



THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION



91 [signature]

CHRISTOPHER D. CLEMENT, SR.
COMMISSIONER

JEFF BRILLHART, P.E.
ASSISTANT COMMISSIONER

Bureau of Materials & Research
July 10, 2013

Her Excellency, Governor Margaret Wood Hassan
and the Honorable Council
State House
Concord, New Hampshire 03301

REQUESTED ACTION

Authorize the Department of Transportation to enter into an agreement with Terracon Consultants, Inc., Manchester, NH (Vendor Code 203553), for an amount not to exceed \$250,000.00 for the purpose of providing on-call Statewide Bridge Deck Condition Surveys, effective upon Governor and Council approval through December 31, 2015.

Funding is available in FY 2014 and FY 2015, and contingent upon the availability and continued appropriation of funds in FY 2016, as follows:

	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>
04-096-96-963515-3054 Consolidated Federal Aid			
046-500464 General Consultants Non-Benefit	\$100,000	\$100,000	\$50,000

The Consolidated Federal Funds, AU 3054, is utilized at this time to encumber funds for this request. Actual funding sources will be determined by each particular project incurring expenses as a result of this request.

EXPLANATION

The Department's Bureau of Materials & Research requires contracted services related to bridge deck condition surveys to supplement in-house capabilities on projects located throughout the State. These surveys are provided on an as-needed basis in response to requests from the Bureau of Bridge Design. The scope of work for these surveys includes visual observations, corrosion potential measurements, determination of the chloride content of the concrete, and other tests. The resulting report provides crucial data that designers consider when deciding between various replacement and rehabilitation options for the surveyed structure.

The selection process for this contract followed approved "prequalified low-bid" procedures that identified firms with the expertise and staff needed for successful performance of the specified services. Based on submitted qualifications, the Department extended invitations to bid to the three firms listed below. Prequalification materials and background information on these firms are on file at the Bureau of Materials & Research.

To enable proper comparison of bids, a sample project with hypothetical quantities of all testing to be conducted under the Agreement was provided to all bidders. The total bid for the sample project from each firm is provided below.

Firm	Rank	Bid Amount
Terracon Consultants, Inc	1	\$ 11,868
John Turner Consulting, Inc.	2	\$ 13,244
Wiss, Janney, Elstner Associates, Inc.	3	\$ 21,406

The firm of Terracon Consultants, Inc. submitted the lowest total bid and is recommended for this contract. The required services are to be provided, as assigned, at the unit prices bid, with a total fee not to exceed \$250,000.00.

This agreement has been approved by the Attorney General as to form and execution. 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 Bridge Deck Condition Surveys as outlined above.

Sincerely,



Christopher D. Clement, Sr.
Commissioner

Attachments

**New Hampshire Department of Transportation
Statewide Bridge Deck Condition Surveys, Special Project 26260
CONTRACTOR BID SUMMARY**

ITEM NO.	QUANTITY	PAY UNIT	ITEMS	Ternison Consultants, Inc.		John Turner Consulting, Inc.		Wiss, Janney, Elstner Associates, Inc.	
				PER UNIT PRICE DOLLARS and CENTS	TOTAL AMOUNT (Quantity times Unit Price) DOLLARS and CENTS	PER UNIT PRICE DOLLARS and CENTS	TOTAL AMOUNT (Quantity times Unit Price) DOLLARS and CENTS	PER UNIT PRICE DOLLARS and CENTS	TOTAL AMOUNT (Quantity times Unit Price) DOLLARS and CENTS
1	166	EACH	Half Cell Corrosion Test Reading - Asphalt Overlay, including drilling through overlay and membrane.	\$ 20.00	\$ 3,360.00	\$ 15.00	\$ 2,520.00	\$ 42.50	\$ 7,140.00
2	86	EACH	Half Cell Corrosion Test Reading - Exposed Concrete	\$ 3.00	\$ 258.00	\$ 9.00	\$ 774.00	\$ 12.17	\$ 1,046.62
3	28	EACH 1/2" of DEPTH	Chloride Ion Content Test - Core Method of Sampling (Retained, Prepared & Tested)	\$ 55.00	\$ 1,540.00	\$ 30.00	\$ 840.00	\$ 85.67	\$ 2,386.76
4	32	EACH	Chloride Ion Content Test - Pulverized Method of Sampling (Retrieved, Prepared & Tested)	\$ 10.00	\$ 320.00	\$ 30.00	\$ 960.00	\$ 78.67	\$ 2,517.44
5	1,000	SQUARE FOOT	Delamination Survey	\$ 0.20	\$ 200.00	\$ 0.30	\$ 300.00	\$ 0.44	\$ 440.00
6	1,000	SQUARE FOOT	Membrane Resistivity Test	\$ 0.10	\$ 100.00	\$ 0.30	\$ 300.00	\$ 0.32	\$ 320.00
7	2	DAY	Traffic Control	\$ 550.00	\$ 1,100.00	\$ 1,000.00	\$ 2,000.00	\$ 478.00	\$ 956.00
8	32	HOUR	Flaggers	\$ 30.00	\$ 960.00	\$ 30.00	\$ 960.00	\$ 23.50	\$ 752.00
9	1	BRIDGE	Mobilization	\$ 1,400.00	\$ 1,400.00	\$ 1,200.00	\$ 1,200.00	\$ 2,385.00	\$ 2,385.00
10	1	NIGHT	Mobilization - Night Work	\$ 500.00	\$ 500.00	\$ 1,200.00	\$ 1,200.00	\$ 400.00	\$ 400.00
11	16	HOUR	Uniformed Local Officer w/culver	\$ 30.00	\$ 480.00	\$ 40.00	\$ 640.00	\$ 60.00	\$ 960.00
12	2	DAY	Arrow Board	\$ 50.00	\$ 100.00	\$ 100.00	\$ 200.00	\$ 50.00	\$ 100.00
13	1	EACH (set)	Report (Set of 5)	\$ 1,350.00	\$ 1,350.00	\$ 1,000.00	\$ 1,000.00	\$ 1,680.00	\$ 1,680.00
14	1	DAY	Variable Message Board	\$ 100.00	\$ 100.00	\$ 250.00	\$ 250.00	\$ 100.00	\$ 100.00
15	1	BRIDGE	Boat for Inspection Access	\$ 100.00	\$ 100.00	\$ 100.00	\$ 100.00	\$ 200.00	\$ 200.00
				Bid Grand Total	\$ 11,688.00	Bid Grand Total	\$ 13,244.00	Bid Grand Total	\$ 21,405.82



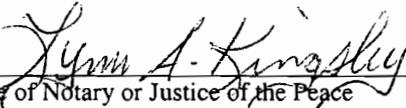
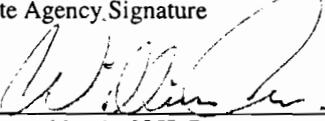
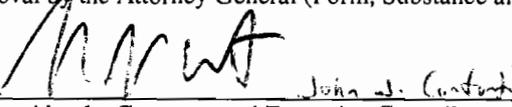
Subject: NHDOT Statewide Bridge Deck Condition Surveys, Special Project 26260 **FORM NUMBER P-37 (version 1/09)**

AGREEMENT

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

GENERAL PROVISIONS

1. IDENTIFICATION.

1.1 State Agency Name <u>Department of Transportation</u>		1.2 State Agency Address <u>PO Box 483, 7 Hazen Drive, Concord, NH 03302-0483</u>	
1.3 Contractor Name <u>Terracon Consultants, Inc.</u>		1.4 Contractor Address <u>77 Sundial Avenue, Suite 401 W, Manchester, NH 03103</u>	
1.5 Contractor Phone Number <u>(603) 647-9700</u>	1.6 Account Number <u>015-096-3054-046-0464</u>	1.7 Completion Date <u>December 31, 2015</u>	1.8 Price Limitation <u>\$250,000.00</u>
1.9 Contracting Officer for State Agency <u>Alan D. Rawson</u>		1.10 State Agency Telephone Number <u>(603) 271-3151</u>	
1.11 Contractor Signature 		1.12 Name and Title of Contractor Signatory <u>Ryan R. Roy P.E. Senior Principal Division Manager</u>	
1.13 Acknowledgement: State of <u>NH</u> , County of <u>Hillsborough</u> On <u>June 24, 2013</u> , before the undersigned officer, personally appeared the person <u>identified</u> in block 1.12, or satisfactorily proven to be the person whose name is signed in block 1.11, and acknowledged that the <u>attached</u> document in the capacity indicated in block 1.12.			
1.13.1 Signature of Notary Public or Justice of the Peace [Seal] 			
1.13.2 Name and Title of Notary or Justice of the Peace LYNN A. KINGSLEY, Notary Public My Commission Expires March 20, 2018			
1.14 State Agency Signature 		1.15 Name and Title of State Agency Signatory William J. Cass, P.E. Director of Project Development NHDOT	
1.16 Approval by the N.H. Department of Administration, Division of Personnel (if applicable) By: _____ Director, On: _____			
1.17 Approval by the Attorney General (Form, Substance and Execution) By:  On: <u>7/18/13</u>			
1.18 Approval by the Governor and Executive Council By: _____ On: _____			



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

3. EFFECTIVE DATE/COMPLETION OF SERVICES.
3.1 Notwithstanding any provision of this Agreement to the contrary, and subject to the approval of the Governor and Executive Council of the State of New Hampshire, this Agreement, and all obligations of the parties hereunder, shall not become effective until the date the Governor and Executive Council approve this Agreement ("Effective Date").
3.2 If the Contractor commences the Services prior to the Effective Date, all Services performed by the Contractor prior to the Effective Date shall be performed at the sole risk of the Contractor, and in the event that this Agreement does not become effective, the State shall have no liability to the Contractor, including without limitation, any obligation to pay the Contractor for any costs incurred or Services performed. Contractor must complete all Services by the Completion Date specified in block 1.7.

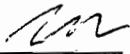
4. CONDITIONAL NATURE OF AGREEMENT. Notwithstanding any provision of this Agreement to the contrary, all obligations of the State hereunder, including, without limitation, the continuance of payments hereunder, are contingent upon the availability and continued appropriation of funds, and in no event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

5. CONTRACT PRICE/PRICE LIMITATION/PAYMENT.
5.1 The contract price, method of payment, and terms of payment are identified and more particularly described in EXHIBIT B which is incorporated herein by reference.
5.2 The payment by the State of the contract price shall be the only and the complete reimbursement to the Contractor for all expenses, of whatever nature incurred by the Contractor in the performance hereof, and shall be the only and the complete compensation to the Contractor for the Services. The State shall have no liability to the Contractor other than the contract price.
5.3 The State reserves the right to offset from any amounts otherwise payable to the Contractor under this Agreement those liquidated amounts required or permitted by N.H. RSA 80:7 through RSA 80:7-c or any other provision of law.

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

6. COMPLIANCE BY CONTRACTOR WITH LAWS AND REGULATIONS/ EQUAL EMPLOYMENT OPPORTUNITY.
6.1 In connection with the performance of the Services, the Contractor shall comply with all statutes, laws, regulations, and orders of federal, state, county or municipal authorities which impose any obligation or duty upon the Contractor, including, but not limited to, civil rights and equal opportunity laws. In addition, the Contractor shall comply with all applicable copyright laws.
6.2 During the term of this Agreement, the Contractor shall not discriminate against employees or applicants for employment because of race, color, religion, creed, age, sex, handicap, sexual orientation, or national origin and will take affirmative action to prevent such discrimination.
6.3 If this Agreement is funded in any part by monies of the United States, the Contractor shall comply with all the provisions of Executive Order No. 11246 ("Equal Employment Opportunity"), as supplemented by the regulations of the United States Department of Labor (41 C.F.R. Part 60), and with any rules, regulations and guidelines as the State of New Hampshire or the United States issue to implement these regulations. The Contractor further agrees to permit the State or United States access to any of the Contractor's books, records and accounts for the purpose of ascertaining compliance with all rules, regulations and orders, and the covenants, terms and conditions of this Agreement.

7. PERSONNEL.
7.1 The Contractor shall at its own expense provide all personnel necessary to perform the Services. The Contractor warrants that all personnel engaged in the Services shall be qualified to perform the Services, and shall be properly licensed and otherwise authorized to do so under all applicable laws.
7.2 Unless otherwise authorized in writing, during the term of this Agreement, and for a period of six (6) months after the Completion Date in block 1.7, the Contractor shall not hire, and shall not permit any subcontractor or other person, firm or corporation with whom it is engaged in a combined effort to perform the Services to hire, any person who is a State employee or official, who is materially involved in the procurement, administration or performance of this Agreement. This provision shall survive termination of this Agreement.
7.3 The Contracting Officer specified in block 1.9, or his or her successor, shall be the State's representative. In the event of any dispute concerning the interpretation of this Agreement, the Contracting Officer's decision shall be final for the State.

Contractor Initials 
Date 6/29/13

8. EVENT OF DEFAULT/REMEDIES.

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

- 8.1.1 failure to perform the Services satisfactorily or on schedule;
 - 8.1.2 failure to submit any report required hereunder; and/or
 - 8.1.3 failure to perform any other covenant, term or condition of this Agreement.
- 8.2 Upon the occurrence of any Event of Default, the State may take any one, or more, or all, of the following actions:
- 8.2.1 give the Contractor a written notice specifying the Event of Default and requiring it to be remedied within, in the absence of a greater or lesser specification of time, thirty (30) days from the date of the notice; and if the Event of Default is not timely remedied, terminate this Agreement, effective two (2) days after giving the Contractor notice of termination;
 - 8.2.2 give the Contractor a written notice specifying the Event of Default and suspending all payments to be made under this Agreement and ordering that the portion of the contract price which would otherwise accrue to the Contractor during the period from the date of such notice until such time as the State determines that the Contractor has cured the Event of Default shall never be paid to the Contractor;
 - 8.2.3 set off against any other obligations the State may owe to the Contractor any damages the State suffers by reason of any Event of Default; and/or
 - 8.2.4 treat the Agreement as breached and pursue any of its remedies at law or in equity, or both.

9. DATA/ACCESS/CONFIDENTIALITY/PRESERVATION.

- 9.1 As used in this Agreement, the word "data" shall mean all information and things developed or obtained during the performance of, or acquired or developed by reason of, this Agreement, including, but not limited to, all studies, reports, files, formulae, surveys, maps, charts, sound recordings, video recordings, pictorial reproductions, drawings, analyses, graphic representations, computer programs, computer printouts, notes, letters, memoranda, papers, and documents, all whether finished or unfinished.
- 9.2 All data and any property which has been received from the State or purchased with funds provided for that purpose under this Agreement, shall be the property of the State, and shall be returned to the State upon demand or upon termination of this Agreement for any reason.
- 9.3 Confidentiality of data shall be governed by N.H. RSA chapter 91-A or other existing law. Disclosure of data requires prior written approval of the State.

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

Report shall be identical to those of any Final Report described in the attached EXHIBIT A.

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

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

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

14. INSURANCE.

- 14.1 The Contractor shall, at its sole expense, obtain and maintain in force, and shall require any subcontractor or assignee to obtain and maintain in force, the following insurance:
 - 14.1.1 comprehensive general liability insurance against all claims of bodily injury, death or property damage, in amounts of not less than \$250,000 per claim and \$2,000,000 per occurrence; and
 - 14.1.2 fire and extended coverage insurance covering all property subject to subparagraph 9.2 herein, in an amount not less than 80% of the whole replacement value of the property.
- 14.2 The policies described in subparagraph 14.1 herein shall be on policy forms and endorsements approved for use in the State of New Hampshire by the N.H. Department of Insurance, and issued by insurers licensed in the State of New Hampshire.
- 14.3 The Contractor shall furnish to the Contracting Officer identified in block 1.9, or his or her successor, a certificate(s) of insurance for all insurance required under this Agreement. Contractor shall also furnish to the Contracting Officer identified in block 1.9, or his or her successor, certificate(s) of insurance for all renewal(s) of insurance required under this Agreement no later than fifteen (15) days prior to the expiration date of each of the insurance policies. The certificate(s) of insurance and any renewals thereof shall be

Contractor Initials
Date 6/24/13

attached and are incorporated herein by reference. Each certificate(s) of insurance shall contain a clause requiring the insurer to endeavor to provide the Contracting Officer identified in block 1.9, or his or her successor, no less than ten (10) days prior written notice of cancellation or modification of the policy.

15. WORKERS' COMPENSATION.

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

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

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

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

18. AMENDMENT. This Agreement may be amended, waived or discharged only by an instrument in writing signed by the parties hereto and only after approval of such amendment, waiver or discharge by the Governor and Executive Council of the State of New Hampshire.

19. CONSTRUCTION OF AGREEMENT AND TERMS.

This Agreement shall be construed in accordance with the laws of the State of New Hampshire, and is binding upon and inures to the benefit of the parties and their respective successors and assigns. The wording used in this Agreement is the wording chosen by the parties to express their mutual

intent, and no rule of construction shall be applied against or in favor of any party.

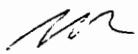
20. THIRD PARTIES. The parties hereto do not intend to benefit any third parties and this Agreement shall not be construed to confer any such benefit.

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

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

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

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

Contractor Initials 
Date 6/27/13

Note: The "Department" as referenced herein refers to the State of New Hampshire, Department of Transportation.

A. LOCATION AND DESCRIPTION OF PROJECT

The Contractor shall provide and utilize equipment necessary to perform bridge deck condition surveys as outlined in this Agreement and/or as directed at various locations throughout the state.

On occasion, condition surveys of concrete structures other than bridge decks may be assigned.

The Department does not guarantee that any work will be performed under this Agreement.

B. CONTRACTOR PERSONNEL

The Project Manager for the Contractor is **Wendell A. Shedd or Kevin J. Brigandi**. The Project Manager shall be responsible for all aspects of the job and is the primary contact for work conducted under this Agreement. The Field Supervisor for the Contractor is **Wendell A. Shedd or Kevin J. Brigandi**. The Field Supervisor shall be on site at all times work is conducted on a structure, and shall directly oversee the field work, including all required mobilization and traffic control operations. Neither the Project Manager nor the Field Supervisor shall be removed from his or her capacity without the written consent of the Department.

C. MATERIAL FURNISHED BY THE DEPARTMENT OF TRANSPORTATION

The Department will furnish the following data to the Contractor for each assignment:

1. Written *Notice to Proceed*.
2. Available plans of the existing structure.
3. Instructions regarding the type and frequency of tests to be performed on each structure.
4. Estimated value of work to be conducted under this assignment. This value is not to be exceeded without written authorization.

In addition, the Department will provide direct payment for the services of uniformed State Police officer(s) when required.

D. WORK SCHEDULE

For each assignment, the Contractor shall begin testing within fourteen (14) calendar days of receipt from the Department of a *Notice to Proceed* and related material as described above. The Contractor shall complete the assigned services without delay unless unable to do so for causes not under the Contractor's control as determined by the Department.

The Contractor shall maintain close coordination with the Department at all times. The Contractor shall notify the Department three (3) days prior to the start of field operations.

The Contractor's sequence of operations and performance of work under the terms of this Agreement may 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.

E. SUBMISSION OF REPORTS, PLANS AND DOCUMENTS

The Contractor shall prepare and submit five (5) copies of a bound Final Report to the Department's Bureau of Materials and Research within fourteen (14) calendar days from the completion of the

field testing/sampling on each project assignment. The Contractor shall also provide a digital copy of the report as specified in Article G, Section 6.

When an assignment includes multiple structures, it is expected that chloride testing and report generation will occur concurrent with field work such that the report for each structure is completed within 14 days of completion of field work for that structure unless waived in writing by the Department.

This report shall include, but not necessarily be limited to, the information described in Article G, Section 6 below.

F. DATE OF COMPLETION

The date of completion for all technical services rendered under this Agreement shall be December 31, 2015.

G. SCOPE OF WORK

1. **General** - The Contractor shall follow the general sequence of work activity for condition surveys as summarized below:

- 1.1. Preliminary

- 1.1.1. Receive *Notice to Proceed* and related material from the Department.

- 1.1.2. Visit the Site.

- 1.1.2.1. Make visual observations of the condition of the bridge deck or other assigned structure. Photograph visible areas of distress as outlined in Section 4.1.1 below.

- 1.1.2.2. Access for visual observations on water crossings may require the use of a boat. A separate Item fee is included in this Agreement to address this requirement. The boat shall have adequate power, stability and anchoring to assure complete documentation of the visual condition of the structure. The Contractor shall notify the Department of the scheduled date of any inspection requiring the use of a boat at least three (3) days in advance of the inspection, and shall allow a representative from the Department to accompany the Contractor during the inspection.

- 1.1.3. Develop *Traffic Control Plan* (see Section 2 below) and submit for approval.

- 1.1.4. Determine layout of test locations based on the Department's stated frequency of testing and visual observations. Submit a proposed sampling plan and a summary of visual observations with photos to the Department for approval. The submittal shall indicate areas of concern where additional tests may be appropriate. Test locations shall be numbered in accordance with Section 5.3.5 below.

- 1.1.5. Schedule and attend a pre-survey meeting with the Department prior to the start of work to ensure that the Contractor understands and complies with the requirements of the assignment. This requirement may be waived at the discretion of the Department. Pre-survey meetings will be held at the Bureau of Materials & Research building in Concord, NH.

- 1.2. Field Work
 - 1.2.1. Mobilization
 - 1.2.2. Lay out sign package and other traffic control devices in accordance with the approved *Traffic Control Plan* (refer to Section 2 below).
 - 1.2.3. Lay out test locations, using the standard numbering system outlined in Section 6.3.5 below.
 - 1.2.4. Conduct testing/sampling.
 - 1.2.5. Patch holes in concrete after each day's testing using fast setting patching mortar as included on the Department's *Qualified Products List*, Item 520A. Patch holes in bituminous pavement after each day's testing with cold patch.
- 1.3. Laboratory Testing
 - 1.3.1. Prepare samples.
 - 1.3.2. Perform chloride ion content or other tests (refer to Section 4.6 below).
- 1.4. Report
 - 1.4.1. Prepare and submit the bridge deck condition report as outlined in Section 6 below.

2. **Traffic Control**

- 2.1. The Contractor is responsible for providing personnel and traffic control necessary to perform the work in accordance with the current edition of Part VI of the *Manual on Uniform Traffic Control Devices (US DOT, FHWA)*, NHDOT Flagger and Uniformed Officer guidelines and policies (<http://www.nh.gov/dot/business/contractors.htm>), and any traffic control requirements ordered by the Department. Traffic control includes furnishing, placing, and maintaining the traffic control package for the duration of fieldwork on each assignment.
- 2.2. Prior to starting work, the Contractor shall submit a proposed *Traffic Control Plan* to the Department's Highway Maintenance District in which the work will be performed. On Turnpike projects, the Contractor shall submit the proposed *Traffic Control Plan* to the Bureau of Turnpikes. The *Traffic Control Plan* shall include the proposed use of flaggers or uniformed officers. A copy of the approved *Traffic Control Plan* shall be provided to the Bureau of Materials & Research prior to the start of work.
- 2.3. The Contractor shall abide by any and all restrictions or requirements imposed by the applicable Highway Maintenance District or Bureau of Turnpikes. The Contractor may be required to delay or suspend work, as directed, that interferes with traffic during commuting hours, periods of inclement weather, or periods of high traffic volumes which result or could result in excessive backup or create unsafe traffic operations. At times the Contractor may be required to coordinate traffic control with other Contractors performing work in the area of the assigned structure.
- 2.4. The Contractor shall provide all labor, materials and devices needed to fulfill the traffic control plan as approved. All equipment shall meet the requirements of the MUTCD and shall comply with NCHRP 350 and MASH; see Special Attention on page 13 of this Exhibit.

- 2.5. In compact zones, the Contractor shall obtain permission from, and coordinate all work with, local police authorities.
- 2.6. Where uniformed officer(s) are required for traffic control, the Contractor shall be responsible for scheduling and coordinating the services. **On Interstate, Turnpike and other four-lane divided highways, the Contractor shall attempt to utilize State Police forces (1-800-443-5268) before arranging for the use of local officers.**
 - 2.6.1. The Department will pay directly for the services of State Police officers when utilized. The Contractor's Field Supervisor shall sign the *Paid Detail Voucher* of the State Police officer according to the actual number of hours the officer is present, such that the officer can submit the bill directly to the Department's Bureau of Materials & Research. The Contractor shall pay directly for the services of uniformed Police officers other than State Police when required, and will be reimbursed by the Department in accordance with this Agreement.
- 2.7. The Department requires that flag persons receive training in proper flagging techniques and safety procedures by the Association of General Contractors of New Hampshire or by other approved source.
- 2.8. When approved or ordered, the Contractor shall provide and utilize arrow boards and/or variable message signs meeting the requirements of the MUTCD .

3. **Mobilization**

- 3.1. Mobilization shall consist of preparatory work and operations including, but not limited to, those necessary for the movement of personnel, equipment, supplies, and incidentals to the site of work, and for all other work and operations which must be performed or for which costs are incurred prior to beginning work.
- 3.2. There exists the possibility that heavy daytime traffic volumes at some sites may require that a bridge deck condition survey be conducted at night. A separate Item fee is included in this Agreement to cover the cost of any additional mobilization, traffic control, equipment, labor, lighting, or other expenses incurred as a result of nighttime operations when directed by the Department.

4. **Visual Documentation and Test Criteria** - The Contractor shall conduct evaluation, testing, and sampling as specified below. **Not all tests will necessarily be conducted on each assignment. The testing criteria and frequency at each site shall be as ordered by the Department (refer to 1.1.4 above).**

4.1. Visual Observations & Photographs

- 4.1.1. Visual observations and photographs shall be collected during a preliminary visit to the site as described in 1.1 above.
- 4.1.2. Document, with photographs, the location and extent of any cracking, spalling, scaling, efflorescence, staining or patching on the bridge deck or other assigned structure. For bridge decks, observations shall include the condition of deck surface and underside, brushcurbs and/or sidewalks, fascia, and soffits. Extraneous photographs not related to the condition of these areas should be avoided.

Photographs shall be numbered and indicated on the plan in accordance with Section 5 below. Locations of areas of distress shall be referenced to test locations. Camera equipment shall have adequate resolution and telephoto capabilities to assure that meaningful images can be obtained.

- 4.2. Electrical Continuity Tests
 - 4.2.1. Confirm electrical continuity of the reinforcing steel prior to conducting membrane resistivity or half -cell potential testing.
 - 4.2.1.1 Electrical continuity shall be confirmed for each deck segment separated by an expansion joint or other discontinuity.
- 4.3. Membrane Resistivity Tests
 - 4.3.1 Reference ASTM D 3633
 - 4.3.2 Plot resistivity results on a separate scale plan from half-cell potential tests.
- 4.4. Half Cell Potential of Reinforcing Steel (Volts)
 - 4.4.1. Half-cell testing shall be performed in accordance with ASTM C 876.
 - 4.4.2. Potential measurements shall not be made when the concrete surface is frozen or when there is standing water on the surface to be tested.
 - 4.4.3. Drill holes through any bituminous pavement and waterproofing membrane to allow the half-cell to contact the top of the concrete deck. Measure and record the thickness of the pavement at each location. Although pavement depths in excess of those shown on plans are sometimes encountered, there will be no additional compensation for drilling.
 - 4.4.4. Measure and record half-cell potentials in accordance with ASTM C 876.
- 4.5. Delamination Survey
 - 4.5.1. Reference ASTM D 4580.
 - 4.5.2. The Department will be responsible for the removal of the bituminous concrete overlay when necessary to allow for a delamination survey.
 - 4.5.3. Document the delaminated areas on a scale plan of the deck. Locate delaminated areas in reference to test locations or by dimension. Report the total delaminated area of each deck feature (lane, sidewalk, brushcurb or island), and the percentage of that feature which is delaminated. Identify delaminated areas that have caused concrete to be missing.
 - 4.5.4. The delamination survey shall include sidewalk areas or other structures when identified in the scope of work for a given assignment.
- 4.6. Chloride Ion Content Testing
 - 4.6.1. Sample and test for chloride ion content in accordance with either AASHTO T 260 or ASTM C1152, both as modified below. The Item fee for Core Method of sampling will be paid for each half-inch (1/2") depth of core retrieved, prepared and tested in the laboratory. The Item fee for Pulverizing Method of sampling covers a single pulverized sample retrieved close to the upper reinforcing mat as outlined in 4.6.4 below, prepared and tested in the laboratory.

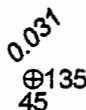
- 4.6.2. Chloride ion content samples shall be obtained from holes drilled at, or adjacent to, selected half-cell potential holes in accordance with the Contractor's approved test plan or as ordered. Costs associated with drilling through pavement and membrane for chloride sampling shall be subsidiary.
- 4.6.3. Prior to obtaining chloride samples, the Contractor shall determine the depth to the top of the reinforcing steel and the total deck thickness from the available plans. The depth of the reinforcing steel shall be verified by the use of a pachometer or test core(s).
- 4.6.4. Every effort shall be made to avoid drilling into or through the reinforcing steel. Use a suitable rebar locator to determine the lateral location of steel. If reinforcement is encountered, drilling shall be discontinued and, if additional depth is required, a complete sample shall be obtained adjacent to the first attempt. The encountered reinforcement shall be used as a reference to locate the second core hole. Additional drilling required to avoid the reinforcing steel and obtain a suitable sample for testing shall be at no cost to the Department.
- 4.6.5. The Department may request that a split-sample be provided for comparison testing. Costs associated with providing this sample will be subsidiary.
- 4.6.6. Chloride Ion Content Test – Core Method of Sampling - Using a two-inch (2") diameter core drill, obtain a continuous core to the depth specified in the approved sampling plan or as ordered. It may be necessary to drill just below the required depth to obtain a suitable sample. Retrieve and carefully label the core sample to avoid confusion of samples during transport.
- 4.6.6.1. Lab Work - Chloride Ion Content shall be determined using the procedure for Acid-Soluble Chloride Ion Content as described in AASHTO T260, or ASTM C 1152. The entire core sample shall be sliced into wafers that represent the full depth of the sample in half-inch (1/2") increments. Wafers shall be pulverized to obtain samples representing each half-inch (1/2") of depth at the sample location. Carefully label samples during all stages of preparation and testing to avoid confusing them with samples from other depths or locations. Determine the chloride ion content in lb/yd³ for each half-inch (1/2") layer and record the results in a table as shown in Figure 5. The value corresponding to a depth of one-half inch to one inch (1/2" – 1") above the reinforcing steel shall be recorded on the scale plan (Figure 1).
- 4.6.7. Chloride Ion Content Test – Pulverizing Method of Sampling - When the Pulverizing Method of Sampling is ordered, a single dry sample shall be collected as follows. Drill a hole one-and-one-quarter to one-and-one-half inches (1¼-1½") in diameter to a depth corresponding to one (1) inch above the top of the upper reinforcing steel mat. Completely vacuum the hole and surrounding area, ensuring that the area to be tested remains completely dry. Using a one (1) inch diameter bit, continue drilling for an additional one-half (½) inch of depth. Retain all pulverized material within this final one-half (½) inch of depth for laboratory testing. Exercise extreme care during the pulverizing operation to avoid contamination from material located above the sample depth. Label individual samples to avoid confusion during transport or testing.

- 4.6.7.1. **Lab Work** – Chloride Ion Content shall be determined using the procedure for Acid-Soluble Chloride Ion Content as described in AASHTO T 260 or ASTM C 1152. Carefully label samples during all stages of preparation and testing to avoid confusing them with samples from other locations. Determine the chloride ion content in lb/yd³. Record the results in a table as shown in Figure 5 and on the scale plan.
- 4.7. On occasion, adequate evaluation of a structure may call for a test method that is not addressed in this contract. When required, additional test methods may be added under this contract at prices determined as specified in the NHDOT Standard Specifications for Road & Bridge Construction in Section 109.04. The specifications can be found at www.nhdot.com.
- 4.8. Document and report the location of any deteriorated concrete found during the performance of half-cell testing or chloride sampling and describe the evidence of deterioration.
5. **Access to work** – Performance of this contract is expected to require the use of a boat, ladders, and other non-specialized access equipment. On occasion an assignment may require the use of specialized skills, or equipment such as man lifts, snooper trucks, etc. When required, as determined by the Engineer, this additional work will be paid for as per Section 109.04 of the NHDOT Standard Specifications for Road & Bridge Construction.
6. **Report** – Five (5) paper copies of the condition survey report shall be prepared and submitted to the Department’s Bureau of Materials & Research. The report shall also be provided in digital (PDF) format. Maps and photographs shall also be provided as separate files. Maps shall be provided in PDF format. Photographs shall be provided in JPEG format with sufficient resolution for clear enlargement to 8”x10” size. The report shall contain the following:
- 6.1. **Project Identification** - Show the town/city, bridge # (given in *Notice to Proceed*), and name of crossing (e.g. Campton, Bridge No. 134/115, I-93 NB over Mad River) on the report cover and on each page/figure/table in the report. Include the date of the survey and Contractor’s name on the report cover.
- 6.2. **Staff**- Provide a list of personnel who participated in the assignment and their role in this work.
- 6.3. **Narrative** - Include a narrative outlining and summarizing the condition survey and observations of deck condition.
- 6.4. **Contour Map** - Prepare an Equipotential Contour map in accordance with ASTM C 876 as modified below.
- 6.4.1. The maximum size of each plan sheet shall be 11” x 17”. Use multiple sheets with match lines if required for larger structures.
- 6.4.2. Scale plans shall be drawn using a scale large enough to clearly depict the data collected, and shall not be smaller than 1”=10’ unless waived in writing by the Department.
- 6.4.3. The minimum font size used on scale plans, including test values, shall be size nine (9), (e.g. size nine (9)).
- 6.4.4. The font type used on scale plans shall be Times New Roman (e.g. Times New Roman), Arial (e.g. Arial), or other font approved by the Department.

6.4.5. Plot the location of all tests using the following numbering system.

 This example refers to a sample location that is 45 feet from the curbline and 135 feet from the end of the bridge deck. (Note: Modification of this numbering protocol may be necessary for structures other than decks.)

6.4.6. Indicate corrosion potential readings as follows:

 This example indicates a corrosion potential reading of -0.031 V. It is not necessary to include the negative sign or the units on the plan.

6.4.7. Indicate the chloride ion content that was found between ½ and 1 inch above the upper mat of reinforcing steel. Show the result as follows:

 This example indicates a chloride content of 0.18 lb/cy. The box is color coded to indicate the appropriate corrosion range as shown below:

- Less than 1.0 lb/yd³ = Normal (blue)
- 1.0 to 1.9 lb/yd³ = Threshold (purple)
- 2.0 and greater lb/yd³ = Active (gray)

It is not necessary to include chloride ion content units on the plan.

6.4.8. Equipotential Contour intervals shall depict the following ranges. Areas within those ranges shall be shaded as noted: (see Figure 1)

- Less negative than -0.200 V = Normal (no shading)
- -0.200 to -0.299 V = Inconclusive Corrosion (solid green)
- -0.300 V or more negative = Active Corrosion (solid red)

The contours shall be depicted separately and independently for the brushcurbs/sidewalks as shown in Figure 1.

6.4.9. Indicate the longitudinal and transverse slope of the deck, the direction of traffic flow, and the direction of North.

6.4.10. Indicate the location of any joints or underlying piers on the scale plan.

6.4.11. Indicate the date of the survey on the scale plan.

6.4.12. Indicate the location of the photographs on the scale plan.

6.5. Delamination Survey Map – refer to Section 4.5 above.

6.6. Tabulate corrosion potential measurements by lane, including averages as shown in the sample table in Figure 2. Summarize the number and percent of each lane area that is within each of the corrosion ranges identified in Section 6.4.8 above.

- 6.7. Summarize corrosion potential measurements for the entire deck using area percentages as shown in the sample summary table in Figure 3.
- 6.8. Summarize, in table form, areas of delamination as shown in the sample table in Figure 4.
- 6.9. Tabulate the results of all chloride content testing as shown in the sample table in Figure 5.
- 6.10. Photographs - Include numbered photographs, with captions, in accordance with Section 4.1.2 above.

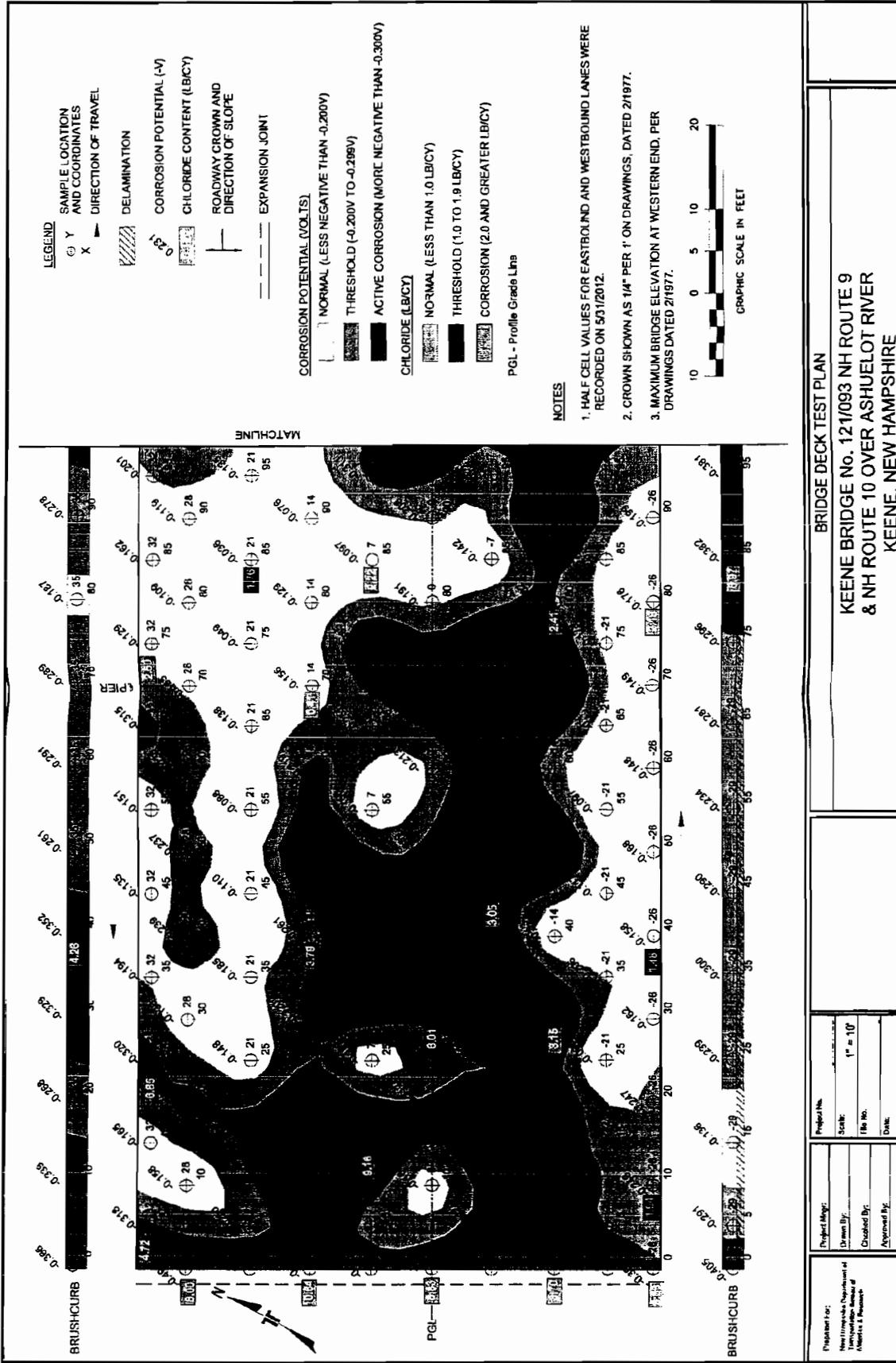


Figure 1 - Sample Contour Map

SAMPLE

Typical table. Complete for each lane.

**Corrosion Potential and Chloride Test Location
 Southbound Lane**

Sample Location				Corrosion Potential (-V)	*Chloride Content Test
N of SW Corner	E of SW Corner				
2	7			0.153	
12	7			0.273	
22	7			0.176	
32	7			0.191	
42	7			0.352	
52	7			0.177	
62	7			0.116	C
72	7			0.136	
82	7			0.113	
92	7			0.118	C
			High:	0.352	
			Low:	0.113	
			Average:	0.181	

* Indicates that chloride content test was conducted at this location

Corrosion Potential Reading	# of tests	Percent
Less negative than -0.200 volts (normal)	8	80.0%
-0.200 to -0.299 volts (Inconclusive Corrosion)	1	10.0%
More negative than 0.300 volts (Active Corrosion)	1	10.0%
Total	10	

Figure 2

Corrosion Potential and Delamination Summaries by Area

Deck (Excludes Brushcurbs)

AREA	Location	Corrosion Potentials (Square Feet)		
		Normal	Inconclusive Corrosion	Active Corrosion
		(<-0.200 v)	(-0.200v to -0.299v)	(>-0.300v)
	SB Lane	849	548	126
	NB Lane	511	773	239
	Center Lane	291	538	694
	Deck Total	1651	1859	1059

PERCENTAGE	Location	Corrosion Potentials (Percent)		
		Normal	Inconclusive Corrosion	Active Corrosion
	SB Lane	19%	12%	3%
	NB Lane	11%	17%	6%
	Center Lane	6%	12%	15%
	Deck Total	36%	41%	24%

Brushcurbs/Sidewalks

AREA	Location	Corrosion Potentials (Square Feet)		
		Normal	Inconclusive Corrosion	Active Corrosion
		(<-0.200 v)	(-0.200v to -0.299v)	(>-0.300v)
	West side	0	114	13
	East side	0	0	127

PERCENT	Location	Corrosion Potentials (Percent)		
		Normal	Inconclusive Corrosion	Active
	West side	0	89%	11%
	East side	0	0%	100%

Figure 3

Delamination Survey Summary

Brushcurbs/Sidewalks

Location	Delaminated Area	
	Square Feet	Percent
West side	10	<1.0%
East side	0	0%

Figure 4

Chloride Content Summary (lb/yd³)

Sample Depth	* Sample #				
	62/7	92/7			
2.5 - 3.0" above					
2.0 - 2.5" above	5.22	3.75			
1.5 - 2.0" above	3.54	3.33			
1.0 - 1.5" above	2.05	2.34			
0.5 - 1.0" above	1.01	1.76	1.95	1.35	
0 - 0.5" above	0.32	1.56			
Estimated Reinforcement Depth					
0 - 0.5" below		0.82			
0.5 - 1.0" below					
1.0 - 1.5" below					
1.5 - 2.0" below					
2.0 - 2.5" below					
2.5 - 3.0" below					

* 62/7 refers to a sample located at 62 feet North of SW corner and 7 feet East of SW corner as in the table in figure 2.

Figure 5

SPECIAL ATTENTION**TRAFFIC CONTROL DEVICES CRASH WORTHINESS COMPLIANCE
WITH NCHRP REPORT 350 AND MASH**

The American Association of State Highway and Transportation Officials (AASHTO) recently published the Manual for Assessing Safety Hardware (MASH). The main objective of MASH is to present uniform guidelines for the crash testing of both permanent and temporary highway safety features and evaluation criteria to assess test results. The need for updated crash criteria was based primarily on the changes to the vehicle fleet since the publication of National Cooperative Highway Research Program (NCHRP) Report 350.

IMPORTANT: Any hardware that was designed, tested and accepted prior to January 1, 2011 under the National Cooperative Highway Research Program (NCHRP) Report 350 criteria may continue to be used without retesting. As of January 1, 2011, all new or revised highway safety hardware must be tested or retested and accepted using MASH criteria.

Hardware tested under MASH should be considered for use but there is no requirement to use or replace hardware that was accepted prior to January 1, 2011 under NCHRP Report 350.

The following is a summary of work zone traffic control devices categories, and their crash testing acceptance requirements, titled "Recommended Procedures for the Safety Performance Evaluation of Highway Features," testing and evaluation criteria as implemented by the AASHTO-FHWA Agreement (350 Agreement) dated July 1, 1998. These categories and associated requirements also apply to newly designed or revised devices that would now fall under MASH testing criteria.

Category I: Small, lightweight devices that are known to be crash-worthy from crash testing or years of demonstrable safe operational performance. These include plastic or rubber cones, tubular markers, flexible delineators, and plastic drums with no lights, batteries, signs, etc. added. For devices to be included in this category there must be virtually no potential that they will penetrate windshields, cause tire damage, or have a significant effect on the control or trajectory of an impacting vehicle. These devices will be allowed based upon developers self certification.

Category II: Devices that are not expected to produce significant vehicular velocity change, but may be otherwise hazardous. All or parts of the devices may be substantial enough to penetrate a windshield or injure a worker or they may cause instability when driven over or become lodged under a vehicle. The total mass of a Category II device must be less than 45 kg. Examples of this category are barricades, portable sign supports, intrusion detectors and alarms and drums, vertical panels, or cones with lights.

Category III: Devices expected to cause significant velocity change or other potentially harmful reactions in impacting vehicles and Category II devices with a mass greater than 45 kg. Examples of this category are Truck-mounted attenuators (TMA), portable crash cushions and Portable concrete barrier (requires appropriate sized pin and loop or better connection).

Category IV: Crashworthy installations of Category IV devices are encouraged, though not mandated. Examples of this category are portable, usually trailer mounted devices such as area light supports, flashing arrow panels/arrows displays, temporary traffic signals and changeable message signs. However, these types of devices combined with TMA are considered Category III devices.

All category I, II, and III project work zone traffic control devices in use, except portable concrete barrier that transfers tension and moment from segment to segment, shall conform to the testing and evaluation criteria as outlined above. Devices not conforming to the criteria shall be replaced with conforming devices at no expense to the Department.

The work required under the terms of this AGREEMENT shall be paid for in accordance with the following schedule and stipulations:

1. The total cost of all work, expenses and profit under this AGREEMENT shall not exceed \$250,000.00.

5.5 The rates tabulated in the Item Fee Schedule shall include all charges attributed to direct costs, fringe benefits, payroll taxes, overhead, direct expenses and profit and shall be used in billing for all work done under this AGREEMENT. Incidental activities related to work conducted under this AGREEMENT but not specifically listed below, including but not limited to, site reconnaissance, travel expenses, meetings, traffic control planning, visual and photographic documentation, electrical continuity confirmation, bituminous overlay measurements, drilling, patching, and laboratory testing, are considered subsidiary to the Item Fees provided under this Agreement.

5.6 Payments on account of the fee for services rendered under this AGREEMENT will be made by the DEPARTMENT based on a completely-itemized bill submitted by the Contractor at the successful completion of each assignment.

5.7 The Contractor shall maintain adequate cost records for all work performed under this AGREEMENT. All records and other evidence pertaining to costs incurred shall be made available at all reasonable times during the AGREEMENT period and for three (3) years from the date of final voucher payment for examination by the STATE, Federal Highway Administration, or other authorized representatives of the Federal Government (if utilized on a Federally funded project), and copies thereof shall be furnished if requested. Applicable cost principles are contained in the Federal Acquisition Regulation (FAR) in Title 48 of the Code of Federal Regulations (Subpart 31.2 and Subpart 31.105).

5.8 Fee Schedule

In consideration of the terms and obligations of this AGREEMENT, the State, through the Department, hereby agrees to pay and the Contractor agrees to accept, as full compensation for all services rendered to the satisfaction of the Department under this AGREEMENT, except as otherwise herein provided, the fees provided below. Said fees shall be considered full compensation for the work described in this AGREEMENT.

ITEM FEE SCHEDULE (Unit)

1.	Half Cell Corrosion Test Reading - Asphalt Overlay, including drilling through any overlay and membrane as necessary (Each)	<u>\$20.00</u>
2.	Half Cell Corrosion Test Reading - Exposed Concrete (Each)	<u>\$3.00</u>
3.	Chloride Ion Content Test – Core Method of Sampling, Retrieved, prepared, and tested (Each ½” of Depth)	<u>\$55.00</u>
4.	Chloride Ion Content Test – Pulverized Method of Sampling, Retrieved, prepared, and tested (Each)	<u>\$10.00</u>
5.	Delamination Survey (Square Foot)	<u>\$0.20</u>
6.	Membrane Resistivity Test (Square Foot)	<u>\$0.10</u>
7.	Traffic Control (Day*)	<u>\$550.00</u>
8.	Flaggers (Hour)	<u>\$30.00</u>
9.	Mobilization (Bridge)	<u>\$1,400.00</u>
10.	Mobilization – Night Work (Night, when ordered)	<u>\$500.00</u>
11.	Uniformed Local Officer w / Cruiser (Hour)	<u>\$30.00</u>
12.	Arrow Board (Day*)	<u>\$50.00</u>
13.	Final Report – (Each Set of 5 copies)	<u>\$1,350.00</u>
14.	Variable Message Board (Day*)	<u>\$100.00</u>
15.	Boat for Inspection Access (Bridge, when required)	<u>\$100.00</u>

*When night work is ordered by the Department, the unit for *Traffic Control*, *Arrow Board*, and/or *Variable Message Board* is per Night. In addition, the Item Fee for *Mobilization – Night Work* will be paid for each night ordered.

SPECIAL PROVISIONS

This contract shall be administered in accordance with the applicable sections of Division 100 of the State of New Hampshire Department of Transportation Standard Specifications for Road and Bridge Construction <http://webster.state.nh.us/dot/specifications/index.htm> . In particular, but not limited to, Bidding Requirements and Conditions, Award and Execution of Contract, Scope of Work, Legal Relations and Responsibility to Public (except Insurance Requirements), Prosecution and Progress, and Measurement and Payment.

6.4 In accordance with EXECUTIVE ORDER 11246, the New Hampshire Department of Transportation has the authority and responsibility to notify the Office of Federal Contract Compliance Programs of the United States Department of Labor if they become aware of any possible violations of Executive Order 11246 and 41 CFR Part 60. The Office of Federal Contract Compliance Programs is solely responsible for determining compliance with Executive Order 11246 and 41 CFR Part 60 and the Contractor should contact them regarding related compliance issues.

10.1 However, for 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 Contractor, of a satisfactory nature in accordance with this AGREEMENT, which are of use to the DEPARTMENT, the Contractor shall be entitled to a credit determined solely by the Department, based on the contract rate for the work so performed in a satisfactory manner and of use and benefit to the DEPARTMENT.

12.1 All subcontracts shall be in writing. A copy of each subcontract shall be submitted for the DEPARTMENT'S files.

13.1 Professional Liability Indemnification. The Contractor 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 Contractor or its subcontractors in the performance of professional services covered by this AGREEMENT.

Amend 14.1.1 as follows:

- 14.1.1 comprehensive general liability insurance against all claims of bodily injury, death or property damage, in amounts of not less than \$250,000 per claim and \$2,000,000 per *aggregate*; and
- 14.1.3 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
- 14.1.4 Professional liability (errors and omissions) insurance coverage of 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 \$75,000; and
- 14.1.5 Workers' compensation and employer's liability insurance as required by law.

Amend second sentence of 14.2 to read:

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.

25. **STANDARD SPECIFICATIONS.** The Contractor agrees to follow the provisions of the professional codes or standards applicable to the services to be performed under this AGREEMENT.

26. **REVIEW BY STATE AND FEDERAL HIGHWAY ADMINISTRATION - CONFERENCES - INSPECTIONS.**

26.1 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 and Federal Highway Administration, United States Department of Transportation (if utilized on a Federally funded project), at such time or times as the STATE or Federal Highway Administration deems appropriate.

26.2 The location of the office where the work will be available for inspection by STATE and Federal Highway Administration representatives is 77 Sundial Avenue, Suite 401 W, Manchester, NH.

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

27. **REVISIONS TO REPORTS, PLANS OR DOCUMENTS.**

27.1 The Contractor 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 Contractor, without undue delays and without additional cost to the DEPARTMENT.

28. **DISADVANTAGED BUSINESS ENTERPRISE POLICY AGREEMENT REQUIREMENTS.**

28.1 Policy. It is the policy of the United States Department of Transportation (USDOT) to ensure nondiscriminatory opportunity for Disadvantaged Business Enterprises (DBE's), as defined in 49 Code of Federal Regulations (CFR) Part 26, to participate in the performance of agreements and any subagreements financed in whole or in part with Federal funds. Consequently, the DBE requirements of 49 CFR Part 26 apply to this AGREEMENT (if utilized on a Federally funded project).

28.2 Disadvantaged Business Enterprise (DBE) Obligation. The STATE and its Contractors agree to ensure nondiscriminatory opportunity for disadvantaged business enterprises, as defined in 49 CFR Part 26, to participate in the performance of agreements and any subagreements financed in whole or in part with Federal funds. In this regard, the STATE and its Contractors shall take all necessary and reasonable steps in accordance with 49 CFR Part 26 to ensure that disadvantaged business enterprises have the opportunity to compete for and perform work specified in the agreements. The STATE and its Contractors shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of agreements financed in whole or in part with Federal funds.

28.3 Sanctions for Non-Compliance. The Contractor is hereby advised that failure of the Contractor, or any Subcontractor performing work under this AGREEMENT, to carry out the requirements set forth in paragraphs 1 and 2 above shall constitute a breach of agreement and, after the notification of the United States Department of Transportation, may result in termination of this AGREEMENT by the STATE or such remedy as the STATE deems appropriate.

29. **DOCUMENTATION.** The Contractor shall document the results of the work to the satisfaction of the DEPARTMENT and the Federal Highway Administration (if utilized on a Federally funded project). This shall include preparation of progress reports, plans, specifications and estimates and similar evidences of attainment of objectives called for in this AGREEMENT.

30. **CLEAN AIR AND WATER ACTS.** If the amount of the AGREEMENT or subcontract thereunder exceeds \$100,000, the Contractor or subcontractor 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 Contractor or subcontractor shall report violations to the FHWA and to the U. S. Environmental Protection Agency Assistant Administrator for Enforcement (EN-329).

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 Terracon Consultants, Inc. a(n) Delaware corporation, is authorized to transact business in New Hampshire and qualified on December 21, 2007. 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 17th day of May, A.D. 2013



William M. Gardner
Secretary of State



TERRACON CONSULTANTS, INC.

CERTIFICATE OF VOTE

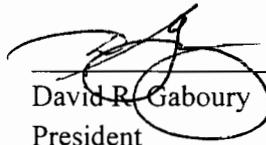
I, David R. Gaboury, hereby certify that I am the duly elected President of Terracon Consultants, Inc.

I certify that the following is a true copy of a vote taken at a meeting of the Board of Directors of the Corporation, duly called and held on June 24, 2013 at which a quorum of the Board was present and voting.

Voted:

Ryan R. Roy, P. E. Senior Vice President of Terracon Consultants, Inc. has the full authority to bind, execute and deliver the corporation in any contractual obligations with the State of New Hampshire to provide NHDOT Statewide Bridge Deck Condition Surveys, Special Project 26260. Furthermore, Mr. Roy has full authority to bind execute and deliver the corporation in any additional contractual obligations deemed necessary to conduct business in the State of New Hampshire.

I hereby certify that said vote has not been amended or repealed and remains in full force and effect as of June 24, 2013 and that David R. Gaboury and Ryan R. Roy are duly elected President and Senior Vice President, respectively, of this corporation.



David R. Gaboury
President

June 24, 2013



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 Lockton Companies, LLC-1 Kansas City
444 W. 47th Street, Suite 900
Kansas City MO 64112-1906
(816) 960-9000

INSURED TERRACON CONSULTANTS, INC.
1312890 77 SUNDIAL AVE, STE 401 W
MANCHESTER, NH 03103

CONTACT NAME:
PHONE (A/C, No, Ext): **FAX (A/C, No):**
E-MAIL ADDRESS:

INSURER(S) AFFORDING COVERAGE		NAIC #
INSURER A: CHARTIS SPECIALTY INS. CO.**		
INSURER B: **AN AIG COMPANY (A XV)		
INSURER C: Travelers Property Casualty Co of America		25674
INSURER D: The Travelers Indemnity Company		25658
INSURER E: Lexington Insurance Company		19437
INSURER F: The Charter Oak Fire Insurance Company		25615

COVERAGES TERCO01 **CERTIFICATE NUMBER: 12359334** **REVISION NUMBER: XXXXXXXX**

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 INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> CONTR'L LIABILITY GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC	Y	N	PROP3779274	1/1/2013	1/1/2014	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COM/OP AGG \$ 2,000,000 \$
C	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input checked="" type="checkbox"/> ALL OWNED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS	Y	N	TC2J-CAP-131J3858 TJBAP131J3895	1/1/2013 1/1/2013	1/1/2014 1/1/2014	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ XXXXXXXX BODILY INJURY (Per accident) \$ XXXXXXXX PROPERTY DAMAGE (Per accident) \$ XXXXXXXX \$ XXXXXXXX
A A	UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR EXCESS LIAB <input checked="" type="checkbox"/> CLAIMS-MADE DED RETENTION \$	Y	N	PROU1920977 (EXCLUDES PROF. LIAB.)	1/1/2013	1/1/2014	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000 \$ XXXXXXXX
D F	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 N	N/A	TRK-UB-131J3846 (AZ, WI) TC2OUB131J3742 (AOS)	1/1/2013 1/1/2013	1/1/2014 1/1/2014	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
E	PROFESSIONAL LIABILITY	N	N	026030216	1/1/2013	1/1/2014	\$2,000,000 EA CLAIM & \$2,000,000 IN THE ANNUAL AGGREGATE.

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / (Attach ACORD 101, Additional Remarks Schedule, if more space is required)
RE: NHDOT STATEWIDE BRIDGE DECK CONDITION SURVEYS, SPECIAL PROJECT 26260. THE STATE OF NEW HAMPSHIRE ARE ADDITIONAL INSUREDS AS RESPECTS TO GENERAL, AUTO AND EXCESS LIABILITY, AS REQUIRED BY WRITTEN CONTRACT. THE GENERAL LIABILITY POLICY INCLUDES CONTRACTUAL LIABILITY.

CERTIFICATE HOLDER **CANCELLATION** See Attachments

12359334
STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
PO BOX 483
7 HAZEN DRIVE
CONCORD NH 03302

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

Ronald J. Foster

This endorsement changes the policy. Please read it carefully.

COMMON POLICY CONDITIONS ENDORSEMENT

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY AND PROFESSIONAL LIABILITY POLICY

All coverage parts included in this policy are subject to the following conditions.

A. Cancellation

1. The first named insured shown in the declarations may cancel this policy by mailing or deliver to us advance written notice of cancellation.
2. We may cancel this policy by mailing or delivering to the first named insured written notice of cancellation at least:
 - a. 10 days before the effective date of cancellation if we cancel for nonpayment of premium; or
 - b. 60 days before the effective date of cancellation if we cancel for any other reason.
3. We will mail or deliver our notice to the first named insured's last mailing address known to us.
4. Notice of cancellation will state the effective date of cancellation. The policy period will end on that date.
5. If this policy is cancelled, we will send the first named insured any premium refund due. If we cancel, the refund will be pro rata. If the first named insured cancels, the refund may be less than pro rata. The cancellation will be effective even if we have not made or offered a refund.
6. If notice is mailed, a proof of mailing will be sufficient proof of notice.

We will provided written notice to all certificate holders for whom you have provided the information referenced above.

7. **In the event that we cancel this policy for any reason other than non payment of premium, and**
 - a. **The cancellation effective date is prior to this policy's expiration date;**
 - b. **You are under an existing contractual obligation to notify a certificate holder when this Policy is canceled or materially changed due to a reduction in limits which is not the result of payment of damages, medical expenses or loss, (hereinafter, the "Certificate Holder(s)") and have provided to us, either directly or through your broker of record, either: (i) the name of the entity shown on the certificate and the contact name and mailing address of such entity; or (ii) the email address of a contact at each such entity; and**
 - c. **we received this information after you receive notice of cancellation of this Policy and prior to this Policy's cancellation effective date, via an electronic spreadsheet that is acceptable to us,**

we will provide advice of cancellation (the "Advice") via e-mail to each such Certificate Holders within 30 days after you provide such information to us.

Proof of our emailing the Advice, using the information provided by you, will serve as proof that we have fully satisfied our obligations under this Condition.

This Condition does not effect, in any way, coverage provided under this Policy or the cancellation of this Policy or the effective date thereof, nor shall this Condition invest any right in any entity not insured under this Policy.

If any of the conditions set forth above are not applicable or are not satisfied, we are under no obligation to provide the notice referenced in this endorsement.

All other terms, conditions, and exclusions shall remain the same.

POLICY NUMBER: TJ-BAP-131J3895
TC2J-CAP-131J3858

**DESIGNATED ENTITY- EARLIER NOTICE OF CANCELLATION/NONRENEWAL
PROVIDED BY US**

This endorsement modifies insurance provided under the following:
All coverage parts included in this policy

SCHEDULE

CANCELLATION:

When we do not renew (nonrenewal)

Number of Days: 60

Number of Days:

PERSON OR ORGANIZATION:

Any person or organization to whom you have agreed in a written contract that notice of cancellation or material limitations of this policy will be given, but only if:

1. You send us a written request to provide such notice, including name and address of such person or organization, after the first named insured received notice from us of the cancellation or material limitation of this policy; and
2. We receive such written request at least 14 days before the beginning of the applicable number of days shown in this schedule.

ADDRESS:

The address for that person or organization included in such written request from you to us.

PROVISIONS:

If we cancel the policy for any statutorily permitted reason other than nonpayment of premium we will mail notice of cancellation to the person or organization shown in the schedule above. We will mail such notice to the address shown in the schedule above at least the number of days shown for cancellation in the schedule above before the effective date of cancellation.

WORKERS COMPENSATION
AND EMPLOYERS LIABILITY POLICY
ENDORSEMENT WC 99 06 11 (A)

POLICY NUMBER:
TC2OUB-131J374-2(AOS)
TRK-UB-131J3846(AZ, OR, WI)

NOTICE OF CANCELLATION

Except for non-payment of premium by you, we agree that no cancellation or limitation of this policy shall become effective until the number of day's written notice specified in item 2 of the schedule has been mailed to you to the person or organization designated in item 1 of the schedule at the address indicated.

SCHEDULE

1. Name: any person or organization to whom you have agreed in a written contract that notice of cancellation or material limitation of this policy will be given, but only if:
 - You send us a written request to provide such notice, including the name and address of such person or organization, after the first named insured received notice from us of the cancellation or material limitation of this policy; and
 - We receive such written request at least 14 days before the beginning of the applicable number of days shown in this schedule.

Address: The address for that person or organization included in such written request from you to us.

2. Number of days written notice: 30 additional days

This endorsement changes the policy to which it is attached and is effective on the date issued unless otherwise stated.

Forms a part of policy no.: PROU 1920977

Issued to: TERRACON CONSULTANTS, INC

By: CHARTIS SPECIALTY INSURANCE COMPANY

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**LIMITED ADVICE OF CANCELLATION TO ENTITIES OTHER THAN THE NAMED INSURED
ENDORSEMENT**

This endorsement modifies insurance provided under the following:

COMMERCIAL EXCESS FOLLOW FORM POLICY

It is hereby agreed that the following is added to **SECTION VI - CONDITIONS**:

In the event that we cancel this Policy for any reason other than non-payment of premium, and

1. The cancellation effective date is prior to this Policy's expiration date,
2. You are under an existing contractual obligation to notify a certificate holder when this Policy is canceled or materially changed due to a reduction in limits which is not the result of payment of damages, medical expenses or loss (hereinafter, the "Certificate Holder(s)") and have provided to us, either directly or through your broker of record, the email address of a contact at each such entity, and
3. We received this information after you receive notice of cancellation of this Policy and prior to this Policy's cancellation effective date, via an electronic spreadsheet that is acceptable to us,

We will provide advice of cancellation (the "Advice") via email to each such Certificate Holders within 30 days after you provide such information to us.

Proof of our emailing the Advice, using the information provided to you, will serve as proof that we have fully satisfied our obligations under this Endorsement.

This Endorsement does not affect, in any way, coverage provided under this Policy or the cancellation of this Policy or the effective date thereof, nor shall this Endorsement invest any rights in any entity not insured under this Policy.

All other terms, conditions and exclusions remain the same.

Miscellaneous Attachment : M463713
Certificate ID : 12359334

Issued to: TERRACON CONSULTANTS, INC.

By: LEXINGTON INSURANCE COMPANY - PROFESSIONAL LIABILITY

**ADVICE OF CANCELLATION TO ENTITIES OTHER THAN THE NAMED
INSURED ENDORSEMENT**

This endorsement modifies insurance provided by the policy:

SCHEDULE

Name of Certificate Holder(s) and Address:

**WHERE PURSUANT TO A CONTRACT OR WRITTEN AGREEMENT THE INSURED HAS AGREED
TO PROVIDE SUCH ADVICE OF CANCELLATION**

A. If the **Insurer** cancels this policy, prior written notice of cancellation shall be given to the Certificate Holder(s) shown in the above Schedule (hereinafter, "Certificate Holder(s)") as follows:

1. a ten (10) day prior written notice of cancellation shall be given for non-payment of premium;
2. a thirty (30) day prior written notice of cancellation shall be given for any reason other than cancellation for non-payment of premium,
3. a thirty (30) day prior written notice of shall be given for non-renewal of this policy.

B. The **Insurer** shall provide thirty (30) days prior written notice of a **material change** during the policy period to the Certificate Holder(s).

Other than the right to receive notice of cancellation or a notice of a **material change** as set forth herein, this endorsement confers no rights under this policy to the Certificate Holder(s) including, but not limited to, additional insured status or additional Named Insured status.

This following definitions apply to this endorsement:

1. **Insurer** means the insurance company shown in the header on the Declarations Page of this policy.
2. **Material change** means the addition of an endorsement(s) to the policy after the policy inception date which:
 - a. Reduces the Limits of Insurance/Liability; or,
 - b. Adds an Exclusion(s) to the policy.

All other terms, conditions, and exclusions shall remain the same.

