slopes will be steepened or retaining walls used to avoid the need to acquire additional right-of-way. The existing right-of-way limits will be provided by the Department in Microstation as per the Department CADD Standards.

It is assumed that two separate detour alignments will be required due to the vertical difference and superelevation of the existing highway. Detour cross sections and detour plans will be included in this submission.



**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 1**

TASK 4 - PRELIMINARY PS&E

A Preliminary PS&E submission will be prepared for the highway related work. Completed TCP plans will be included.

The Preliminary PS&E plans will include miscellaneous structures plans for the extension of the culvert under I-93, any retaining walls required, and the relocation of an existing overhead sign structure. It is assumed that retaining walls will be required at the base of the embankment of I-93 due to the shift of the southbound lanes. These will be standard walls utilizing standard details. The walls are required to avoid right of way impacts. It is also assumed that the existing overhead sign structure north of the I-93/I-89 Interchange will have to be replaced.

TASK 5 - PS&E SUBMISSION

PS&E submission will be prepared for the highway related work.

TASK 6 - CONTRACT PLANS (MYLARS)

The plans will be updated to reflect comments received from the Department. The quantities will be updated to reflect changes made to the plans and/or specifications. The draft special provisions will be finalized based on comments received. It is anticipated that only minor revisions will be require at this stage. The final plans, calculations, and special provisions will be reviewed, printed and packaged for submission to the Department.

TASK 7 – PUBLIC PARTICIPATION

7.1 Public Officials Meetings – MJ will prepare for and participate in Public Officials Meetings. The purpose of the meeting is to present the replacement plan, including the traffic management plans, for the I-93/I-89 Bridges to the City of Concord and the Town of Bow. MJ will prepare plans and exhibits for the meetings. It is assumed that two (2) Public Officials Meetings will be held, one in Concord and one in Bow.

7.2 Public Informational Meeting – MJ will prepare for and participate in a Public Informational Meeting. The purpose of the meeting is to present the replacement plan and traffic management plan for the I-93/I-89 Bridges to the public. MJ will prepare a colored project plan and exhibits for the meeting. MJ will also coordinate the advertisement of the meeting in local newspapers and CCTV. It is assumed that one (1) Public Informational Meeting will be held. It is assumed that the Department will reserve and make all the arrangements for use of the venue for the meeting.

It is assumed that the color plan developed for the public informational meeting will need to be updated at the completion of the PS&E submission and at the completion of the Contract Plans submission for use by the Department.

**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 1**

ENVIRONMENTAL STUDIES

TASK 1 – NOISE ANALYSIS

This scope of services will provide a noise analysis along I-93 from 1 mile south of, ½ mile north of, and including the I-93/I-89 Interchange. The analysis addresses local concerns about the noise levels for properties adjacent to the interstates.

1.1 Data Collection – MJ will determine the existing noise levels throughout the project study area by field measuring noise levels at six locations using the procedures specified in the NHDOT Policy and Procedural Guidelines for the Assessment and Abatement of Highway Traffic Noise. MJ will propose appropriate measurement locations to the State for approval prior to measurement. MJ will compile the measurement results and existing noise levels. Assume one meeting with the Department is needed to discuss the project.

1.2 Noise Level Analysis – MJ will calculate future traffic noise levels within the project study area for each design alternative and the null alternative. These predictions will be consistent with the FHWA Highway Traffic Noise Prediction Model (Report No. FHWA-RD-77 -108) and will use the FHWA Traffic Noise Model Version 2.5. In predicting noise levels and assessing noise impacts, traffic characteristics which will yield the worst-case hourly traffic noise impact on a regular basis for the design year will be used. Traffic volumes, speeds, and classifications will be provided by the State. MJ will compile the results of these predictions numerically in tabular form.

1.3 Noise Impacts – MJ will determine the traffic noise impacts for the existing (no build) and one build alternative. MJ will quantify this determination to include both the type (e. g., residential, nonresidential, other) and number or extent of receptors impacted by existing conditions.

For this project a noise impact occurs wherever and whenever the predicted design year traffic noise level approaches within 1 dBA of the Noise Abatement Criteria or exceeds the existing noise level by 15 dBA or more.

It is assumed that a noise abatement analysis will be required.

1.4 Noise Abatement Measures – For the study area, MJ will examine and evaluate alternative noise abatement measures to reduce or eliminate the noise impact.

In accordance with the FHWA Noise Regulation 23 CFR 772 and the NHDOT Noise Assessment Policy, MJ shall analyze the acoustical and cost effectiveness of the various abatement measures and determine which measures are feasible and reasonable. MJ will recommend those specific measures that are feasible and reasonable at specific locations. In addition, for those noise impacts for which no apparent solution is available, MJ shall discuss why abatement will not be recommended.

Analysis of traffic noise abatement shall consider the feasibility and reasonableness of each of the following:



**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 1**

- Traffic management measures (e. g., prohibiting certain vehicle types, restricting time use for certain vehicle types, modifying the speed limit, or designating an exclusive lane).
- Alteration of horizontal or vertical alignments
- Acquisition of (predominantly unimproved) real property or interests therein to create a buffer zone pre-empting development that would be adversely impacted by traffic noise.
- Noise insulation of a publicly owned school building.
- Noise barriers, including associated landscaping and ROW acquisition.

MJ will use the FHWA Traffic Noise Model (TNM) and its current software TNM 2.5 to determine noise barrier heights and lengths. MJ will establish specific geometric parameters (i.e., height, length, location, etc.) to determine which locations will be further examined in detailed design.

The abatement analysis will include every reasonable effort to achieve a substantial noise reduction of 10 dBA or more. However, a minimum reduction of 5 dBA at the most benefited receptor must be achieved.

All evaluation, recommendation, and documentation of abatement measures will be as specified by the NHDOT Noise Assessment Policy (NAP).

1.5 Summary – MJ will provide a brief summary of best practices for minimizing construction noise caused by the project.

1.6 Noise Study Report – MJ will document the noise analysis in a Noise Study Report. MJ shall submit this report in draft form to the Department for preliminary review and revise it per comments received.

TASK 2 – ENVIRONMENTAL STUDY

The deliverable for this task is an environmental study that will fulfill NEPA documentation requirements for a Categorical Exclusion. The study will provide the basis for the project to move forward to final design and other state and federal permitting efforts.

2.1 Identify Existing Environmental Resources – Identify all existing resources along the project corridor. Resources and related considerations to be identified or addressed include:

- Traffic and Transportation – MJ will describe the existing traffic and transportation network, including any bicycle or pedestrian facilities.
- Groundwater: Aquifers and wells were mapped for the Bow-Concord planning study, and no further groundwater resource identification is necessary.
- Waterways – Gather existing information regarding the characteristics and quality of water bodies within or immediately downstream of the corridor, specifically Bow Brook, Turkey River, and the Merrimack River. Inventory existing drainage systems.

**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 1**

- Wetlands - Wetlands and waterways will be mapped based on a field delineation and survey within the project corridor. Wetland functions, values, and general characteristics will be described.
- Floodplains and Floodways – Floodplain mapping has been obtained from the City of Concord. Using floodplain elevations, floodplain boundaries were extrapolated to adjacent areas of Bow. Any FEMA-mapped floodways will also be mapped. It is assumed that no hydraulic analyses are required.
- Threatened/Endangered Species, Wildlife, and Fisheries Habitat – The NH Fish and Game Department and the NH Natural Heritage Bureau will be contacted to update the determinations regarding the existence of any threatened or endangered species or important habitat within the project vicinity. It is expected that none exist. Fish and wildlife habitat will be identified using existing information and a brief field reconnaissance, to be conducted during wetland delineation work.
- Farmland Soils – Soils designated as prime or statewide importance will be identified and mapped. No active agricultural land exists in the project area.
- Public and conserved lands: MJ will confirm there are no publically conserved lands, Land Conservation Investment Program lands, Section 6(f) property, or other public or conserved lands.
- Historic Resources – The *Historical Resources Constraints Report* prepared for the Bow-Concord project in March 2005 identified historically sensitive areas and structures along Grandview Road, South Street, and Hall Street. MJ will confirm the findings and conclusions with the NHDOT cultural resources specialist and NHDHR. No further resource ID is assumed.
- Archeological Resources – A consulting archeologist previously identified archeologically sensitive areas in several places within the study area. A Phase 1B and - where appropriate - additional combined Phase IA/IB archaeological investigation for the replacement of the I-93 bridges over I-89 will be conducted by Independent Archaeological Consulting (IAC). The new bridges will be substantially wider and will push ground disturbance to the west into areas identified as archeologically sensitive area "Section 8" in the Bow-Concord I-93 planning study (VBI 2004). Design plans may require additional archaeological sensitivity assessment of small areas adjacent to those already identified in the previous limited field survey. IAC has included one day of additional Phase 1 survey (up to 20 shovel test pits) to address sensitive areas.

IAC plans to conduct subsurface testing in areas identified during the 2004 study to confirm whether intact deposits exist. This sampling will entail approximately 100 shovel test pits (STPs) placed at 8-meter intervals in areas identified as archaeologically sensitive and which fall within the Area of Potential Effect (APE).

IAC estimates that the known sensitive area and the potentially sensitive areas can be excavated by four technicians and a supervisor in approximately six calendar days. IAC has also considered the need for deep trenching through mechanical excavation and has provided for two days of an operator and equipment to cut through larger areas. Phase 1B fieldwork includes the mapping of all shovel test pits, backhoe trenches, and landscape features (e. g., buildings, foundations, or stone walls) in relation to project plans showing proposed impacts. Artifacts removed from the field will be taken to our



**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 1**

lab in Portsmouth where they will be processed by technicians who will also label photos, and prepare materials for laboratory testing.

IAC will produce a report of its findings including detailed plans overlaid on construction plans, drawings of archaeological features, photographs, results of lab analysis, background research, interpretations, and recommendations.

IAC will also attend up to two cultural resources meetings to discuss findings of the Phase 1B study, alternatives, impacts, and possible mitigation measures.

- Hazardous Materials – The review carried out for the Bow-Concord planning study found records of several oil or hazardous/contaminated waste sites in the Exit 12 area. One site, on South Street, warranted detailed review, which revealed the site was under a Groundwater Management Permit. Therefore, the consultant recommended no further review. It is assumed that further study of hazardous materials will not be warranted.
- Environmental Justice – MJ will also review existing Town, census, or other information sources to gather information needed to ensure environmental justice requirements are met. This involves determining the socio-economic and minority status of neighborhoods within the study area.

These resources will be identified and quantified throughout the project study area. The project study area is assumed to extend 200' from existing highways and their ramps at the interchange, except that any pedestrian/bicycle connections parallel to I-93 will be identified within approximately 500'. We have assumed that no Section 4(f) resources will be found, so no Section 4(f) evaluation will be needed. We have also assumed that there will be No Effect or No Adverse Effect under Section 106 and no formal Section 106 MOA will be needed.

2.2 Impact Assessment and Mitigation – Impacts to existing resources will be identified for each alternative. As listed in Task 1 above, air, noise, and water quality impacts will be quantified using modeling techniques for each. This task will be completed by MJ with assistance from IAC.

- Air Quality – Because the project is in an attainment area and is not considered a "Regionally Significant Project" (per 40 CFR 93.101), no conformity determination is necessary. Because it is similar to an interchange reconfiguration, it is also exempt from a regional emissions analysis (per 40 CFR 93.127). However, because the project proposes adding lanes, it is a Type I highway project, which normally requires a microscale air quality analysis. Experience with similar projects with higher traffic volumes indicates it is highly unlikely this project would result in violations of the Clean Water Act. Therefore, no microscale analysis is proposed. Instead, MJ will describe in general terms the changes in traffic patterns and their likely effects on air quality. Other projects will be cited to support the conclusions.
- Noise – See Task 1 above.
- Traffic and Transportation – Describe temporary and permanent effects on traffic and transportation. It is assumed the project will not affect pedestrian and bicycle facilities.
- Groundwater: It is assumed there will be no groundwater impacts.
- Water Body Modification – Describe physical impacts to waterways in terms of linear feet, square footage, and relocation segments. Turkey River is a fourth order stream

**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 1**

under the jurisdiction of the Comprehensive Shoreland Protection Act. Determine impacts to this stream that are within CSPA jurisdiction. Describe possible mitigation measures for water body modifications. Bow Brook will likely be impacted by the proposed project.

- Water Quality – Describe potential water quality impacts in general terms. Quantify increase in pavement and stormwater runoff. Describe possible water quality treatment measures.
- Wetlands – Quantify wetland impacts and assess impacts to wetland functions and values. Describe possible mitigation measures.
- Floodplains and Floodways – Floodplain and floodway impacts will be quantified in terms of the project footprint in square footage. Potential mitigation measures will be described in general terms. It is assumed net impacts will be negligible, and no formal mitigation will be needed. It is further assumed that the Base Flood Elevation (BFE) will not need be determined and is not included in this scope.
- Threatened/Endangered Species, Wildlife, and Fisheries Habitat – The kinds and quality of habitat affected will be described and the impact footprint will be quantified. Because of the disturbed condition of the study area, it is assumed no mitigation will be necessary.
- Farmland Soils – Based on preliminary mapping, it is assumed no important farmland soils will be affected and no impact analysis is needed.
- Public and conserved lands: It is assumed no public or conserved lands are present or will be affected.
- Historic Resources – MJ will confirm that no historic resources will be affected through consultation with the NHDOT cultural resources specialist and NHDHR.
- Archeological Resources – IAC will produce a report of its findings including detailed plans overlaid on construction plans, drawings of archaeological features, photographs, results of lab analysis, background research, interpretations, and recommendations. It is assumed that no detailed impact assessment or follow-up studies are needed. MJ and IAC will attend two cultural resource agency meetings at NHDOT to present the findings of the Phase IB report.
- Hazardous Materials – It is assumed that no further hazardous materials study or assessment is needed.
- Environmental Justice – It is assumed no minority or low income populations occur in the vicinity, so no impact assessment is necessary.
- Impacts to land use, social and economic resources, and properties are expected to be negligible and will not require analysis.
- Permit issues will also be addressed.



**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 1**

2.3 Environmental Documentation – The Environmental Study will serve as the project Categorical Exclusion and will include the following components:

- Description of the proposed action
- Project Purpose and Need
- Alternatives considered
- Coordination and public participation
- Resources and environmental effects
- Mitigation measures
- Permit requirements
- Summary of environmental commitments
- Figures depicting resources within the study area
- Supporting documents and correspondence

The draft Environmental Study will be submitted to NHDOT (and others, if appropriate) for review. Once comments are received, the draft document will be revised as needed and finalized. The Environmental Study is the final deliverable for the Environmental Studies portion of the project.

2.4 Resource Agency Coordination – The following resource agency coordination meetings are proposed:

- An initial meeting with natural resource agencies at the monthly NHDOT meeting to introduce the project. This meeting will make the agencies aware of the project and help identify any concerns that they may have. This meeting will occur early in the process.
- A second meeting with the resource agencies to review alternatives and impacts. This meeting will provide confirmation of the preferred alternative and its impacts and mitigation.
- A meeting with NHDES at NHDES offices to discuss permitting issues.

TASK 3 – ENVIRONMENTAL PERMITTING

3.1 Wetland Permitting – The proposed work will require wetland impacts, including the relocation of a portion of Bow Brook. It is anticipated that the work will be categorized as a major impact under the NHDES Wetland Rules. MJ will meet at NHDES with wetland and shoreland permitting personnel. MJ will prepare a Standard Dredge and Fill Application as well as all necessary plans and documentation for submittal to NHDES. A preliminary check with the New Hampshire Natural Heritage Bureau indicates that there are rare species in the vicinity of the project. Some level of coordination with either the Natural Heritage Bureau and/or the New Hampshire Fish and Game Department will be necessary.

It is assumed that the wetland impacts will be covered under the Army Corps Programmatic General Permit, and that no Army Corps Individual Permit will be required for this project.

3.2 Shoreland Permitting – The proposed work will require impacts within 150' of the Turkey River, which is a Fourth Order Stream and is therefore regulated by RSA 483-B, the Comprehensive Shoreland Protection Act. MJ will prepare a shoreland application, shoreland



**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 1**

waiver request, and/or shoreland variance request, as well as all necessary plans and documentation for submittal to NHDES.

GENERAL SCOPE ASSUMPTIONS:

1. U.S. Customary (English) units will be utilized.
2. Bridge designs will utilize the AASHTO LRFD Bridge Design Specifications, 4th Edition (2007), with the 2009 Interim Revisions.
3. A single construction contract will be used to complete all of the work within the I-93/I-89 interchange.
4. No electronic submission of plan files will be required at any of the interim stage submissions. Electronic files will only be submitted at the completion of each construction contract.
5. Bar marks and reinforcing schedules will be prepared for cast-in-place concrete substructure and superstructure components when required. Bar marks and reinforcing schedules will not be prepared for precast bridge elements.
6. Surveying services will be performed by the NHDOT. Any additional survey information will be provided by NHDOT in Microstation format conforming to the Department's CAD/D Procedures and Requirements as of the date of execution of this agreement.
7. Subsurface soil exploration program and preliminary and final geotechnical engineering services will be performed by the NHDOT.
8. Right of way abstracting will be performed by the NHDOT. Abstracting information will be provided by NHDOT in Microstation format conforming to the Department's CAD/D Procedures and Requirements as of the date of execution of this agreement.
9. MJ will be responsible for the design of all pavement markings and roadside signs within the project area.
10. All permanent and temporary lighting design will be completed by the Department. MJ will incorporate lighting into the design plans. Lighting to include under bridge lighting and ramp nose lighting as required.
11. No inspection of existing culverts will be performed by MJ to evaluate their condition. Existing drainage systems critical to this project will be analyzed assuming they outlet within 500 feet of the project.
12. No utility relocations will be required.
13. Traffic volume counts from permanent counters along I-93 will be provided by the NHDOT.
14. One noise monitoring event per site will be conducted. Noise monitoring will be conducted during the AM or PM peak hour periods.
15. Assume six noise monitoring locations.
16. Abatement analyses will be completed for four locations.



**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 1**

17. GIS grade GPS receivers will be used in the noise study to locate features not included in available mapping. It is assumed that locations for five receptors are not included in existing mapping. GPS collection of roadway and barrier location information will not be required.
18. If GPS information is not acceptable, existing features will be surveyed by the NHDOT.
19. A single Noise Report will be prepared.
20. Wetlands will be surveyed using a GPS unit with sub-meter accuracy.
21. No Section 4(f) evaluation will be needed.
22. Section 106 determinations of effect will be the responsibility of NHDOT.
23. No further historic resource work (other than archeological studies) will be needed.
24. Four resource agency meetings are proposed.
25. No Alteration of Terrain Permit will be required.

**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 1**

ANTICIPATED DRAWING LIST

SHEET NO.	SHEET DESCRIPTION	Roadway Sheet	Bridge Sheet
1	Title Sheet	X	
2	Index of Sheets and General Notes	X	
3-4	Standard Symbols (2 Sheets)	X	
5-10	Typical Sections (6 Sheets)	X	
11-18	Roadway Quantity Summary Sheets (8 Sheets)	X	
19-28	Roadway Details (10 Sheets)	X	
29-34	General Plans (6 Sheets)	X	
35-40	Roadway Profiles (8 Sheets)	X	
41-46	Roadway Curbing and Pavement Layout (6 Sheets)	X	
47-52	Roadway Pavement Marking and Signing (6 Sheets)	X	
53-54	Detour Plan and Profile	X	
55-69	Traffic Control Plan (15 Sheets)	X	
70-74	Miscellaneous Structures Plans (5 Sheets)	X	
75	General Plan & Elevation		X
76	Project Notes Sheet		X
77	Site Plan & Survey Layout		X
78	Roadway Profiles		X
79	Roadway Approach Sections		X
80	Boring Layout Plan		X
81-86	Boring Logs (6 Sheets)		X
87-88	Traffic Control Typical Sections (2 Sheets)		X
89	Abutment A Piles		X
90	Abutment A Masonry		X
91	Abutment A Reinforcement		X
92	Abutment B Piles		X
93	Abutment B Masonry		X
94	Abutment B Reinforcement		X
95	Miscellaneous Abutment Details		X
96	Wingwall Elevations & Sections		X
97	Pier Piles		X
98	Pier Masonry		X
99	Pier Reinforcement		X
100	Pier Details		X



**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 1**

SHEET NO.	SHEET DESCRIPTION	Roadway Sheet	Bridge Sheet
101	Construction Staging Typical Sections		X
102	Bearing Layout Plans		X
103-104	Bearing Details (2 Sheets)		X
105	Framing Plan		X
106	Girder Elevations		X
107	Typical Bridge Section		X
108-109	Camber Tables (2 Sheets)		X
110-112	Steel Details (3 Sheets)		X
113	Deck Reinforcement Plan		X
114	Deck Reinforcement Sections		X
115	Precast Concrete Deck Panel Details		X
116	Approach Slab Details		X
117-119	Expansion Joint Details (3 Sheets)		X
120	Bridge Rail Details		X
121	Bridge Approach Rail Details		X
122	Snow Screening Details		X
123-125	Reinforcement Schedules (3 Sheets)		X
126-140	Detour Cross Sections (15 Sheets)	X	
141-180	Roadway Cross Sections (40 Sheets)	X	

**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 1**

The following sections of the master Agreement for Contract 13742A shall be amended as described below.

Remove Article I, Section H.1.a Pre-Preliminary Plans - Roadway and replace with:

Pre-Preliminary Plans – Roadway

This submission, made by the CONSULTANT, shall cover work through the 15 - 20% completion stage. The submission shall consist of the newly created base plan (with all pertinent existing ground detail, utilities, environmental resources, existing right-of-way and boundary lines, etc. shown) overlaid with the conceptual alignments, horizontal layouts, and profiles developed through, and in response to, the rehabilitation study process. During this stage, several "working sessions" (short, conceptual presentations by the CONSULTANT to the DEPARTMENT on work to date, with feedback on direction coming from the DEPARTMENT) are anticipated with the DEPARTMENT. The submission shall include the following:

- 1) Information on the alternative solutions proposed by the CONSULTANT. Each respective alternative shall be dimensioned to delineate travel-lane widths and various geometric features and include the average daily traffic (ADT) for both the opening year and design years and the directional design hourly volumes (DDHV) for the design year.
- 2) Preliminary level-of-service calculations shall be performed at the interchange for the alternatives analyzed.
- 3) Conceptual traffic control plan.
- 4) Study profiles with original-ground information and proposed grade lines.
- 5) Critical cross-sections containing original-ground cross-sections with the top line of template showing finished grades and any other information deemed necessary by the DEPARTMENT to assess the respective alternatives' impact on adjacent properties to support the respective alternatives.
- 6) "Study" estimates as appropriate and relevant for use in evaluating the various alternatives.
- 7) A narrative shall be furnished describing each alternative design solution's advantages and disadvantages. The CONSULTANT shall make a recommendation with qualifying statements justifying the preferred alternative.



**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 1**

The CONSULTANT will be expected to support their design proposal in any issues resulting from review by the DEPARTMENT and Federal agencies with alternate studies and reasonably itemized study cost comparisons for alternatives.

The DEPARTMENT will review this submission (two sets of roll prints) and any revisions requested shall be made by the CONSULTANT. At this time, the DEPARTMENT will select the alternative for further development.

Add the following paragraph to Article I, Section H.2

The CONSULTANT shall perform a load-rating analysis for each bridge using the AASHTO Load and Resistance Factor Rating Method (LRFR), to be submitted on a form provided by the DEPARTMENT.

Revise the following statements on page 19:

Rehabilitation Study
Boring Layout (Not included for this project.)
Preliminary PS&E Plans (providing updated quantities only)

To:

TSL (Type-Span-Location) Study Plan
Boring Layout
Preliminary PS&E Plans (80% complete)

Remove Article I, Section H.2.a and replace with:

a. **TSL (Type-Span-Location) Studies**

The alignments and profiles developed during the preliminary design of the highway portion of the project will, after approval of the preliminary highway plans by the DEPARTMENT, serve as a base for determining the types of structures that may be



**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 1**

utilized and the arrangement of the structure and its components with respect to span lengths, clearances, alignments, etc. which may affect the interface between the bridge and the highway or other features at the bridge location. These "other" features may include existing bridges, drainage facilities, buildings, streets, utilities, etc., or new structures, roadways, ramps, etc., that will be part of this project.

TSL study plans shall be prepared for the bridge showing the selected structure and shall include the plan, elevation, and typical bridge section. The plan and elevation shall generally be drawn to a scale as approved by the DEPARTMENT and shall accurately portray the location and size of the structural components, pavement and slope lines, center and grade lines, vertical and horizontal clearances, etc. The typical bridge section shall portray the components of the superstructure, materials of construction, beam spacing and locations, dimensions of pavement, curbs, etc.

At those locations where an existing bridge is adjacent or where a second bridge is proposed, sufficient detail shall be provided for the second bridge to clearly and accurately show the relationship between the two structures.

Remove Article I, Section H.2.b and replace with:

b. Boring Layout

Following the review and acceptance of the TSL Study Plan by the DEPARTMENT, a boring layout plan shall be prepared for each bridge, the layout being based on the approved TSL Plan. This proposed boring layout plan shall be submitted to the DEPARTMENT for approval.

The results of the subsurface explorations shall be plotted, indicating the materials encountered (by description and blow counts), water table, approximate construction elevations, etc. These subsurface data sheets shall be further developed for inclusion in the preliminary and final contract plans.

Revise Article I, Section H.2.d to read:

d. Preliminary PS&E - Bridge

Upon receipt of written approval of the Preliminary Plans, the final design and preparation of contract plans shall be commenced. This final design shall



**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 1**

incorporate revisions, if any, in the Preliminary Plans as approved by the DEPARTMENT.

The plan and elevation, survey plan and profiles, and boring logs as submitted for the Preliminary Plans shall be refined as necessary and become a part of the final contract plans.

Estimates of quantities shall be prepared for all materials of construction and shall be tabulated on the plans for each major component (footings, abutments, piers, superstructure, etc.) and summarized for each bridge.

Upon completion of these contract plans, except for quantities and reinforcing-bar lists, copies of the plans shall be submitted to the DEPARTMENT for review and comment, the plans at this stage representing about 80% completion.

Revise Article I, Section J to read:

J. DATE OF COMPLETION

The date of completion for the design services rendered under this AGREEMENT shall be December 31, 2011. Completion of construction services shall be in accordance with Article I-I - Construction Services.



THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
Bureau of Highway Design

ITEM NO. 132



ARGE N. CAMPBELL, JR.
COMMISSIONER

JEFF BRILLHART, P.E.
ASSISTANT COMMISSIONER

May 31, 2011

His Excellency, Governor John H. Lynch
and the Honorable Council
State House
Concord, New Hampshire 03301

Requested Action

1. Authorize the Department of Transportation to amend contract #866006 with McFarland-Johnson, Inc., Concord, NH and Binghamton, NY, Vendor #164736, for preliminary and final design for the rehabilitation for four red-listed bridges along the Interstate 93 corridor in the Town of Bow and City of Concord, by increasing the total lump-sum fee payable by \$168,951.94 (from \$1,336,076.51 to \$1,505,028.45) for additional design services that were not anticipated in the previously-amended Agreement. 100% Turnpike Funds.

Contingent upon the availability and continued appropriation of funds in FY 2012, as follows:

04-96-96-961017-7507	Central NH Turnpike	
		<u>FY 2012</u>
400-500870	Highway Contract Payments	\$168,951.94

2. Further, authorize to amend the contract's completion date from December 31, 2011 to November 20, 2012, effective upon Governor and Council approval.

EXPLANATION

On June 25, 2008, the Governor and Council authorized the subject engineering consulting services Agreement (Item No. 309; copy of Resolution attached) for a lump-sum fee of \$393,255.00 for the preparation of rehabilitation studies recommending preliminary concepts and the level of rehabilitation for four red-listed bridges along the Interstate 93 (I-93) corridor in Bow and Concord (NB and SB at I-89, Exit 12, Exit 14), as well as the final design for the complete deck replacement for the bridge at Exit 14. The scope and fee for the final design for the rehabilitation of the three remaining bridges was to be negotiated as an amendment after completion and acceptance of the Rehabilitation Study. This project is currently included in the State's Ten-Year Transportation Improvement Plan and Turnpike Capital Program (Bow-Concord 13742A).

On March 24, 2010, the Governor and Council authorized a fee increase amendment to the Agreement (Item No. 119; copy of Resolution attached) in the amount of \$942,821.51 for additional services associated with the final design for the rehabilitation of the two bridges that carry Interstate 93 over Interstate 89 and preliminary design for rehabilitating or replacing the Exit 12 bridge. The amendment increased the total amount payable from \$393,255.00 to \$1,336,076.51 and also extended the contract's completion date from June 30, 2010 to December 31, 2011.

The currently-proposed amendment to the Agreement is for additional services associated with the following tasks:

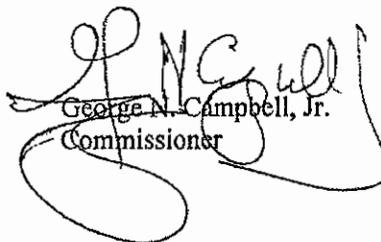
- An additional study for Exit 12 to better understand potential interchange configurations, which could influence the decision to rehabilitate or replace the bridge over I-93.
- The development of a Transportation Management Plan for the reconstruction of the I-93 bridges over I-89, as determined by the Traffic Control Committee.
- The extension of the project limits southerly of the Grandview Road bridge so pavement and guardrail treatments match into a recent Turnpike project that ended in that area.
- Drainage upgrades and re-paving of the entire Collector-Distributor (CD) road that facilitates the connection between I-93 and I-89. Since drainage reconstruction required for this project will cut through the pavement of the CD road at several locations, the Bureau of Turnpikes recommends the additional work.
- The Natural Resource Agencies determined that mitigation for impacts to Bow Brook needs to be pursued. Enhancements to the brook where it passes through the State Hospital complex have been identified and construction plans will be developed to include these enhancements with this I-93 construction project.

McFarland-Johnson, Inc. has agreed to furnish the additional services for \$168,951.94. This amendment will increase the total lump-sum fee payable under this Agreement from \$1,336,076.51 to \$1,505,028.45. The increase in fee as proposed is commensurate with the revised scope of work and the corresponding additional engineering and technical services to be furnished.

This amended Agreement has been approved by the Attorney General as to form and execution. Copies of the fully-executed amended Agreement 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.

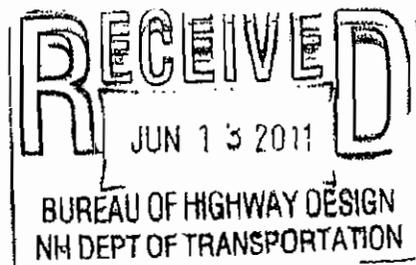
It is respectfully requested that authority be given to amend this Agreement for consulting services as outlined above.

Sincerely,


George N. Campbell, Jr.
Commissioner

GNC/wjh

s:\(towns)\bow\13742a\letters\g&c mji 05-31-11 rev#2.doc





THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION



GEORGE N. CAMPBELL, JR.
COMMISSIONER

JEFF BRILLHART, P.E.
ASSISTANT COMMISSIONER

BOW-CONCORD
13742A
(Agreement Dated May 20, 2008
Contract No. 866006)

Bureau of Highway Design
Room 200 (CMF)
Tel. (603) 271-2165
Fax (603) 271-7025

May 31, 2011

Mr. Michael D. Long, P.E.
McFarland-Johnson, Inc.
53 Regional Drive
Concord, NH 03301

Dear Mr. Long:

This letter amends Article I, Description of Professional Services to be Rendered; Section E (Scope of Work - Final Design) and Section J (Date of Completion) as well as Article II, Compensation of Consultant for Lump Sum Agreements; Section A (General Fee) in the above-referenced Agreement.

Article I, Section E (Scope of Work - Final Design) is being amended to incorporate the engineering tasks and services primarily associated with the replacement of two bridges that carry Interstate 93 over Interstate 89 as outlined in the Detailed Scope of Services issued April 14, 2011, submitted by and received from the CONSULTANT, which is included as an attachment to this amendment.

Article I, Section J (Date of Completion) is being amended to allow sufficient time to complete the additional services. The original and amended dates are as follows:

Table with 2 columns: Original Completion Date, Amended to, By this letter, amended to. Values: June 30, 2010, December 31, 2011, November 20, 2012.

Article II, Section A (General Fee) is being amended to increase the total lump-sum amount payable under this Agreement by \$168,951.94 as payment for additional design services by McFarland-Johnson, Inc. for work not anticipated under the previously-amended agreement.

The portion of Article II, Section A (General Fee) specifying the apportionment of the total lump-sum fee is being amended to read as follows:

In consideration of the terms and obligations of this AGREEMENT, the STATE, through the DEPARTMENT, hereby agrees to pay and the CONSULTANT agrees to accept as full compensation for all services rendered to the satisfaction of the DEPARTMENT under this AGREEMENT, except as otherwise herein provided, a total lump sum of \$1,505,028.45, apportioned as follows:

- Bridge No. 163/106 (Rehabilitation Study and Final Design): \$283,792.76 (does not change)
Bridge No. 203/087 (Rehabilitation Study Only): \$62,370.00 (does not change)
Bridge No. 203/087 (Replacement Study to TS&L): \$82,418.96 (prev. \$0.00)
Bridge No. 135/160 & 136/160 (Rehabilitation Study Only): \$64,497.00 (does not change)
Bridge No. 135/160 & 136/160 (Final Design):

Increases by \$86,532.98, from \$882,922.32 to \$969,455.30

Bridge No. 136/131 (Design for Pier Repairs): \$15,696.63 (does not change)
McFarland-Johnson Sub-Total: \$1,478,230.65 (prev. \$1,309,278.71)
Independent Archaeological Consulting, LLC (subconsultant) \$26,797.80 (does not change)
Contract Total: \$1,505,028.45 (prev. \$1,336,076.51)

The above fee increase revises the total lump-sum fee payable under this Agreement, which increases from \$1,336,076.51 to \$1,505,028.45 by this amendment.

This amendment becomes effective upon approval by the Governor and Council.

Sincerely,



Donald A. Lyford, P.E.
Project Manager



Approved: William J. Cass, P.E.
Director of Project Development

We concur in the above Amendment.

MCFARLAND-JOHNSON, INC.

By:  _____

Title: Senior Vice President/COO

Attachment

s:\(towns)\bow\13742a\letters\mjji 05-31-11 al.doc

AGREEMENT AMENDMENT

BOW-CONCORD, 13742A

MCFARLAND-JOHNSON, INC.

IN WITNESS WHEREOF the parties hereto have executed this amended AGREEMENT on the day and year first above written.

Consultant

WITNESS TO THE CONSULTANT

By: Linda M. Monate
Administrative Assistant

Dated: 6/1/11

CONSULTANT

By: [Signature]
Senior Vice President/COO (Title)

Dated: 6/1/11

Department of Transportation

WITNESS TO THE STATE OF NEW HAMPSHIRE

By: Michelle Dornier

Dated: 6/7/11

THE STATE OF NEW HAMPSHIRE

By: [Signature]
William J. Cass, P.E.
Director of Project Development
DOT COMMISSIONER

Dated: 6/7/11

Attorney General

This is to certify that the above-amended AGREEMENT has been reviewed by this office and is approved as to form and execution.

Dated: 6/14/11

By: [Signature]
Assistant Attorney General

Secretary of State

This is to certify that the GOVERNOR AND COUNCIL on JUL 13 2011 approved this amended AGREEMENT.

Dated: JUL 13 2011

Attest:
By: [Signature]
DEPUTY SECRETARY OF STATE



McFarland Johnson

McFarland-Johnson, Inc.
53 Regional Drive
Concord, NH 03301-8500
Phone: 603-225-2978
Fax: 603-225-0095
Web: www.mjinc.com

April 14, 2011

Project No. 16169.01

Mr. Donald Lyford, P.E.
New Hampshire Department of Transportation
John O. Morton Building
7 Hazen Drive
P.O. Box 483
Concord, NH 03302-0483

RE: Project: A000-(018), BOW-CONCORD
Red Listed Bridges
State Project No. 13742
Amendment 2 Scope and Fee

Dear Mr. Lyford:

Enclosed are the final Detailed Scope of Services and Fee Summary for Amendment 2 of the above referenced project. These documents include the revisions and updates for each of the additional scope items. The scope items are the Exit 12 Study, additional work on I-93 south, a Traffic Management Plans (TMP), mitigation at the NH Hospital, and additional drainage improvements on the CD Road.

MJ is ready and able to move forward with this effort and is available to assist the Department in any way. If you have any questions or require additional information, please do not hesitate to contact us.

Sincerely,
McFARLAND-JOHNSON, INC.

Gene McCarthy, P.E.
Project Manager

Cc: File

Enclosures

NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 2

PART B
DETAILED SCOPE OF SERVICES
(RED LIST BRIDGES)

Issued April 14, 2011

BRIDGE NO. 203/087 (EXIT 12)

Amendment 2 includes the preparation of a study to determine the future configuration of Interstate 93 and Exit 12 in the vicinity of Exit 12. The purpose of this evaluation is to determine the potential future configuration for replacing the bridge that carries NH Route 3A over Interstate 93 at Exit 12 (Bridge No. 203/087).

TASK 3 – BRIDGE REPLACEMENT STUDY

The purpose of the study is to determine the potential lane configuration of Interstate 93 between Interstate 89 and Exit 13 in Concord and the possible interchange configurations for Exit 12 to determine how these would affect the needs of the Route 3A Bridge crossing Interstate 93.

3.1 Traffic Evaluation – A traffic evaluation will be conducted to determine the future traffic demand on Interstate 93 and Exit 12 for the Design Year 2030. The evaluation will utilize traffic information generated during the Bow-Concord I-93 Transportation Planning Study, completed in 2008. That planning study developed a regional travel demand model for the Central NH Regional Planning Commission (CNHRPC). A Base Year 2000 Model and a Design Year 2030 Model were developed. The planning study also resulted in a range of reasonable alternatives for Interstate 93 that should be carried forward for further study. The range of reasonable alternatives were modeled using the Design Year 2030 Model to determine the future traffic demand associated with each alternative. The Bow-Concord I-93 Transportation Planning Study did not develop specific options for Exit 12.

The Year 2030 traffic demand for each of the reasonable alternatives will be reviewed and evaluated during this study. The number of lanes needed on Interstate 93 as it passes under NH Route 3A will be established. A worst case scenario will be used to ensure the alternatives developed for Exit 12 during this study will accommodate the range of reasonable alternatives developed during the Bow-Concord I-93 Transportation Planning Study. No new modeling will be conducted. The Highway Capacity Manual criteria and procedures will be used for this evaluation.

3.2 Alternatives Development & Evaluation – A maximum of three (3) Alternatives for the Exit 12 interchange will be developed based on the lane and ramp volumes developed during the traffic evaluation. It is assumed that only one lane configuration for Interstate 93 established during the traffic evaluation will be used. A typical section for Interstate 93 will be developed to determine the appropriate bridge spans. Alternatives for the interchange may include diamond and partial clover leaf configurations and the use of roundabouts at the ramp junctions with Route 3A. Conceptual layouts of the three alternatives will be developed as well as profiles for Route 3A and Interstate 93 (if necessary). Profiles of Interstate 93 may be necessary to determine the extent of the impact of the proposed bridge or ramps at Exit 12. A revised profile of Interstate 93 could impact the Interstate 93 Bridges over the B&M Railroad or Hall Street.



**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 2**

3.3 Bridge Replacement – A bridge replacement will be developed to accommodate the range of potential alternatives for the future Exit 12. The bridge length, width, and depth will be determined. A bridge typical section and profile will be prepared. The Interstate 93 Bridges over the B&M Railroad and Hall Street will be evaluated to determine whether profile considerations would require widening or replacement of the bridges.

3.4 Traffic Control Evaluations – Traffic control concepts will be developed for the bridge replacement. The traffic control will focus on the bridge construction and perpetuating the existing configuration of Exit 12. Conceptual plans will be developed to determine impacts and cost.

3.5 Cost Estimates – Construction cost estimates will be developed for the bridge replacement and associated roadway improvements. These costs will include all bridge, roadway, utility relocation, and temporary traffic control costs. The estimates will reflect a Preliminary plan level of accuracy. Cost estimates of the three interchange alternatives will be prepared.

3.6 Study Report – An Exit 12 Study Report will be developed summarizing the findings of the tasks listed above.

3.7 Bridge Type, Span, and Location (TSL) Study – The TSL study will use the bridge geometry information developed during Task 3.3 (length, width, and depth) for the selected alternative. The TSL will evaluate two superstructure beam systems (NEBT and steel plate girders) and three abutment systems (integral, full-height cantilever, and MSE breast wall). The center pier is likely to utilize a multi-column bent system based on NHDOT practice and economics.

The TSL study will also evaluate the constructability and workspace requirements of the new bridge based on its proximity to the existing bridge. A combined TSL and Boring Layout package will be submitted, and shall consist of plans (General Plan & Elevation, Site Plan & Profile, Typical Bridge Sections, and Bridge Traffic Control Sections), letter report, and preliminary bridge cost estimates.

SCOPE ASSUMPTIONS (EXIT 12):

1. U.S. Customary (English) units will be utilized.
2. Bridge designs will utilize the AASHTO LRFD Bridge Design Specifications, 5th Edition (2010).
3. Existing survey and aerial photos will be used for plan preparation.
4. No additional natural or cultural resource information will be required.
5. Four (4) meetings with the Department will be required.

**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 2**

BRIDGE NO.'S 135/160 & 136/160 (I-93/I-89)

Amendment 2 includes the preparation of a Traffic Management Plan (TMP) for the replacement of the two bridges that carry Interstate 93 over Interstate 89 and the Turkey River. Also included in this scope is additional roadway work on the southern limits of the project on Interstate 93. This additional work includes pavement overlay and median barrier replacement.

HIGHWAY DESIGN

The scope below for Tasks 3 thru 6 covers the additional effort to extend the southern limits of the project by approximately 1,500 feet. The additional work includes pavement overlay, drainage modifications, and new median barrier. Modifications to Department standard details for barrier and guardrail transitions are anticipated.

TASK 3 – SLOPE & DRAIN SUBMISSION

The additional work items will be presented on the Slope and Drain plans based on direction from the Department and the Bureau of Turnpikes. The profiles of Interstate 93 from the preliminary submission will not be adjusted. Cold planing and overlay is assumed for the extended project limits. No cross sections will be produced for the extended project limit.

TASK 4 - PRELIMINARY PS&E

Preliminary PS&E will be prepared to include the extended project limits.

TASK 5 - PS&E SUBMISSION

PS&E will be prepared to include the extended project limits.

TASK 6 - CONTRACT PLANS (MYLARS)

Contract mylars will be prepared to include the extended project limits.

TASK 8 – TRAFFIC MANAGEMENT PLAN (TMP)

A Traffic Management Plan (TMP) was deemed necessary for the replacement of the two bridges because these bridges carry interstate traffic and the anticipated duration for the construction is three years.

8.1 Prepare Draft TMP – A Draft TMP will be prepared based upon the NHDOT Policy #601.01 *Guidelines for Implementation of the Work Zone Safety and Mobility Policy*. The twelve step TMP Development Process outlined in the policy will be followed. It is assumed that Steps 1 thru 4 have already been completed by the Department and the project has been deemed a "Significant Project", therefore a TMP is required. Task 8.1 will complete Steps 5 thru 7.

8.2 Develop Cost Estimates for TMP Strategies – Cost estimates for the TMP Strategies approved by the Traffic Control Committee (TCC) will be prepared.



**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 2**

8.3 Develop Special Provisions for TMP Strategies – Special Provisions for the TMP Strategies approved by the Traffic Control Committee (TCC) will be prepared.

8.4 Prepare Pre-Final TMP – A Pre-Final TMP will be prepared that addresses all comments from the Department and TCC. Task 8.4 will complete Steps 6 thru 9.

8.5 Prepare and Submit Final TMP – The Final TMP will be prepared after final comments from TCC. Task 8.5 will complete Step 10.

8.6 Construction Phase Services – Assistance will be provided for the implementation of the TMP. The TMP will be evaluated every six months during construction to determine the effectiveness of the TMP strategies. MJ will incorporate updated information from crash and traffic data supplied by the Department. If any revisions are deemed necessary, the TMP will be revised. Task 8.6 will complete Step 11.

8.7 Progress Meetings/Accounting – Meetings will be held during the preparation of the various TMP versions. These include TCC Meetings. Meetings with the Contract Administrator (CA) and contractor are also anticipated.

SCOPE ASSUMPTIONS (I-93/I-89):

6. U.S. Customary (English) units will be utilized.
7. Survey will be provided by the Department and incorporated into the survey already developed.
8. One additional plan sheet will be required for the southern extension. The sheet breakouts established during the preliminary submission will not be changed.
9. No additional natural or cultural resource information will be required.
10. For the TMP process, assume four (4) progress meetings, two (2) TCC meetings, and three (3) meetings during the construction phase.

NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 2

BRIDGE NO.'S 135/160 & 136/160 (I-93/I-89)

Amendment 2 also covers proposed mitigation for the impacts to Bow Brook as the result of the replacement of the two bridges that carry Interstate 93 over Interstate 89 and the Turkey River. The mitigation consists of stream restoration and associated improvements for a portion of Bow Brook on the New Hampshire State Hospital Site.

ENVIRONMENTAL STUDIES

TASK 4 – BOW BROOK RESTORATION

4.1 Design and Plans - MJ will design and prepare plans, specifications, and estimates for two areas, a segment of Bow Brook at the southern end of the New Hampshire State Hospital (NHSH) campus (Area 1) and an area of pavement removal on the north end of the (NHSH) campus (Area 2). These two projects will be included in contract 13742-B.

The design intent is to create a more natural stream area, floodplain, and riparian environment within the confines of the New Hampshire State Hospital grounds. A hydrologic and hydraulic analysis will be completed to determine flows and optimal width and channel structure. MJ will document findings in a brief technical report, which will be submitted to NHDOT. MJ will also delineate existing wetlands and stream channels (ordinary high water) within the corridor to current Army Corps and NHDES delineation criteria. MJ will submit appropriate documentation of the delineation (brief technical memo, data sheets, and photos) to NHDOT and to the resource agencies.

For design purposes, MJ will identify a reference reach for Bow Brook, most likely downstream south of Clinton Street. The proposed stream channel will have natural substrate material, and the channel will be reshaped as necessary to create a more natural channel and floodplain, with appropriate streambank stabilization measures. Landscaping materials for the riparian areas will consist of native plant species appropriate for streambank stabilization, erosion control, and wildlife food and cover. Landscaping materials will also accommodate the State Hospital's safety concerns.

Area 1

Area 1 consists of a 900-foot long portion of Bow Brook that flows through the southern portion of the State Hospital campus from the pond / detention basin to Clinton Street. The existing stream has no vegetated buffer and no floodplain.

It is assumed that the plans will be completed at 1"=50' scale. Two general plans will be required at this scale to cover the entire corridor. One typical section sheet, one stream profile sheet, cross sections at 50' intervals, a grading plan, and a landscape plan will also be developed.

Area 2

**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
 INTERSTATE 93 BOW-CONCORD
 STATE PROJECT NO. 13742A
AMENDMENT 2**

Area 2 consists of a segment of Bow Brook at the north end of campus, upstream of Area 1. An area of pavement measuring 3,100 square feet will be removed and the area will be revegetated.

MJ will create plans showing the pavement removal and native plantings that will provide wildlife food and cover. The plans will include one plan sheet and one landscaping plan sheet. It is assumed that one typical section sheet will also be required to indicate the pavement removal and soil replacement.

Plans

The following is our estimate of the plan sheets required for the restoration in both areas. A landscaping summary sheet is required for both areas (one overall summary sheet will be created).

Sheet Type	Area 1	Area 2
Typical Sections	1	1
Plans	2	1
Profile	1	No
Landscaping Plans	2	1
Grading Plan	2	No
Landscape Details	1	No
Detail Sheet	2	No
Cross Sections	5	No
Erosion Control	1	1
Summary Sheets	1	1
TOTALS	18	5

The following list of assumptions provides additional information regarding the work to be completed as part of the Bow Brook Restoration.

1. MJ will attend a preliminary concept meeting with NHDOT, a design review meeting with NHDOT, a field or office meeting with the resource agencies, and two meetings with the NESH.
2. The survey provided by the NESH will be sufficient for design and plan purposes. The mapping will not be converted to comply with NHDOT standards.
3. The wetland impacts will be permitted as part of the overall project wetland permit.
4. No other permits will be prepared.
5. No archaeological investigations are included.

**NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
INTERSTATE 93 BOW-CONCORD
STATE PROJECT NO. 13742A
AMENDMENT 2**

BRIDGE NO.'S 135/160 & 136/160 (I-93/I-89)

Amendment 2 includes additional drainage work along the I-89/I-93 Collector-Distributor (CD) Road. This additional work focuses on replacing existing corrugated metal pipe along the roadway.

HIGHWAY DESIGN

The scope below for Tasks 5 and 6 covers the additional effort to include the pipe replacements with the contract documents. The additional work includes drainage evaluations, drainage design, plan preparation, traffic control, quantities, and estimates for approximately eight new drainage structures and twelve new pipe runs.

TASK 5 - PS&E

The additional work items will be presented on the PS&E plans based on direction from the Department and the Bureau of Turnpikes. Interim submittals will be made to confirm the design approach prior to completing detail plans and quantities. It is assumed that the existing northbound I-93 cross sections will be used to present the proposed CD Road drainage elements unless the coverage is not sufficient. In those cases, the existing cross section limits will be expanded.

TASK 6 - CONTRACT PLANS (MYLARS)

Contract mylars will be prepared to include the additional drainage elements.

SCOPE ASSUMPTIONS:

11. No additional plan sheets will be required for the additional drainage elements.
12. No additional environmental work is required.
13. No other permits will be required.

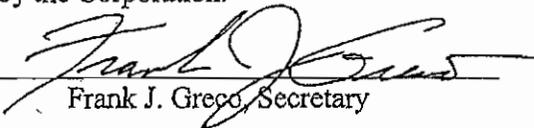
**CERTIFICATE OF SECRETARY
OF
McFARLAND-JOHNSON, INC.
ATTESTING TO THE ADOPTION OF BOARD RESOLUTION**

I, Frank J. Greco, Secretary of McFarland-Johnson, Inc., certify that on March 16, 2011, at a Meeting of the Board of Directors of McFarland-Johnson, Inc., the Directors, acting unanimously, adopted the following resolution:

RESOLVED, that the following elected Officers and employees of the Corporation are authorized to sign contracts in the name of, and on behalf of, the Corporation, in accordance with corporate policies and rules:

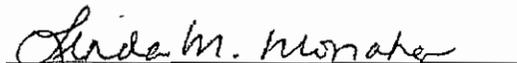
<u>Name</u>	<u>Office</u>
Richard J. Brauer	- President/CEO – Engineering
James M. Festa	- Sr. Vice President/COO/Chief Engineer/ Binghamton Regional Office Manager
Frank J. Greco	- Sr. Vice President/CFO/Secretary/Treasurer
Robert W. Lambert	- Vice President
Frederick D. Mock	- Vice President
Chad G. Nixon	- Vice President
Michael D. Long	- Concord Regional Office Manager

I certify that as a result of the action of the Board of Directors, James M. Festa, Senior Vice President/COO/Chief Engineer/Binghamton Regional Office Manager of McFarland-Johnson, Inc., is fully authorized to enter into contracts, including Bow-Concord 13742A, in the name of and on behalf of the Corporation for the rendering of services by the Corporation.


Frank J. Greco, Secretary

[CORPORATE SEAL]

SUBSCRIBED AND SWORN TO
this 15th day of June, 2011


Notary Public

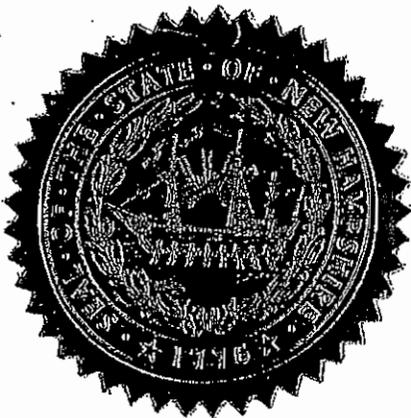
LINDA M. MONAHAN
Notary Public, State of New York
No. 4968747
Residing in Broome County
My commission expires 7/2/14

L:[LOO/MISC/FJG]002

State of New Hampshire
Department of State

CERTIFICATE

I, William M. Gardner, Secretary of State of the State of New Hampshire, do hereby certify that MCFARLAND-JOHNSON, INC., a(n) New York corporation, is authorized to transact business in New Hampshire and qualified on February 14, 1969. I further certify that all fees and annual reports required by the Secretary of State's office have been received.



In TESTIMONY WHEREOF, I hereto
set my hand and cause to be affixed
the Seal of the State of New Hampshire,
this 1st day of June, A.D. 2011

A handwritten signature in cursive script, appearing to read "Wm Gardner".

William M. Gardner
Secretary of State



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

12/23/2010

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Robert J. Hanafin, Inc. 204 Washington Ave. P. O. Box 509 Endicott NY 13760		CONTACT NAME: Renee Davidson PHONE (A/C No., Ext): (607) 754-3500 FAX (A/C No.): (607) 754-9797 E-MAIL ADDRESS: renee@rjhanafininc.com PRODUCER CUSTOMER ID #: 00003801													
INSURED McFarland Johnson, Inc. 49 Court Street PO Box 1980 Binghamton NY 13902-1980		INSURER(S) AFFORDING COVERAGE <table border="1"> <tr> <td>INSURER A: Trumbull Insurance Company</td> <td>27120</td> </tr> <tr> <td>INSURER B: Hartford Fire Insurance Company</td> <td>19682</td> </tr> <tr> <td>INSURER C: Hartford Casualty Insurance Co</td> <td>29424</td> </tr> <tr> <td>INSURER D: Hartford</td> <td>100</td> </tr> <tr> <td>INSURER E:</td> <td></td> </tr> <tr> <td>INSURER F:</td> <td></td> </tr> </table>		INSURER A: Trumbull Insurance Company	27120	INSURER B: Hartford Fire Insurance Company	19682	INSURER C: Hartford Casualty Insurance Co	29424	INSURER D: Hartford	100	INSURER E:		INSURER F:	
INSURER A: Trumbull Insurance Company	27120														
INSURER B: Hartford Fire Insurance Company	19682														
INSURER C: Hartford Casualty Insurance Co	29424														
INSURER D: Hartford	100														
INSURER E:															
INSURER F:															

COVERAGES CERTIFICATE NUMBER: 11-12 MASTER REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY	X	01SBAAQ4699 (VT) 01SBAAQ4702 (NY) 01SBAAQ4704 (CT, NH, PA)	1/1/2011	1/1/2012	EACH OCCURRENCE \$ 1,000,000
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY					DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR					MED EXP (Any one person) \$ 10,000
	GENL AGGREGATE LIMIT APPLIES PER:					PERSONAL & ADV INJURY \$ 1,000,000
	<input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO. VECT. <input type="checkbox"/> LOC					GENERAL AGGREGATE \$ 2,000,000
B	AUTOMOBILE LIABILITY		01DECGF9204	1/1/2011	1/1/2012	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000
	<input checked="" type="checkbox"/> ANY AUTO	BODILY INJURY (Per person) \$				
	<input type="checkbox"/> ALL OWNED AUTOS	BODILY INJURY (Per accident) \$				
	<input type="checkbox"/> SCHEDULED AUTOS	PROPERTY DAMAGE (Per accident) \$				
	<input checked="" type="checkbox"/> HIRED AUTOS	Uninsured motorist combined \$ 1,000,000				
	<input checked="" type="checkbox"/> NON-OWNED AUTOS	Uninsured motorist \$ 1,000,000				
C	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR		01KHUWZ3498	1/1/2011	1/1/2012	EACH OCCURRENCE \$ 10,000,000
	<input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE					AGGREGATE \$ 10,000,000
	<input type="checkbox"/> DEDUCTIBLE					\$
D	<input checked="" type="checkbox"/> RETENTION \$ 10,000					\$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N <input type="checkbox"/>	N/A	01WBCT5691	1/1/2011	1/1/2012

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Project: Bow - Concord, 13742A

New Hampshire Department of Transportation shall be named as additional insured on the General Liability policy.

CERTIFICATE HOLDER**CANCELLATION**

New Hampshire
Department of Transportation
PO Box 483
Concord, NH 03302-0483

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Debbie Blanchard/LORI *Deborah K Blanchard*

ACORD CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YY)
06/14/2011

PRODUCER
Fenner & Esler Agency, Inc.
PO Box 60
Oradell, NJ 07649

1-201-242-1200

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 POLICIES BELOW.

INSURERS AFFORDING COVERAGE

INSURED
McFarland-Johnson, Inc.
att: Frank J. Greco
49 Court Street, Metrocenter
PO Box 1980
Binghamton, NY 13902-1980

INSURER A: OneBeacon Insurance Company
INSURER B:
INSURER C:
INSURER D:
INSURER E:

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS
	GENERAL LIABILITY <input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC				EACH OCCURRENCE \$ FIRE DAMAGE (Any one fire) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS				COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	GARAGE LIABILITY <input type="checkbox"/> ANY AUTO				AUTO ONLY - EA ACCIDENT \$ OTHER THAN EA ACC \$ AUTO ONLY: AGG \$
	EXCESS LIABILITY <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> DEDUCTIBLE <input type="checkbox"/> RETENTION \$				EACH OCCURRENCE \$ AGGREGATE \$ \$ \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY				WC STATU- OTH- TORY LIMITS ER. E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$
A	OTHER Professional Liability	DPL-0764-11	06/15/11	06/15/12	Per Claim \$ 5,000,000 Annual Aggregate \$ 5,000,000

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/EXCLUSIONS ADDED BY ENDORSEMENT/SPECIAL PROVISIONS

Portsmouth 13455, STP-X-5379 (025), US Route 1 Bypass, NJ Project No. 17402.00
 Bow-Concord, 13742A, Meredith 10430, STP-P-X-0241 (014)
 Deductible: \$50,000

CERTIFICATE HOLDER

ADDITIONAL INSURED: INSURER LETTER:

CANCELLATION

New Hampshire Department of Transportation

P. O. Box 483
 7 Haxen Drive
 Concord, NH 03302-0463

08A

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE



THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION



CHRISTOPHER D. CLEMENT, SR.
COMMISSIONER

JEFF BRILLHART, P.E.
ASSISTANT COMMISSIONER

Bureau of Highway Design
April 24, 2012

His Excellency, Governor John H. Lynch
and the Honorable Council
State House
Concord, New Hampshire 03301

Handwritten note: Tabled 6/20/12

Requested Action

1. Authorize the Department of Transportation to amend PO #500027 with McFarland-Johnson, Inc., Concord, NH and Binghamton, NY, Vendor #164736, for preliminary and final design for the rehabilitation of four red-listed bridges along the Interstate 93 corridor in the Town of Bow and City of Concord, by increasing the total lump-sum fee payable by \$569,743.48 (from \$1,505,028.45 to \$2,074,771.93) for additional design services that were not included in the previously-amended Agreement, effective upon Governor and Council approval. 100% Turnpike Funds.

Funding is available as follows:

Table with 3 columns: Account Number, Description, and Amount. Row 1: 04-96-96-961017-7507, Central NH Turnpike, 400-500870, Highway Contract Payments, \$569,743.48, FY 2012.

2. Further, authorize to amend the contract's completion date from November 20, 2012 to December 31, 2013, effective upon Governor and Council approval.

EXPLANATION

This contract amendment is for the final design of the I-93 Exit 12 red list bridge carrying NH 3A over I-93. Two other projects involving three red list bridges have been designed under this contract; the deck replacement of the I-93 Exit 14 bridge over Bridge Street (completed in 2010), and the replacement of the I-93 bridges over Interstate 89 at Bow Junction (presently under construction). The final design of the Exit 12 bridge is the final task under this design contract.

On June 25, 2008, the Governor and Council authorized the subject engineering consulting services Agreement (Item No. 309; copy attached) for a lump-sum fee of \$393,255.00 for the preparation of rehabilitation studies recommending preliminary concepts and the level of rehabilitation for four red-listed bridges along the Interstate 93 (I-93) corridor in Bow and Concord (NB and SB at I-89, Exit 12, Exit 14), as well as the final design for the complete deck replacement for the bridge at Exit 14. The scope and fee for the final design for the rehabilitation of the three remaining bridges was to be negotiated as an amendment after completion and acceptance of the Rehabilitation Study. This project is currently included in the State's Ten-Year Transportation Improvement Plan and Turnpike Capital Program (Bow-Concord 13742A).

On March 24, 2010, the Governor and Council authorized a fee increase amendment to the Agreement (Item No. 119; copy attached) in the amount of \$942,821.51 for additional services associated with the final design for the rehabilitation of the two bridges that carry Interstate 93 over Interstate 89 and preliminary design for rehabilitating or replacing the Exit 12 bridge. The amendment increased the total amount payable from \$393,255.00 to \$1,336,076.51 and also extended the contract's completion date from June 30, 2010 to December 31, 2011.

On July 13, 2011, the Governor and Council authorized a fee increase amendment to the Agreement (Item No. 132; copy attached) in the amount of \$168,951.94 for additional services associated with an additional study for Exit 12 to better understand potential interchange configurations, development of a Transportation Management Plan for the reconstruction of the I-93 bridges over I-89, extension of the project limits southerly of the Grandview Road bridge, and drainage upgrades and re-paving of the entire portion of I-93 connecting I-93 NB with I-89 NB. The amendment increased the total amount payable from \$1,336,076.51 to \$1,505,028.45 and also extended the contract's completion date from December 31, 2011 to November 20, 2012.

The currently-proposed amendment to the Agreement is for additional highway design, bridge design, environmental and archaeological services associated with the final design for the replacement of the bridge that carries NH 3A over Interstate 93 at Exit 12, and the design for roundabouts at the two ramp intersections with NH 3A.

McFarland-Johnson, Inc. has agreed to furnish the additional services for \$569,743.48. This amendment will increase the total lump-sum fee payable under this Agreement from \$1,505,028.45 to \$2,074,771.93. The increase in fee as proposed is commensurate with the revised scope of work and the corresponding additional engineering and technical services to be furnished.

This amended Agreement has been approved by the Attorney General as to form and execution. Copies of the fully-executed amended Agreement 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 amend this Agreement for consulting services as outlined above.

Sincerely,

Christopher D. Clement, Sr.
Commissioner