

# WRONG-WAY DRIVER DETECTION & NOTIFICATION SYSTEMS

### **REQUEST FOR PROPOSALS**

Proposal Due Date

March 20, 2024 (4:00 p.m.)

**Email Delivery Address:** 

NCTA\_WWD\_RFP@ncdot.gov

#### **Physical Delivery Address:**

NC Quick Pass 200 Sorrell Grove Church Rd, Suite A Morrisville, NC 27560 Attn: Jerry Eakes

Issue Date: January 17, 2024

Updated through Addendum 3 (February 26, 2024)

#### Addendum Revisions Table

| Description | Date           |
|-------------|----------------|
| Addendum I  | <u>1/29/24</u> |
| Addendum 2  | <u>2/6/24</u>  |
| Addendum 3  | <u>2/26/24</u> |
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#### I. Notice of Request for Proposals

| TITLE:                 | Wrong-Way Driver Detection and Notification Systems Request for Proposals |  |  |
|------------------------|---|--|--|
| ISSUING DATE:          | January 17, 2024  |  |  |
| <b>ISSUING AGENCY:</b> | North Carolina Turnpike Authority   |  |  |

#### I.I Background and Purpose

The North Carolina Turnpike Authority (NCTA), a business unit of the North Carolina Department of Transportation (NCDOT), was formed in 2002 by the North Carolina General Assembly. The mission of NCTA is to supplement the traditional non-toll transportation system by accelerating the delivery of roadway projects using alternative financing options and facilitating the development, delivery, and operation of toll roads. NCTA is authorized to study, plan, develop, and undertake preliminary design work on turnpike projects. NCTA's work is performed by professional teams, which include NCTA staff, NCDOT staff, and consultants. This arrangement provides management oversight while assuring the necessary expertise is available when needed to advance projects in an efficient and timely manner. The NCTA Director of Toll Road Operations has primary responsibility for this Request for Proposals (RFP) process, the evaluation of the Proposals submitted by Proposers, and the oversight of the resulting Contract.

NCTA currently operates approximately 36 miles of tolled expressway facilities on the North Carolina state highway network, including the Triangle Expressway near Raleigh and the Monroe Expressway near Charlotte. There are several toll projects under construction or development in North Carolina, including I-485 Express Lanes, Complete 540 (an extension of the Triangle Expressway), the Mid-Currituck Bridge, US-74 Express Lanes, and I-77 Express Lanes South. The Wrong-Way Driver Detection and Notification Systems (WWDDNS) will be used for one or more of these projects. The initial project of interest will be Complete 540 Phase I, which is comprised of 6 new interchanges and approximately 18 miles of six-lane mainline south of Raleigh with pre-installed infrastructure at ramps and mainline for Wrong-Way Driver technology (Scenarios B and D).

NCTA is requesting written Technical and Price Proposals from qualified proposing contractors ("Proposers") interested in providing the following technology and services related to Wrong-Way Driver Detection and Notification Systems (WWDDNS):

- **Detection** Design, installation, and testing of a detection system including logic controllers and confirmation camera(s). Thermal cameras, LiDAR, video analytics, and/or radar may be proposed for the purpose of detecting wrong-way drivers with limited false positives and no false negatives.
- **Deterrence** Design, installation, integration, and testing of LED highlighted warning signs activated by a detection system to deter drivers from continuing the wrong-way.
- Notification Design, installation, integration, and testing of a notification strategy that is integrated with the detection system to send alerts by email, text, and pop-up to the local traffic management center within a timely manner. The email and pop-up alerts shall include location information as well as pictures and/or video enabling quick confirmation.

- Other Detection Design, installation, and testing of detection system, which may be the same or separate from the wrong-way detection system, for the purpose of detecting traffic anomalies such as debris, pedestrians, slow or stopped vehicles, and performance metrics such as count, speed, or occupancy.
- Other Deterrence Design, installation, integration, and testing of connected vehicle roadside units integrated with detection devices for V2X communication with drivers going the wrong-way and drivers approaching the area of the oncoming wrong-way driver.

This is a multi-part procurement. Proposers may propose on any or all Scenarios of Work as further detailed in Part III, Scope of Work and Requirements. Proposers are not required to propose on more than one Scenarios. The Scenarios of Work are as follows:

- <u>Scenario A:</u> Full Ramp System Including Infrastructure Installation, integration, testing, and maintenance of a full Wrong-Way driver system including detection and deterrence devices and notification system at a single ramp site including fiber/electric and pedestal infrastructure.
- <u>Scenario B:</u> Full Ramp System with Pre-Installed Infrastructure Installation, integration, testing, and maintenance of a full wrong-way driver system including detection and deterrence devices and notification system at a single ramp site not including fiber/electric and pedestal infrastructure.
- <u>Scenario C:</u> Full Mainline System Including Infrastructure Installation, integration, testing, and maintenance of a full Wrong-Way driver system including detection and deterrence devices and notification system at a single mainline site including fiber/electric and pedestal infrastructure.
- <u>Scenario D:</u> Full Mainline System with Pre-Installed Infrastructure Installation, integration, testing, and maintenance of a full Wrong-Way driver system including detection and deterrence devices and notification system at a single mainline toll site not including fiber/electric and pedestal infrastructure.
- <u>Scenario E:</u> Notification System Integrate and test a notification system, either software or browser-based, that will receive information from existing detection sites and provide alerts to TMC operators by email, text, and pop-up video.
- <u>Scenario F:</u> Deterrence Only Installation and integration of wrong-way warning sign(s) or other deterrence device at a ramp or mainline site to be integrated with an existing detection device.
- <u>Scenario G</u>: V2X or Other ITS Installation, integration, testing, and maintenance of a single site for any roadway technology for the purpose of detecting traffic anomalies, including but not limited to wrong-way movements, or enabling Infrastructure to Vehicle communication. Devices are to be installed at a ramp or mainline site.

As part of the Scope of Work (SOW) of this RFP, the Contractor shall be responsible to provide solutions and pricing to procure, furnish, design, install, test, and provide maintenance for Wrong-Way Driver Detection and Notification Systems. The final scope and requirements of each project will be detailed within individual task orders, which will be assigned to the Contractor(s) under this Contract. For additional details, refer to the specific sections noted within **Part III, Scope of Work and Requirements.** 

#### I.2 NCTA Facilities

NCTA staff, NCDOT staff, and consultants provide management oversight for all NCTA projects from the following facilities: The NCDOT/NCTA Transportation Building (also known as the "Highway Building"), the Metrolina Regional Transportation Management Center and the Statewide Traffic Operations Center.

#### NCDOT / NCTA Transportation Building

The headquarters for the NCTA/NCDOT staff is at the State Transportation Building ("Highway Building") located at I South Wilmington Street in downtown Raleigh, NC.

#### Metrolina Regional Transportation Management Center (MRTMC)

NCTA operators monitor and manage traffic operations and coordinate incident response and maintenance/construction work for the Monroe Expressway from the Metrolina Regional Transportation Management Center (MRTMC) located in Charlotte at 2327 Tipton Dr. These operators are co-located with NCDOT-managed operators who oversee the Charlotte regional road network. The NCTA operators are responsible for monitoring the Monroe Expressway from 5:15am to 9:45pm, 5-days a week using closed-circuit TV (CCTV) cameras, vehicle detectors, and Toll Zone security cameras. Additionally, they monitor roadside toll technology and facilities.

#### Statewide Transportation Operations Center (STOC)

NCTA operators at the Statewide Transportation Operations Center (STOC) Traffic Management Center (TMC) always monitor the Triangle Expressway and monitor the Monroe Expressway during the hours the MRTMC is not staffed. The STOC is located at the North Carolina National Guard's Joint Force Headquarters at 1636 Gold Star Drive in Raleigh. The operators have the same duties, responsibilities, and tools at their disposal as the operators at the MRTMC. The STOC is staffed 24-hours a day, 7 days a week, 365 days a year.

#### I.3 NCTA Contact

Any questions regarding this Notice or requests for an RFP package shall be directed in writing, by email to <u>NCTA\_WWD\_RFP@ncdot.gov</u>.

#### **I.4 Information Posting**

It is the responsibility of all prospective Proposers interested in responding to this RFP to routinely check the NCTA website at <u>https://connect.ncdot.gov/business/turnpike</u> for any revisions, question responses, Addenda, and changes to schedule and announcements related to this RFP. NCTA will develop an email distribution list of contact persons for those Proposers who responded to the RFI in January 2023 and/or have asked questions in writing in accordance with RFP instructions and will email this additional information to such contact persons; however, this does not relieve Proposers of the responsibility to be aware of all additional information related to this RFP posted via the website. NCTA and NCDOT grant permission to use its logo on Proposal Submittals.

#### 2. General Information

#### 2.1 Schedule

**Table I-1: Procurement Schedule** below provides a planned schedule for this RFP process, listed in the order of occurrence. NCTA reserves the right to change any or all of these dates as it deems necessary or convenient in its discretion. In the event of such a date change, Proposers will be notified in accordance with **Part I, Administrative, Section 1.4 Information Posting**.

| Milestone  | Date                         |
|--|------------------------------|
| RFP Issued   | Jan 17, 2024                 |
| Proposer Questions Due   | Jan 30, 2024 (4:00 p.m. EDT) |
| NCTA Responses to Questions Completed  | Feb 26, 2024                 |
| Technical Proposals Due  | Mar 20, 2024 (4:00 p.m. EDT) |
| Notification to Proposers Shortlisted for Oral Presentations   | Apr I <mark>7</mark> 6, 2024 |
| Oral Presentations (Proposers to be notified as to the specific schedule within the time identified) | Apr 22 – 24, 2024            |
| Price Proposals from Shortlisted Proposers Due   | May 2, 2024 (4:00 p.m. EDT)  |
| Award of Contract(s)   | Week of May 7, 2024          |
| Notice to Proceed for Task Order I & 2 (Complete 540 Phase I)  | Week of May 13, 2024         |

#### Table I-I: Procurement Schedule

**Proposal Due Date:** Technical Proposals and Price Proposals will be received by NCTA until the due date and time provided in *Table I-I* above.

#### 2.2 Policy Statement

This procurement shall be conducted in accordance with all applicable Federal and State laws and regulations, and the policies and procedures of NCTA, as those may be amended. All future amendments to any such laws, regulations and applicable NCTA policies and procedures shall be applicable to this

procurement. A copy of the North Carolina Turnpike Authority Policies and Procedures for the Procurement of Commodities and Services (February 2009) may be obtained from NCTA.

#### 2.3 **RFP** Inquiries and Notices

Any questions regarding this RFP shall be directed in writing to the email identified above in **Part I**, **Administrative, Section 1.6**. Only inquiries in writing will be accepted by NCTA, and only written responses will be binding upon NCTA. Any inquiries received after the deadline referenced in **Table I-1**: **Procurement Schedule** may or may not be answered by NCTA at NCTA's sole determination. All answers to inquiries will be posted on the NCTA web site at <u>https://connect.ncdot.gov/business/turnpike</u>. Proposers shall use the form provided in **Exhibit D-7, Forms** when submitting questions to be addressed by NCTA.

#### 2.4 Non-Solicitation Provision

From the date that this RFP is issued until the award of a Wrong-Way Driver Detection and Notification Contract(s) is announced, Proposers shall only contact NCTA in the manner identified in **Section 1, Administrative, Section 1.3** with respect to any facet of this procurement. Proposers shall not be permitted to contact any NCTA or NCDOT employee, agent, or Evaluation Committee member with respect to this procurement. Violation of this provision shall result in the disqualification of the Proposer's Proposal.

#### 2.5 Cost Incurred Responsibility

All costs incurred by any interested party in responding to this RFP shall be borne by such interested party. NCTA shall have no responsibility whatsoever for any associated direct or indirect costs.

#### 2.6 Right to Reject

NCTA retains the right and option to reject any and all Proposals.

#### 2.7 **Responsiveness of Proposals**

NCTA reserves the right to reject any Proposal as non-responsive if the Proposal fails to include any of the required information in the specified order, as further detailed in **Section IV Proposal Content**.

#### 2.8 Right to Cancel

NCTA reserves the right to cancel this RFP if it is determined to be in the best interest of NCTA.

#### 2.9 Right to Amend and Addenda

NCTA reserves the right to amend, insert, or delete any item in this RFP if it is determined to be in the best interest of NCTA. If it becomes necessary to revise any part of this RFP, a written Addendum to the solicitation will be sent via email to the RFP email list and will be posted to NCTA's website in accordance with **Part I, Administrative**, Section 1.4 Information Posting. NCTA expects to issue the last Addendum no later than the date for NCTA Inquiry Responses and Addendum (if required) Issued provided in **Table** 

*I-I: Procurement Schedule*. NCTA will not be bound by, and the Proposer shall not rely on, any oral or written communication or representation regarding the RFP documents, except to the extent that it is contained in an Addendum to these RFP documents or in the questions and answers as posted on the NCTA web site. In the case of a conflict between Addenda the latest Addendum shall apply.

Proposers are required to confirm the receipt of all Addenda issued to this RFP by completing **Exhibit D-10, Forms,** including the completed form in the Proposal Forms.

#### 2.10 Written Clarifications

NCTA may request written clarifications to Proposals. NCTA will identify in its request the due date for response. If the requested information is not received by the due date for response, the Proposer's scores may be adversely affected.

#### 2.11 Oral and Referenced Explanations

NCTA will not be bound by oral explanations or instructions given by anyone at any time during the Proposal process or after Contract award. NCTA will not consider Proposer referenced information not included in the Proposal; however, NCTA may consider other sources in the evaluation of Proposals, such as reference reviews, financial ratings, and Proposer oral presentations, for example.

#### 2.12 Oral Presentations and Interviews

NCTA reserves the right to request oral presentations and interviews with Proposers if NCTA decides that oral presentation and interviews are in its best interests. If oral presentations and interviews are used, NCTA will develop a short list for the oral presentations and interviews based on the scores of the Technical Proposals. See **Part I, Administrative, Section 3 Procurement Evaluation** process for more details.

In advance of any oral presentations and interviews, Proposers will be given detailed instructions on what the format and content of the presentation and interview will be, including what functionality, if any shall be demonstrated. It is most likely that oral presentations and interviews will be conducted virtually via Microsoft Teams.

#### 2.13 Proposal Submittal Deadline

Complete and separate Technical Proposals and Price Proposals shall be delivered by mail or to the front desk of the North Carolina Department of Transportation (NCDOT) building location presented on the cover page of this RFP, before the due date and time provided *in Table I-I: Procurement Schedule*, where they will be logged in as received. NCTA will not accept Proposals delivered after the due date and time.

#### 2.14 Submittal Responsibility

The responsibility for submitting a Proposal to NCTA on or before the stated time and date will be solely and strictly the responsibility of the Proposer. NCTA will in no way be responsible for delays caused by the United States mail delivery, common carrier or caused by any other occurrence.

#### 2.15 Waivers

NCTA may waive minor informalities or irregularities in Proposals received where such is merely a matter of form and not substance, and the correction or waiver of which is not prejudicial to other Proposers. Minor irregularities are defined as those that will not have an adverse effect on NCTA's interest and will not affect the price of the Proposals by giving a Proposer an advantage or benefit not enjoyed by other Proposers.

#### 2.16 Modification or Withdrawal of Proposals

NCTA will permit modifications to a Proposal after Proposal Submittal until the specified due date and time for accepting Proposals provided in **Table I-1: Procurement Schedule**. The Proposal may be picked up by a representative of the Proposer provided that the request to modify is in writing, is executed by the Proposer or the Proposer's duly authorized representative and is submitted to NCTA. It is the Proposer's responsibility to resubmit a Proposal before the deadline in accordance with the instructions and requirements for Proposal submission detailed in this RFP.

A Proposer may withdraw a Proposal without prejudice prior to the Submittal deadline provided in **Table** *I-I*, provided that the request is submitted in writing to the contact noted in **Part I, Administrative, Section 1.3 NCTA Contact**, is executed by the Proposer or the Proposer's duly authorized representative and is submitted with NCTA.

#### 2.17 Confidentiality and RFP Ownership

The North Carolina Turnpike Authority is a public agency of the State of North Carolina, subject to the North Carolina Public Records Act, Chapter 132 of the North Carolina General Statutes. NCTA may maintain confidential information, including any designated as trade secrets or otherwise proprietary, only in accordance with applicable Federal and State laws or regulations. NCTA, therefore, expects that Proposers will keep confidential information designations to a minimum. Any material labeled as confidential constitutes a representation by Proposer that it has made a reasonable effort in good faith to determine that such material is, in fact, a trade secret under G.S. § 132-1.2. Proposers are urged and cautioned to limit the marking of information as a trade secret or as confidential so far as is possible.

Proposer, having formed a good faith opinion, upon consultation with legal or other knowledgeable advisors, that information submitted may contain a trade secret as defined in G.S. § 66-152 or other information exempted from the North Carolina Public Records Act pursuant to G.S. § 132-1.2, may so designate appropriate portions of Proposer Materials by marking the top and bottom of pages containing confidential information in boldface type "CONFIDENTIAL." NCTA, however, may serve only as a custodian of information a Proposer deems confidential. NCTA shall not act as an arbiter or defender of any claims related to assertions of confidential information. If a request is made for disclosure of information submitted, or an action is brought to compel NCTA to disclose information marked confidential pursuant to G.S. § 132-1 et seq. NCTA will notify the affected Proposer of such request or action.

In submitting Proposer Materials in response to this RFP, a Proposer agrees to: (i) defend its assertions of confidentiality by instituting appropriate legal proceedings, at its own expense and through its counsel, or

intervening in an action brought against NCTA to compel disclosure, to defend its assertions of confidentiality; and (ii) hold the State and NCTA, and any officials or employees thereof harmless from any and all damages, costs, and attorney's fees awarded against the State and NCTA arising out of any such actions. Nothing in this section shall preclude the State or NCTA from participating in the defense of such actions, at its option and expense through its counsel. NCTA shall have no liability to a Proposer with respect to the disclosure of any information, including confidential information, subject to an order by a court of competent jurisdiction pursuant to G.S. § 132-9 or any other applicable law.

In accordance with G.S. § 136-28.5, bids and documents submitted in response to an advertisement, or this RFP, shall not be public record until the NCTA issues a decision to award or not to award the Contract.

#### 2.18 Contractual Obligations

NCTA will not be required to evaluate or consider any additional terms and conditions submitted with a Proposal. This applies to any language appearing in or attached to the document as part of the Proposer's Proposal. By execution and delivery of this RFP and Proposal, the Proposer agrees that any additional terms and conditions or changes to the terms and conditions, whether submitted purposely or inadvertently, shall have no force or effect unless such are specifically accepted by NCTA. Further, all exceptions must be taken in accordance with the instructions set forth in in **Part V, Terms and Conditions**, Section 1.2 Content of Technical Proposal.

#### 2.19 Proposer's Bid

By submitting a Proposal to NCTA, the Proposer agrees that the Contractor's Technical Proposal and Price Proposal shall remain effective two hundred and forty (240) Calendar Days after the deadline for submitting the Proposal. If NCTA determines it is in the best interest, NCTA may request that Proposers extend the date through which the Price Proposals are valid. Requests by NCTA for time extensions of Price Proposal validity will not result in change to the prices as stated in the original Price Proposals unless so specified in the request to extend or subsequently agreed to by NCTA in writing.

#### 2.20 Certificate to Transact Business in NC

As a condition of Contract award, each out-of-state Contractor that is a corporation, limited-liability company, or limited-liability partnership shall have received, and shall maintain throughout the term of the Contract, a Certificate of Authority to Transact Business in North Carolina from the North Carolina Secretary of State, as required by North Carolina law.

## 2.21 Disadvantaged, Minority, Women Business Enterprises (Race and Gender Neutral)

#### 2.21.1 Policy

It is the policy of NCTA to comply with NCDOT's Disadvantaged Business Enterprises (DBE) Program and ensure that small businesses have an equal opportunity to compete fairly for and to participate in the performance of contracts financed in whole or in part by federal and state funds. NCDOT sets DBE, Minority Business Enterprises (MBE) and Women Business Enterprises (WBE) utilization goals for all construction projects. This Contract, for goods and services specific to establishing and operating a wrongway driver detection and notification system, is not a construction contract and does not contain utilization goals. However, the Contractor is encouraged to give every opportunity to allow DBE/MBE/WBE Subconsultant participation on all contracts and supplemental agreements.

#### 2.21.2 Obligation

In compliance with Title VI, 23 CRF 200, 230, 635, 117(d) and (e) and 49 CFR Parts 21 and 26, the Proposer and Subconsultant shall not discriminate on the basis of race, religion, color, creed, national origin, age, disability or sex in the performance of this Contract. Failure by the Proposer to comply with these requirements is a material breach of this Contract, which will result in the termination of this Contract or such other remedy, as NCTA deems necessary.

#### 2.21.3 Participation

Due to the Scope of Work and Requirements for this Contract, specific goals are not established. However, NCTA encourages the utilization of Small Professional Services Firms (SPSF) Subconsultants and/or suppliers on professional services contracts let by NCDOT. All DBE/MBE and WBE firms currently certified by the NCDOT Unified Certification Program (UCP) automatically qualify as a SPSF.

#### 2.21.4 Listing of Subconsultants or Subcontractors

NCTA encourages the use of Small Professional Services Firms. Small businesses determined to be eligible for participation in the SPSF program are those meeting size standards defined by Small Business Administration (SBA) regulations, 13 CFR Part 121 in Sector 54 under the North American Industrial Classification System (NAICS). The SPSF program is a race, ethnicity, and gender-neutral program designed to increase the availability of contracting opportunities for small businesses on federal, state or locally funded contracts. SPSF participation is not contingent upon the funding source.

The Proposer, at the time of the Technical Proposal Submittal, shall submit a list of all known SPSF that will participate in the performance of the identified Work. The participation of each SPSF shall be submitted on a separate Subconsultant or Subcontractor Form RS-2. In the event the Proposer has no SPSF/Subconsultant or Subcontractor participation, the Proposer shall indicate this on the Subconsultant or Subcontractor Form RS-2 by entering the word 'none' or the number 'zero' and the form shall be signed and submitted with the Technical Proposal. Subconsultant or Subcontractor Form RS-2 is provided in **Exhibit D-2**, **Forms**. The form may also be accessed on the website at: https://connect.ncdot.gov/business/Turnpike/Documents/Form%20RS-2%20Subcontract.pdf.

See form instructions for each requirement. For TIP, enter the "Type of Work"; for "Submitted by" enter the Subcontractor name and name of person responsible for Subcontractor performance; for "Recommended by" enter the name of prime Proposer and person responsible for delivery of Services. See instruction No. 7 on form. A Subconsultant or Subcontractor Form RS-2 is required for all Subconsultants or Subcontractors whether or not they are considered a SPSF entity.

#### 2.21.5 Directory of Approved Transportation Firms

For Subconsultants or Subcontractors to be considered for SPSF utilization, a firm must be certified as SPSF and prequalified through North Carolina's Prequalification Unit. Real-time information about firms that are prequalified and approved through North Carolina's Prequalification Unit, is available in the Directory of Firms. The Directory can be accessed at https://www.ebs.nc.gov/VendorDirectory/default.html.

#### 2.21.6 Reporting Participation

When payments are made to Subconsultants or Subcontractors, including material suppliers, firms at all levels (Contractor, Subconsultants or Subcontractors) shall provide NCTA's contract administrator (the addressee for invoices under this Contract) with an accounting of said payments. The accounting shall be listed on NCTA's Subcontractor Payment Information Form (Form DBE-IS). In the event the firm has no Subconsultant or Subcontractor participation, the firm shall indicate this on the Form DBE-IS by entering the word 'none' or the number 'zero' and the form shall be signed. Form DBE-IS may be accessed on the NCDOT website at <a href="https://connect.ncdot.gov/business/Turnpike/Documents/Form%20DBE-IS%20Subcontractor%20Payment%20Information.pdf">https://connect.ncdot.gov/business/Turnpike/Documents/Form%20DBE-IS%20Subcontractor%20Payment%20Information.pdf</a> .

A responsible fiscal officer of the payee Firm, or Subconsultant, who can attest to the date and amount of the payments shall certify that the accounting is correct on the Form DBE-IS by affixing his/her signature. This information shall be submitted as part of the requests for payments made to NCTA.

#### 2.22 Federal Aid Requirements

Due to the potential of Federal Aid in development of various portions of NCTA Projects, NCTA has provided related instructions and information in the Appendices to this Request for Proposals. Proposers shall also include the appropriate completed Non-Collusion Forms provided in **Exhibit D-8**, **Forms** in Proposal Forms.

Additionally, the FHWA's Buy America policies require a domestic manufacturing process for all steel or iron products that are permanently incorporated in a Federal-Aid highway construction project.

#### 2.23 Insurance Requirements

The Contractor, at all times during the Term of this Agreement, shall maintain the ability to secure insurance in such form as is satisfactory to NCTA, and will furnish NCTA with continuing evidence of insurance viability as provided below. Insurance must be secured according to Task Orders executed within this Contract. With respect to any insurance policy required pursuant to this Agreement, all such polices shall be issued by companies licensed to do business in the State of North Carolina and all such insurance shall meet all laws of the State of North Carolina. The Contractor shall at all times comply with

the terms of such insurance policies, and all requirements of the insurer under any such insurance policies, except as they may conflict with existing North Carolina laws or this Contract.

The Contractor shall provide to the NCTA an endorsement showing the amount of coverage that is reserved specific to this Project. NCTA shall be named as an "additional insured" on all applicable coverage. The Contractor shall provide NCTA with certificates issued by the insurer showing the required coverage to be in effect and showing NCTA to be an additional insured. Such policies shall provide that the insurance is not cancelable except upon thirty (30) Calendar Days prior written Notice to NCTA. The certificates and policies shall provide that in the event of any material change in or cancellation of the policies reflecting the required coverage, thirty (30) Calendar Days advance Notice shall be given to NCTA or as provided in accordance with North Carolina law. Material change includes but is not limited to change in limits, coverage, or status of the policy. Copies of all insurance policies and endorsements shall be provided to NCTA upon request.

NCTA reserves the right to review all insurance coverage and amounts of insurance coverage on an annual basis and to require the Contractor to adjust the insurance coverage and amounts of insurance coverage based on industry standards for contracts of this size and type. The Contractor shall timely pay all premiums and deductibles when due for all insurance coverage required herein.

The Contractor shall not commence any Work until it has obtained the following types of insurance, and a certificate of such insurance has been received and Approved by NCTA. Nor shall the Contractor allow any Subcontractor to commence Work until all insurance required of the Subcontractor has been obtained. The Contractor shall provide the required Certificates of Insurance to NCTA within fourteen (14) Calendar Days upon Notice of Award for the initial Technical and Price Proposal submitted to NCTA. Subsequent Certificates of Insurance shall be provided to NCTA within fourteen (14) Calendar Days after the Task Orders executed within this Contract.

During the term of the Contract, the Contractor at its sole cost and expense shall provide commercial insurance of such type and with such terms and limits as may be reasonably associated with the Contract. As a minimum, the Contractor shall provide and maintain the following coverage and limits in its Technical Proposal and throughout the Contract Term:

1. Worker's Compensation - The Contractor shall provide and maintain Worker's Compensation Insurance, as required by the laws of North Carolina, as well as employer's liability coverage with minimum limits of \$100,000.00, covering all of Contractor's employees who are engaged in any Work under the Contract. If any Work is sublet, the Contractor shall require the Subcontractor to provide the same coverage for any of his employees engaged in any Work under the Contract; and

2. Commercial General Liability Policy - Combined Single Limits: \$1,000,000.00 per person, \$3,000,000.00 per occurrence The Commercial General Liability Policy shall include contractual liability coverage and must be on an "occurrence" basis. A Comprehensive General Liability Policy may be substituted for the Commercial General Liability Policy if the Comprehensive General Liability Policy has been endorsed to insure contractual liability, broad form property damage, and personal injury liability. 3. Business Automobile Liability Policy - To include liability coverage covering all owned, hired and nonowned vehicles used in connection with the Contract. Combined Single Limits: \$1,000,000.00 per person \$3,000,000.00 per occurrence; and

4. Professional Liability Policy- Any other provision herein to the contrary notwithstanding, the Professional Liability Policy must be with a company authorized to do business in the State of North Carolina, affording professional liability coverage for the professional services to be rendered in accordance with this Contract in the amount of at least one million dollars (\$1,000,000). The Contractor shall maintain professional liability coverage for a minimum of three (3) years after completion of the Services rendered under this Contract.

5. Technology Errors & Omissions- The Contractor shall maintain technology errors & omissions liability (or technology professional liability coverage) insurance, covering liability for all professional products and services performed, including liabilities arising from acts, errors or omissions in rendering computer or information technology services including (1) systems analysis (2) systems programming (3) data processing (4) systems integration (5) outsourcing development and design (6) systems design, consulting, development and modification (7) training services relating to computer software or hardware (8) management, repair and Maintenance of computer products, networks and systems (9) marketing, selling, servicing, distributing, installing and maintaining computer hardware or software (10) data entry, modification, verification, Maintenance, storage, retrieval or preparation of data output with a limit not less than ten million dollars (\$10,000,000) per occurrence. This insurance shall provide coverage for software copyright liability and contractual liability. Such Technology E&O insurance coverage may be met through or combined with the Professional Liability Insurance referenced in paragraph d; however, if combined then the coverage requirement for Technology E & O insurance shall be equal or greater than the combined aggregate.

6. Cyber Liability Insurance- The Contractor shall maintain Privacy and Network Security (Cyber Liability) insurance covering liability arising from (1) hostile action, or a threat of hostile action, with the intent to affect, alter, copy, corrupt, destroy, disrupt, damage, or provide unauthorized access/unauthorized use of a computer system including exposing or publicizing confidential electronic data or causing electronic data to be inaccessible (2) computer viruses, Trojan horses, disabling codes, trap doors, back doors, time bombs drop-dead devices, worms and any other type of malicious or damaging code (3) dishonest, fraudulent, malicious, or criminal use of a computer system by a person, whether identified or not, and whether acting alone or in collusion with other persons, to affect, alter, copy, corrupt, delete, disrupt, or destroy a computer system or obtain financial benefit for any party or to steal or take electronic data (4) denial of service for which the insured is responsible that results in the degradation of or loss of access to internet or network activities or normal use of a computer system (5) loss of service for which the insured is responsible that results in the inability of a third-party, who is authorized to do so, to gain access to a computer system and conduct normal internet or network activities (6) access to a computer system or computer system resources by an unauthorized person or persons or an authorized person in an unauthorized manner with a limit not less than ten million dollars (\$10,000,000) per occurrence. This insurance shall provide coverage for personal injury (including emotional distress and mental anguish). Such Cyber Liability insurance coverage may be met through or combined with the Professional Liability Insurance referenced in the above paragraph 4 or the Technology Errors and Omissions Insurance

referenced in paragraph 5 above; however, if combined then the coverage requirement for Cyber Liability insurance shall be equal or greater than the combined aggregate.

Pertaining to the above paragraphs 4, 5, 6, if coverage is written on a claim made basis, such insurance shall be maintained in force at all times during the term of this Agreement and for a period of three (3) years thereafter for Services completed during the term of this Agreement. Additionally, if a sub-limit applies to any elements of coverage, the policy endorsement evidencing the coverage above must specify the coverage section and the amount of the sub-limit.

Providing and maintaining adequate insurance coverage described herein is a material obligation of the Contractor and is of the essence of this Contract. The limits of coverage under each insurance policy maintained by the Contractor shall not be interpreted as limiting the Contractor's liability and obligations under the Contract.

**Subcontractors Insurance:** The Contractor shall either require each Subcontractor to obtain and maintain Workers' Compensation Insurance, Commercial General Liability, Business Automobile Liability and Professional Liability coverage similar to those required above in this section for the Contractor, or any other coverage deemed necessary to the successful performance of the Contract or cover Subcontractors under the Contractor's policies. Such coverage shall be in effect at all times that a Subcontractor is performing Work under the Contract. The Contractor shall have responsibility to enforce Subcontractor compliance with these or similar insurance requirements; however, the Contractor shall upon request provide NCTA acceptable evidenced of insurance for any Subcontractor. The Contractor shall assume all reasonability for risks or casualties of every description, for any and all damage, loss or injury, to persons or property arising out of the nature of the Work, including but not limited to the negligence or failure of its Subcontractors (as well as Contractor's employees) to comply with Contract Documents.

#### 2.24 Prevailing Wages

Contractor shall pay or cause to be paid to applicable workers employed by it or its Subcontractors to perform the Work not less than the prevailing rates of wages, as provided in the statutes and regulations applicable to public work contracts, including the Davis-Bacon Act, and as provided in **Appendix E** – **Standard Special Provision Minimum Wages**. Contractor shall comply and cause its Subcontractors to comply with all laws pertaining to prevailing wages. For the purpose of applying such laws, the Project shall be treated as a public work paid for in whole or in part with public funds (regardless of whether public funds are actually used to pay for the Project). It is the Contractor's sole responsibility to determine the wage rates required to be paid. In the event rates of wages and benefits change while this Contract is in effect, Contractor shall bear the cost of such changes and shall have no claim against NCTA on account of such changes.

#### 2.25 Work Zone Safety Guidelines

The Constructor and NCDOT have taken steps to maintain a safe and healthy work zone. Task Orders for work on existing facilities may require lane closures for installation and testing, MOT requirements and safety guidelines to follow for these will be provided within the Task Order. Task Orders for

Complete 540 and new facilities will partially be within active work zones. The Contractor will be working as a NCTA Contractor in the Constructor's work zone and is expected to follow the procedures and guidelines implemented by the Constructor and NCDOT as described in **Part III, Scope of Work and Requirements**, Section 2.1.3 Standards Compliance and Section 2.4.5 General MOT Requirements and Conditions.

#### 3. Proposal Evaluation

An evaluation and negotiation process for each RFP Scenario will be conducted as set forth in this Section 3 using a Best Value process to allow NCTA to award the Contract to the Proposer(s) providing the Best Value for each of the Scenarios, recognizing that Best Value may result in award to other than the lowest price or highest technically qualified Proposal. By using this method, the overall ranking may be adjusted up or down by the Evaluation Committee when considered with or traded-off against other non-price factors. "Best Value" procurement methods are authorized by G.S. §143-135.9 and in accordance with NCTA Policies and Procedures adopted by the NCTA Board February 18, 2009.

Pursuant to G.S. §143-135.9, the award decision is made based on multiple factors, including: total cost of ownership, meaning the cost of acquiring, operating, maintaining, and supporting a product or service over its projected lifetime; the evaluated technical merit of the Contractor's offer; the Contractor's past performance; and the evaluated probability of performing the specifications stated in the solicitation on time, with high quality, and in manner that accomplishes the stated business objectives and maintains industry standards compliance. The intent of "Best Value" Information Technology procurement is to enable Contractors to offer and the Agency to select the most appropriate solution to meet the business objectives defined in the solicitation and to keep all parties focused on the desired outcome of procurement.

#### 3.1 Technical Proposal Pass / Fail Screening

In response to this RFP, each Proposer shall submit a Technical Proposal in strict compliance with the Requirements outlined herein. Immediately following the Technical Proposal due date, as detailed in **Table I-2**, an NCTA representative shall validate the completeness of each Technical Proposal, including all Technical Proposal sections, correctly completed forms, and required information. Technical Proposals which are incomplete may be rejected. **Note:** Proposers are advised that NCTA is not obligated to ask for, or accept after the Technical Proposal due date, data that is essential for a complete and thorough evaluation of the Technical Proposal.

#### 3.2 Technical Proposal Evaluation

1. The evaluation process will consist of a quantitative scoring of the Technical Proposals to ascertain which Proposer(s) best meets NCTA's needs for Wrong-Way Driver Detection and Notification Systems for each Scenario. The Technical Proposals will be evaluated on their material content and their responsiveness and degree of adherence to **Part III, Scope of Work and Requirements** set forth in this document. The Evaluation Committee will review and evaluate the Technical Proposals and the other related Contract information submitted to ensure that the Proposer understands the **Part III, Scope of Work and Requirements** and has clearly expressed its intent to meet the requirements of the Contract.

- 2. Preliminary Technical Scoring. Following Technical Proposal review, the Evaluation Committee will score the Technical Proposals for each Scenario that has been submitted for as shown in Part I, Administrative, Section 1.1 and Part III, Scope of Work and Requirements.
- 3. Oral Presentations and Interviews. NCTA may invite compliant Proposers to participate in oral presentations and interviews. The oral presentations and interviews and any required demonstrations conducted therein will provide an opportunity for the Evaluation Committee to further its understanding of the Technical Proposals.
- 4. Technical Scoring. The Evaluation Committee will provide a single technical scoring per Scenario submitted for based on Technical Proposal and Oral Presentations. The scoring will consider both the Technical Proposal and the results of the oral presentations and interviews and demonstrations if conducted, with maximum potential technical score points for each Technical Proposal Scenario as shown in *Table I-2* below.

#### 3.3 Price Proposals

- I. After compilation of the updated scores for Technical Proposal Scoring following the oral presentations and interviews, the Evaluation Committee will open the sealed Price Proposals only for those Proposals with a technical score that meets the minimum requirement of 70 points or more for any of the submitted Scenarios.
- 2. The Price Proposals that meet the minimum requirement will be reviewed for completeness and reasonable proximity to the NCTA's Engineer's Estimate.
- 3. The Evaluation Committee will then apply the formula provided in this **Part I, Administrative**, Section 3.4 to the price provided in each Price Proposal to calculate the Cost Per Point score per qualified Scenario.

#### 3.4 Proposal Evaluation

The Proposals are scored as shown in **Table 1-2** below:

| Table I-2: Proposal Elements and Evaluation Method                 |   |  |
|--|---|--|
| Proposal Elements  | Scoring Per Scenario                        |  |
| Proposal Section 1: Firm and Team Qualifications                   | 10  |  |
| Proposal Section 2: Past Project Performance                       | 10  |  |
| Proposal Section 3: Approach to Scope of Work and Requirements 20  |   |  |
| Proposal Section 4: Approach to Implementation and Integration 25  |   |  |
| Proposal Section 5: Approach to Testing, Training, and Maintenance | 25  |  |
| Innovative Technology IC   |   |  |
| Maximum Possible Technical Points                                  | 100   |  |
| Cost Per Point Formula   | Proposed Cost / (Technical<br>Points x 2.5) |  |

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Proposals with the lowest Cost Per Point score would be considered Best Value. Each Scenario will be evaluated independent of the evaluation performed for the other Scenarios. A Proposer may be selected as a finalist for more than one Scenario based on the independent evaluation results for each Scenario.

| Proposer | Technical Score | Proposed Cost  | Cost Per Point |
|----------|-----------------|----------------|----------------|
| Vendor A | 95              | \$550,000      | \$2,316        |
| Vendor B | 90              | \$400,000      | \$1,778        |
| Vendor C | 85              | \$420,000      | \$1,976        |
| Vendor D | 80              | \$365,000      | \$1,825        |
| Vendor E | 68              | Not Considered | Not Considered |

#### Table I-3: Cost Per Point Evaluation Examples

#### 3.5 Negotiations and Best and Final Offers (BAFOs)

NCTA reserves the right to negotiate with multiple Proposers concurrently or in serial at its sole discretion that are determined to be in a competitive range based upon the evaluation process described above. NCTA may select none, one, or more than one Proposer for each Scenario with no maximum to the number of Proposers selected per Scenario. Finalist Proposers may be requested to provide Best and Final Offers (BAFOs) in response. If BAFOs are requested, NCTA will evaluate the BAFOs and adjust its evaluation of the Proposer's respective Proposal accordingly. Further, should negotiations with one Proposer not be successful, NCTA reserves the right to negotiate with the next ranked Proposer or Proposers at NCTA's sole determination.

#### 4. Award and Execution of Contract

#### 4.1 Notification of Award

Following evaluation and negotiations, NCTA may execute a Contract with the Best Value Proposer each for Task Order #1 (Scenario B) and Task Order #2 (Scenario D) with a Notice to Proceed to follow. NCTA may execute a Contract with other Proposers besides those selected for Task Orders #1 and #2 that would be eligible to submit proposals for future Scenario B and D Task Orders. NCTA may execute a Contract with one or more successful Proposers for each other Scenario to be eligible to submit proposals for future Task Orders within those Scenarios. NCTA will notify the successful Proposers in writing via a Notification of Award letter via email. NCTA will issue an original Contract for execution by the successful Proposer. After the Contract is executed by NCTA, a duplicate copy will be mailed back to the Contractor.

**Originals.** The original copy will be retained in the NCTA Office. On Federal-Aid projects, a true copy will be sent to the Federal Highway Administration.

**Bonding Requirements.** All bid and performance bonds will be handled using the following procedures. The bid bond form is available online at: <a href="https://connect.ncdot.gov/letting/pages/central-letting-forms.aspx">https://connect.ncdot.gov/letting/pages/central-letting-forms.aspx</a>

All bid and performance bonds will be handled using the following procedures for each Project. <u>The</u> <u>Payment and Performance Bonds shall be provided with the Project after the issuance of</u> <u>each Task Order.</u>

Payment and Performance Bonds:

- a. Successful Proposers will have fourteen (14) Calendar Days after receipt of the Notification of Award for each Task Order to furnish the performance and payment bonds and insurance. If the successful Proposer NCTA may negotiate with multiple awarded Contractors. The NCTA award of, or continuation of any Contract for or related to its WWDDNS is subject to the availability of funding.
- b. Proposer shall submit evidence that it is capable of obtaining Contract payment and performance bonds in an amount equal to one hundred percent (100%) of the Base Contract Proposal Price for the Implementation Phase and for one (1) year of Maintenance as further set forth in subparagraph b. A surety letter submitted with the Proposal is acceptable evidence of meeting this bond requirement. The form for this letter is included as **Exhibit D-10**, **Forms**. The completed letter shall be included in the Technical Proposal Forms.
- c. The initial bond shall be in the amount of one hundred percent (100%) of the total Project Implementation Phase price as set forth in the Proposer's Price Proposal Sheet B-I, given the Scenario of the Task Order, less the cost of the bonding. The Implementation Phase Bonds may be annually renewable, with renewal to take place each year at the anniversary of Contract execution.
- d. For each Project, the Contractor shall obtain Contract payment and performance bonds in an amount equal to 100 percent of the Contract Proposal Price for the Implementation Phase and for one year of Operations and Maintenance as further set forth in the paragraphs immediately below. The Operations and Maintenance Phase commence following the completion of the Go-Live.
- e. Bonding must be continuous in that the Operations and Maintenance Bond associated with the Project must be provided prior to the release of the Implementation Phase Bond for that roadway and specific project. The initial bonding level for the Operations and Maintenance Phase shall be provided at 100 percent of Year 1 of Operations and Maintenance. The value of the bond for each year beyond Year I shall be in the amount of 100 percent of the estimated Operations and Maintenance Costs for the upcoming Operations and Maintenance Year.

#### 5. Protest Procedure

Each Proposer, by submitting its Proposal, expressly recognizes the limitation on its rights to protest contained herein, expressly waives all other rights, and remedies, and agrees that the decision on any protest, as provided herein, shall be final and conclusive. These provisions are included in these RFP documents expressly in consideration for such waiver and agreement by the Proposers. If a Proposer disregards, disputes, or does not follow the exclusive protest remedies set forth in these RFP documents, it shall indemnify, defend, and hold NCTA and NCDOT, and their respective Board members, directors, officials, employees, Agents, representative, and consultants, harmless from and against all liabilities, expenses, costs, fees, and damages incurred or suffered as a result of such Proposer actions. The

submission of a Proposal shall be deemed the Proposer's irrevocable and unconditional agreement with such indemnification obligation.

1. Any request for a protest meeting shall be in writing and filed with the NCTA Executive Director at the address specified below and shall be received within thirty (30) consecutive Calendar Days from the date of the Contract award. Any protest not set forth in writing, including oral objections, is not a protest and shall be null and void.

NCTA Executive Director 1578 Mail Service Center Raleigh, NC 27699-1578

- 2. All protests shall include the following: 1) Name and Address of Protestor; 2) RFP Name and date of issuance; 3) Specific reasons for protest; and 4) Supporting exhibits, evidence, or documents to support the protest.
- 3. If the protest does not contain this information or if the Executive Director determines that a meeting would serve no purpose, the Executive Director may, within ten (10) consecutive Calendar Days from the date of receipt of the letter, respond in writing to the Proposer and refuse the protest meeting request.
- 4. If the protest meeting is granted, the Executive Director shall attempt to schedule the meeting within thirty (30) consecutive Calendar Days after receipt of the letter, or as soon as possible thereafter. Within ten (10) consecutive Calendar Days from the date of the protest meeting, the Executive Director shall respond to the Proposer in writing with the Executive Director's decision.
- 5. The Executive Director may appoint a designee to act on the Executive Director's behalf regarding these protest procedures.
- 6. All Proposals shall be irrevocable until the final administrative and judicial disposition of a protest.

## Part II

## **Defined Terms and Acronyms**

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#### I. Defined Terms

| Term                | Definition  |  |
|---------------------|---|--|
| Acceptance          | Approval of a Phase or a test by NCTA, based on meeting certain conditions and test requirements, including Approvals, set forth in <b>Part III, Scope of Work and Requirements</b> and the Agreement.  |  |
| Addendum or Addenda | A document created to capture any clarification, update,<br>amendment, addition, deletion, or modification made to the RFP<br>during the procurement process.   |  |
| Agreement           | Also referred to as the "Contract." It is the written Contract<br>between NCTA and the respective Contractor covering all parts<br>of this Project.   |  |
| Agreement Term      | The duration of the Agreement, including any authorized renewals and extensions. Also referred to as "Contract Term."   |  |
| Amendment           | Change in the Agreement executed in writing made by adding, altering, or omitting a certain part or terms.  |  |
| Appendix            | A collection of supplementary material for reference purposes<br>only.  |  |
| Attachment          | Any documentation, appended to this Contract, which does not establish a requirement for Deliverables.  |  |
| Business Day        | A day, excluding NCTA observed Holidays, Saturdays, and Sundays.  |  |
| Calendar Day        | Every day, including weekends and Holidays, beginning at 12:00:00 a.m. and ending at 11:59:59 p.m.  |  |
| Constructor         | The person, firm, corporation, or entity undertaking the execution of the civil design and infrastructure construction for NCTA or NCDOT Projects.  |  |
| Contract            | See "Agreement."  |  |
| Contract Documents  | <ul> <li>All the documents that make up the Contract, including but not limited to:</li> <li>Executed Agreement, including RFP, all executed RFP Addenda, BAFO, and Amendments;</li> <li>Part I, Administrative;</li> <li>Part II, Defined Terms and Acronyms;</li> <li>Part III, Scope of Work and Requirements, as conformed;</li> <li>Part IV, Terms and Conditions;</li> <li>Contractor's Technical Proposal</li> <li>Other Proposer Materials</li> </ul> |  |
| Contract Term       | See "Agreement Term."   |  |

| Term                                       | Definition   |
|--|--|
| Contractor(s)                              | The person, firms, corporation, or entities undertaking the execution of the Work with whom NCTA has entered into an Agreement.  |
| Deliverable(s)                             | All Documentation and any items of any nature submitted by the<br>Contractor to the NCTA's Contractor Project Manager for<br>review and approval pursuant to the terms of this Agreement.<br>See "Submittal."  |
| Equipment                                  | See "Hardware."  |
| Evaluation Committee                       | The Committee NCTA will use to evaluate Proposer Materials as described in this RFP, to determine the Best Value Proposer.   |
| Exhibit                                    | A supplement to this Contract that establishes requirements for Deliverables.  |
| Express Lane                               | A limited access expressway lanes or roadways separated from adjacent general-purpose lanes and employing payment of tolls to manage demand.   |
| Extra Work Orders                          | Changes resulting in additions or deletions to the type or value of<br>Services provided pursuant to this Agreement as directed by<br>NCTA.  |
| Hardware                                   | An all-inclusive term to mean the equipment, Hardware,<br>associated peripherals, associated firmware, electrical and other<br>materials and supplies necessary or furnished by the Contractor<br>to provide Services pursuant to the Contract Documents.                                    |
| Holidays                                   | Days that are designated by NCTA as Holidays for purposes of this Agreement.   |
| Implementation Phase                       | The phase of the Project, which begins at Implementation Phase<br>Notice to Proceed and ends at Onsite Installation Test, that<br>includes but is not limited to, the System Design, development,<br>installation, Factory Acceptance Test and Operations Installation<br>Test.              |
| Installation and Acceptance Phase          | The phase of the Project, which begins at Installation and<br>Acceptance Notice to Proceed and ends at Systems Acceptance.<br>The Installation and Acceptance Phase includes all installation,<br>commissioning, Go-Live and Operations Acceptance Testing and<br>System Acceptance Testing. |
| Intelligent Transportation System<br>(ITS) | A broad range of diverse technologies, including information<br>processing, communications, control and electronics, which, when<br>applied to our transportation system, can save time, money and<br>lives.   |
| Liquidated Damages                         | Damages, whose amount the parties designate during the formation of a contract, for the injured party to collect as compensation upon a specific breach.   |

| Term  | Definition  |
|---|---|
| Maintenance   | Services performed by the Contractor pursuant to <b>Part III</b> ,<br><b>Scope of Work and Requirements</b> . May also be referred to<br>as "Maintenance Services".   |
| Maintenance Phase                                   | The Project phase which begins upon Final Acceptance. Also known as "Maintenance" and "Operations".   |
| Maintenance Services                                | The Maintenance and related Services required to be furnished by<br>the Contractor, pursuant to the Contract Documents. See<br>"Maintenance Phase".   |
| NCTA Designated<br>Representatives                  | Person or persons authorized by NCTA to represent NCTA in all dealings with the Contractor.   |
| North Carolina Department of Transportation (NCDOT) | A governmental agency in North Carolina responsible for<br>building, repairing, and operating highways, bridges, and other<br>modes of transportation, including ferries in the U.S. state of<br>North Carolina.  |
| North Carolina Turnpike<br>Authority (NCTA)         | A Business Unit of NCDOT, responsible for supplementing the traditional non-toll transportation system serving the citizens of North Carolina by accelerating the delivery of roadway projects using alternative financing options and facilitating the development, delivery, and operation of an integrated, creative system of toll roads. |
| Notice  | A formal communication addressing legal and Contractual matters, not applicable to daily Implementation and Operation and Maintenance communications.   |
| Notice to Proceed (NTP)                             | The written authorization by NCTA designating the date and time<br>for the Contractor to commence Work. There are two Notice<br>to Proceed phases, an Implementation Phase Notice to Proceed<br>and an Installation and System Acceptance Notice to Proceed.  |
| Operations Phase                                    | Services performed under this Agreement as defined by Task<br>Order, which may include Maintenance, Image Review and<br>Transaction Processing.   |
| Order of Precedence                                 | The order in which Agreement documents control in the event of a conflict or ambiguity in such documents.   |
| Functional Requirements                             | The required level of performance standards for this Contract as set forth in <b>Part IV</b> , <b>Terms and Conditions</b> and <b>Part III</b> , <b>Scope of Work and Requirements.</b>   |
| Plan(s)   | Contractor Deliverable that identifies approach to a particular aspect of the Work submitted for Approval in accordance with <b>Part III, Scope of Work and Requirements.</b>   |
| Price Proposal                                      | Contractor pricing provided in response to this RFP and in accordance with the instructions provided herein.  |

| Term                   | Definition  |
|------------------------|---|
| Project                | The total Work set forth in <b>Part III, Scope of Work and</b><br><b>Requirements</b> and as further set forth and detailed in the<br>Agreement Documents. When used in the context of a specific<br>Toll Facility, this will be a specific Project that will be contracted<br>to selected providers.   |
| Proposal               | See "Proposer Materials."   |
| Proposer               | An entity that has submitted Proposer Materials in response to this RFP.  |
| Proposer Materials     | Documentation submitted by the Proposer in response to this RFP.  |
| Quality Assurance (QA) | A process which occurs after the final Work product is complete, to ensure the Work was completed as expected and required.   |
| Quality Control (QC)   | A process which occurs before a final product is produced or presented, to ensure the Work product is accurate.   |
| Request for Proposal   | Also referred to as the "RFP," this document describes the procurement process and provides the scope of services. The RFP forms the basis for the Agreement.   |
| Requirements           | Each of the required Work activities in numbered form as set for<br>in <b>Part III, Scope of Work and Requirements</b> that the<br>Contractor shall perform, including but not limited to technical,<br>functional, Project management, Operations and Maintenance and<br>Performance.  |
| Roadside System (RSS)  | Detects and captures Toll Transactions and helps to identify the<br>vehicle using the toll facilities. The RSS has Roadside equipment<br>(RSE) that is used to provide information about the vehicle to<br>collect tolls in the operation's back office. Currently, RSS is made<br>up of in-lane technologies that capture Radio Frequency<br>Identification (RFID) by way of a Transponder affixed to the<br>vehicle for prepaid account holders and license plate images by<br>way of cameras as the method of identifying customers without<br>prepaid accounts.                                       |
| Services               | The duties and obligations undertaken by the Contractor to fulfill,<br>the <b>Part III, Scope of Work and Requirements</b> , terms and<br>conditions of the Agreement.  |
| Software               | All computer programs, media, procedures, rules and associated<br>Documentation pertaining to the control and operation of the<br>data processing and data storage for the System, as further set<br>forth in <b>Part III, Scope of Work and Requirements</b> .<br>Software includes all associated features and functions described<br>in <b>Part III, Scope of Work and Requirements</b> , including all<br>Updates, derivative works, enhancements, modifications or<br>Upgrades thereto, and all error corrections, patches and bug fixes<br>provided by the Contractor and which is made part of the |

| Term               | Definition  |
|--------------------|---|
|                    | System, as well as all related or ancillary data files, modules,<br>libraries, tutorial and demonstration programs, and other<br>components thereof, all source and object code, firmware and all<br>Documentation.   |
| Subconsultant      | See "Subcontractor."  |
| Subcontractor      | Any person, firm, or corporation, other than the Contractor's<br>employees, who contracts to furnish labor, or labor and materials<br>at the Site(s) or in connection with the Services, whether directly<br>or indirectly, on the Contractor's behalf and whether or not in<br>privity with the Contractor. Also referred to as "Subconsultant." |
| Submittal          | See "Deliverable."  |
| System Maintenance | Part of the Contractor-provided support of the Hardware<br>Systems and System Software during the Maintenance Phase.  |
| Technical Proposal | A Proposer's written response to the RFP, which provides a straightforward, concise description of the Proposer's ability to meet the Requirements of the RFP.  |
| Toll Facility      | A collection of Tolling Locations within limits of a roadway or roadway segment.  |
| Toll Zone          | A single Tolling Location covering one direction of traffic.  |
| Tolling Location   | One or more Toll Zones located in close proximity covering tolling in opposite directions of traffic.   |
| Updates            | Generally, refers to a patch released for existing software to fix<br>any identified bugs, errors, or security issues; may also include<br>providing support for new Hardware, as well as performance<br>tuning.  |
| Upgrade            | Generally, refers to transforming existing software to a new<br>version; provides new features and functionalities rather than<br>fixing existing bugs, errors, or security issues but does not include<br>significant new functionality.   |
| Work               | See "Services."   |

#### 2. Acronyms

| Acronym | Meaning                                  |
|---------|--|
| AET     | All Electronic Tolling Lane Type         |
| AI      | Artificial Intelligence                  |
| вом     | Bill of Materials                        |
| CAD     | Computer Aided Design                    |
| ССТУ    | Closed Circuit Television                |
| CEMS    | Critical Environmental Monitoring System |

| Acronym | Meaning   |
|---------|---|
| COTS    | Commercial-Off-The-Shelf                            |
| CSWRD   | Conformed Scope of Work and Requirements Documents  |
| DB      | Database  |
| DMS     | Dynamic Message Sign                                |
| ETC     | Electronic Toll Collection                          |
| FHWA    | Federal Highway Administration                      |
| GP      | General Purpose                                     |
| GUI     | Graphical User Interface                            |
| ICD     | Interface Control Document                          |
| IEEE    | Institute of Electrical and Electronics Engineers   |
| IP      | Internet Protocol                                   |
| ISP     | Internet Service Providers                          |
| ITS     | Intelligent Transportation Systems                  |
| ITSM    | IT Service Management                               |
| LAN     | Local Area Network                                  |
| MAN     | Metro Area Network                                  |
| ML      | Machine Learning                                    |
| МОТ     | Maintenance of Traffic                              |
| MRTMC   | Metrolina Regional Transportation Management Center |
| МТР     | Master Test Plan                                    |
| MUTCD   | Manual on Uniform Traffic Control Devices           |
| MVD     | Microwave Vehicle Detection                         |
| NCDIT   | North Carolina Department of Information Technology |
| NCDOT   | North Carolina Department of Transportation         |
| NCTA    | North Carolina Turnpike Authority                   |
| NDA     | Non-Disclosure Agreement                            |
| NEC     | National Electrical Code                            |
| NTP     | Notice to Proceed                                   |
| ОІТ     | Onsite Installation Testing                         |
| OSHA    | Occupational Safety and Health Administration       |
| PM      | Project Manager                                     |
| РМР     | Program Management Plan                             |
| QA      | Quality Assurance                                   |
| QC      | Quality Control                                     |
| RFI     | Request for Information                             |
| RFID    | Radio Frequency Identification                      |
| RFP     | Request for Proposal                                |
| ROI     | Region of Interest                                  |

| Acronym | Meaning  |
|---------|--|
| SAT     | System Acceptance Test                             |
| SHP     | State Highway Patrol                               |
| SMS     | Short Message Service                              |
| SNMP    | Simple Network Management Protocol                 |
| SOW     | Scope of Work                                      |
| SPD     | Surge Protector Devices                            |
| STIP    | Statewide Transportation Improvement Project       |
| STOC    | Statewide Transportation Operations Center         |
| тмс     | Transportation Management Center                   |
| TZ      | Toll Zone  |
| VLAN    | Virtual Local Area Network                         |
| VPN     | Virtual Private Network                            |
| WAN     | Wide Area Network                                  |
| WBS     | Work Breakdown Structure                           |
| WWD     | Wrong-Way Driver                                   |
| WWDDNS  | Wrong-Way Driver Detection and Notification System |

## Part III

## Scope of Work and Requirements
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# I. Scope of Work Overview

NCTA currently utilizes Wrong-Way Driver Detection and Notification Systems (WWDDNS) integrated into Roadside Toll Collection System (RTCS) on two existing toll facilities, Triangle Expressway and Monroe Expressway. NCTA has several planned tolled facilities, including the Complete 540 project currently under construction. Please refer to **Section III, Scope of Work and Requirements**, Section 1.2 for details on the existing and planned toll facilities and the current technology utilized.

The purpose of this procurement is to acquire Wrong-Way Driver Detection and Notification Systems (WWDDNS) in various scenarios for deployment on existing and future facilities with a primary focus on twelve (12) full ramp sites (Scenario B, Task Order #1) and twelve (12) mainline sites (Scenario D, Task Order #2) with existing infrastructure for Complete 540 Phase I. The Scope of Work (SOW) involves design, installation, implementation, testing, operations, and maintenance of WWDDNS. Other ITS and infrastructure components will be included as specified in each Scenario's Scope of Work.

The Contractor shall be responsible to provide the services detailed in their proposal as they apply to the Scope of Work released as a Task Order for each Project within the term of this Contract. The Contractor shall coordinate its Wrong-Way Driver Detection and Notification System design, delivery and operations and maintenance, as defined by the Task Order.

For Task Orders involving installation of Wrong-Way Driver Detection and Notification Systems for a facility under construction, the Contractor shall coordinate with NCTA and the Design-Build Team (the "Constructor"), for all construction-related activities anticipated for the WWDDNS Project(s). The Contractor shall provide design specifications to the Constructor and shall be required to review the engineering design, provide feedback, and identify potential impacts to the WWDDNS installation and performance.

The Contractor shall be responsible for furnishing and mobilizing all required equipment, facilities, and resources to carry out this SOW and to meet Contract Requirements. These may include but are not limited to:

- a. Mobilization;
- b. Local office space defined as office space in the NCTA specific proximity for a Project;
- c. Installation equipment storage;
- d. Demobilization and removal of all site debris;
- e. All permits, licenses, fees, insurance and bonds;
- f. Coordination and cooperation with NCTA, third parties, and Constructor
- g. Maintenance of Traffic (MOT);
- h. Development and production of documentation,
- i. Design drawings, plans, and schedules;
- j. Training;
- k. Testing; and
- I. Safety.

The Requirements intend to permit the Contractor the flexibility in the design and development of the WWDDNS to reflect innovation and state-of-the-art proven technology that is fully capable of meeting the required operational, performance, and Contractual Requirements. Further, NCTA intends to provide the Contractor with a set of Functional Requirements, as detailed in **Section 2.3 of Part III, Scope of Work and Requirements.** 

# I.I Procurement Concept

This procurement is structured into multiple scenarios to account for the varied needs of current and future facilities. Proposers can propose on any combination of one or more of the following scenarios:

- <u>Scenario A:</u> Full Ramp System Including Infrastructure Installation, integration, testing, and maintenance of a full wrong-way driver system including detection and deterrence devices and notification system at a single ramp site including fiber/electric and pedestal infrastructure.
- <u>Scenario B:</u> Full Ramp System with Pre-Installed Infrastructure Installation, integration, testing, and maintenance of a full wrong-way driver system including detection and deterrence devices and notification system at a single ramp site not including fiber/electric and pedestal infrastructure.
- <u>Scenario C:</u> Full Mainline System Including Infrastructure Installation, integration, testing, and maintenance of a full wrong-way driver system including detection and deterrence devices and notification system at a single mainline site including fiber/electric and pedestal infrastructure.
- <u>Scenario D:</u> Full Mainline System with Pre-Installed Infrastructure Installation, integration, testing, and maintenance of a full wrong-way driver system including deterrence and notification system at a single mainline toll site not including fiber/electric and pedestal infrastructure.
- <u>Scenario E:</u> Notification System Integrate and test a notification system that will receive information from existing detection sites and provide alerts to TMC operators by email, text, and pop-up video.
- <u>Scenario F:</u> Deterrence Only Installation and integration of wrong-way warning sign(s) or other deterrence device at a ramp or mainline site to be integrated with an existing detection device.
- <u>Scenario G:</u> V2X or Other ITS Installation, integration, testing, and maintenance of a single site for any roadway technology for the purpose of detecting traffic anomalies, including but not limited to wrong-way movements, or enabling Infrastructure to Vehicle communication. Devices to be installed at a ramp or mainline site to be integrated with an existing notification system.

Services for each Scenario includes the provision of direct technical support to NCTA as well as to the Traffic Management Centers (TMC) operations. This list is not meant to be all inclusive. Please refer to **Section III, Scope of Work and Requirements**, Section 2 for detailed Requirements.

# **1.2 Technical Background**

The Triangle Expressway is a six-lane, 18.8-mile expressway facility that was completed in December of 2012. Interchanges were added to the route in 2017 and 2019. An expansion of the Triangle Expressway is currently underway. The three construction projects that comprise this expansion are known as

"Complete 540." Current Complete 540 project information and descriptions can be found on the NCDOT website: <u>https://www.ncdot.gov/projects/complete-540/Pages/default.aspx</u>. A second expansion of the Triangle Expressway is currently in the planning stages (STIP R-2829). This project will complete the I-540/Toll NC 540 outer loop around the Raleigh metropolitan area. The operations of the Triangle Expressway and Complete 540 are (and will be) monitored from the NCDOT Statewide Transportation Operations Center (STOC) located at 1636 Gold Star Drive, Raleigh, NC 27607.

The Monroe Expressway is a four-lane, 18.0-mile expressway facility that was completed in November 2018. Monroe Expressway project information and descriptions can be found on the NCDOT website: https://www.ncdot.gov/projects/monroe-expressway/pages/default.aspx. The operations of the Monroe Expressway are (and will be) monitored from the NCDOT Metrolina Regional Transportation Management Center (MRTMC) located at 2327 Tipton Drive, Charlotte, NC 28206. Currently, the Monroe Expressway communicates with the MRTMC via a pair of third-party leased line facilities. A direct NCDOT fiber link from the project to the MRTMC is expected to be completed in 2024. This facility is currently in operation from 5:30am to 9:00pm. Outside of these hours, the expressway is monitored from the STOC. A direct NCDOT fiber link does not exist between these facilities; such a link is expected to be completed by 2025. Currently, communication is being provided by the NC IT network, a combination of DOT-owned fiber and leased third-party facilities.

The minimum commitment Task Order issued under the terms of this RFP will be for the Complete 540 Phase I ramp systems (Scenario B) and mainline systems (Scenario D) with infrastructure currently under construction provided by the Constructor. The proposals obtained under this RFP will be applicable to possible deployments of systems on existing Triangle and Monroe Expressways and other future projects. Future Task Orders, if issued, will be let for updated proposals, and evaluated on a best value approach from the list of those awarded for the applicable Scenario from this RFP. Future projects and descriptions can be found on the NCTA website: <u>https://www.ncdot.gov/divisions/turnpike/turnpikeprojects/Pages/default.aspx</u>

#### I. Triangle Expressway

See Attachment 3 for example Scenario A, C, E, and G2 Task Orders for potential deployments of WWDDNS on Triangle Expressway.

The existing Triangle Expressway Intelligent Transportation System (ITS) has the following features:

- i) 72-strand fiber-optic trunkline is provided throughout the facility
- ii) Digital closed-circuit television (CCTV) cameras are located approximately every 1.3 miles. Each interchange has a CCTV camera located generally at the Y-line.
- iii) Microwave vehicle detection (MVD) stations are located:
  - (a) Approximately every one mile for mainline detection, and
  - (b) On every on-ramp and off-ramp at the interchanges.
- iv) Ten Dynamic Message Signs (DMS) are located at key points along the mainline.
- v) 120/240V power is provided to all device locations (no solar).
- vi) Generally, 12-strand fiber-optic drop cables are provided to all device locations.
- 2. Monroe Expressway

See Attachment 3 for example Scenario F and GI Task Orders for potential deployments of systems on Monroe Expressway.

The existing Monroe Expressway ITS has the following features:

- i) 48-strand fiber-optic trunkline is provided throughout the facility
- ii) Digital closed-circuit television (CCTV) cameras are located approximately every 0.8 miles. Each interchange has a CCTV camera located generally at the Y-line.
- iii) Inductive loop vehicle detection system (VDS) stations are located:
  - (1) Two per segment between interchanges, for mainline detection, and
  - (2) On every on-ramp and off-ramp at the interchanges.
- iv) Ten DMS are located at key points along the mainline.
- v) 120/240V power is provided to all device locations (no solar).
- vi) Generally, 12-strand fiber-optic drop cables are provided to all device locations.
- 3. Triangle Expressway Expansion (Complete 540)

See Attachment 3 for of the initial Scenario B and D Task Orders, Task Order #1 and #2 respectively, issued under this RFP.

The first phase of Complete 540 is currently under construction. The ITS will have the following features:

- i) 144-strand fiber-optic trunkline throughout the facility
- ii) Digital closed-circuit television (CCTV) cameras located approximately every 1.3 miles. Each interchange has a CCTV camera located generally at the Y-line.
- iii) Microwave vehicle detection (MVD) stations are located:
  - (1) Two per segment between interchanges, for mainline detection, and
  - (2) On every on-ramp and off-ramp at the interchanges.
- iv) Five DMS are located at key points along the mainline, and two DMS are located on NC-55 Bypass.
- v) 120/240V power is provided to all device locations (no solar).
- vi) Generally, 6- or 12-strand fiber-optic drop cables are provided to all device locations.
- vii) The following infrastructure for projected WWDD&N system use is provided for in the design at each off-ramp:
  - (1) A pair of Type III Pedestals (see Attachment 4 and 7) approximately 300' from the stop bar (for mounting enhanced/smart signs by others,
    - (a) 120/240V Power drop, and
    - (b) Dark fiber drop.

# 2. Requirements

## 2.1 General Requirements

The following physical, environmental, and standard compliance requirements apply to all Scenarios.

#### 2.1.1 Physical Requirements

|   | All equipment shall comply with applicable safety requirements based on the environment in<br>which they will be installed. All equipment on the roadway shall comply with any safety<br>regulations regarding collisions and break-away standards. Equipment shall not pose a health or<br>safety hazard to persons or vehicles. Equipment shall be mountable in accordance with the<br>current version of the Manual on Uniform Traffic Control Devices. |
|---|--|
|   | Safety labels shall be placed on equipment as appropriate based on prevailing laws, regulations,<br>and standards. Contactor shall provide the Material Safety Data Sheet (MSDS) for all materials<br>or equipment that has a MSDS. The Contractor shall provide any information regarding any<br>other materials that may be considered hazardous or require special handling or disposal.  |
| 3 | The Detection and Deterrence devices and all other components shall allow for proper grounding and protection against lightning strikes.   |

## 2.1.2 Environmental Requirements

| 4 | The equipment to be supplied will be installed in areas exposed to the range of climatic         |
|---|--|
|   |  |
|   | conditions found in North Carolina. The Wrong-Way Driver Detection and Deterrence site           |
|   | equipment must operate without degradation in performance in all weather conditions including    |
|   | extreme hot or cold weather, snow, heavy rain, fog and mist-like conditions, high humidity, high |
|   | wind conditions (120 miles per hour), and vibrations caused either by wind or vehicles.          |
| 5 | All equipment provided under this Contract shall be corrosion resistant and remain corrosion     |
|   | resistant for the Contract Term or 10 years, whichever is greater.                               |

## 2.1.3 Standards Compliance

| 6 | Contractor shall meet all electrical codes, traffic control, seismic considerations, calibration, configuration, and environmental requirements of and including but not limited to: |
|---|--|
|   | National Electric Safety Code;   |
|   | National Electrical Contractors Association (NECA);  |
|   | <ul> <li>Occupational Safety and Health Act (OSHA);</li> </ul>   |
|   | National Fire Protection Association (NFPA);   |
|   | National Electrical Manufacturers Association (NEMA);  |
|   | Institute of Electrical and Electronic Engineers (IEEE);   |
|   | • Applicable Electronic Industries Association (EIA) Standards for Interface and Intercommunication;   |
|   | • Underwriters Laboratories (UL); and  |
|   | Any local authorities having jurisdiction  |
|   |  |

| 7 | Contractor shall adhere to all specifications of the latest NCDOT Standard Specifications and   |
|---|---|
|   | Roadway Standard Drawings and NCDOT ITS Project Special Provisions at time of construction  |
|   | unless Contractor receives written Approval by NCTA. NCDOT Standard Specifications are  |
|   | located at: <a href="https://connect.ncdot.gov/resources/Specifications/Pages/2024-Specifications-and-">https://connect.ncdot.gov/resources/Specifications/Pages/2024-Specifications-and-</a> |
|   | <u>Special-Provisions.aspx</u>  |
|   | NCDOT ITS Project Special Provisions and Standard Drawings are located at:  |
|   | https://connect.ncdot.gov/resources/safety/pages/ITS-Design-Resources.aspx  |
| 8 | It shall be Contractor's responsibility to procure all Documentation required to install and  |
|   | adhere to the proper Installation standards, law, ordinance, or codes.  |

# 2.2 Documentation Requirements

The Contractor is required to provide various project, hardware, software, requirements, design, testing, installation, and maintenance documentation that include Contractor-developed documentation and third-party documentation. All documentation provided under this Contract shall meet the Requirements described below.

| 9  | The Contractor shall use an NCTA-provided online, electronic document management system (such as SharePoint) that is accessible to both NCTA and the Contractor by username and password, to control all project-related documents, submissions, and drawings.  |
|----|---|
| 10 | The Contractor shall maintain a Deliverable tracking list that accurately tracks all Contractor submissions, NCTA's review comments, resubmissions, and final approval.   |
| 11 | Each document shall be properly titled, date updated, numbered by revision and version, and shall incorporate signature blocks for authorship and approvals. The Contractor shall provide a logical indexing system making use of documents metadata for ease of access for NCTA to locate documents in the electronic document management system.  |
| 12 | Updated submissions of the document shall also include the red-lined version showing all revisions to the document since the last submission.   |
| 13 | The Contractor shall submit a minimum of a preliminary draft, a final draft, and a 100% final to NCTA for review and approval. NCTA will provide new comments in two iterations, provided that the Contractor provides the Deliverables in accordance with the Project Schedule. Additional iterations may be necessary to resolve comments. All final documents shall incorporate all NCTA's review comments to NCTA's satisfaction. Each subsequent submission of a Deliverable shall also include NCTA's comments review log with the resolution of each comment updated by the Contractor.  |
| 14 | NCTA will review and approve all documents submitted under the Contract. For documents containing less than one hundred (100) pages, NCTA will review and provide comments on preliminary draft documents within ten (10) Business Days. For documents containing more than one hundred (100) pages, NCTA will review and provide comments on preliminary draft documents within fifteen (15) Business Days. NCTA will review and provide comments on all final drafts and final documents within ten (10) Business Days. When multiple documents are submitted to NCTA simultaneously, or within one week of each other, the number of Business Days required for review shall be adjusted to reflect the overlapping submissions. |

| 15 | The Contractor shall submit an electronic version of all Contractor-developed documentation<br>for NCTA review and approval unless directed by NCTA to provide hard copies. Acceptable<br>electronic formats are Microsoft Office 365 Suite (or most current version), unsecured PDF<br>and professional CAD applications for Contractor-prepared documentation.    |
|----|---|
| 16 | The Contractor is required to update documentation as changes occur through the<br>Implementation and Maintenance Phase and shall maintain a document submittals list on the<br>electronic document management site identifying all versions of documents, the date submitted,<br>the nature of changes and provide relevant updates to NCTA as they are published. |
| 17 | The documentation package for all submittals as applicable shall include all required electronic media to install, operate, and maintain the WWDDNS/Deliverable/document being supplied.  |

#### 2.2.1 Project Management Plan

The Contractor shall employ a project management system that is sufficiently detailed to enable NCTA to review and confirm that the Contractor has the necessary management, staff, and controls in place to meet the Requirements of the Contract. This project management system shall be detailed in full in the Project Management Plan, which shall be followed for each Project awarded by Task Order under this Contract.

The Project Management Plan describes how the Contractor plans to implement and manage the Project, including staffing, scheduling, and communication procedures for controlling all correspondence, submittals, and other communications between the Contractor and NCTA, and communications with the Constructor, NCDOT and other third-party entities.

| 18 | The Project Management Plan shall, at a minimum, include the following elements: |  |  |  |
|----|--|--|--|--|
|    | a)   | Project scope and key Deliverables;  |  |  |
|    | b)   | a description of the management and organization of the program, an organization chart,<br>identification of key team personnel and their responsibilities, percentage commitment<br>to the Project, task leads for each functional area and location and identification of the<br>resources and key personnel during the Contract to be used in fulfilling the<br>Requirements of the Contract; |  |  |
|    | c)   | Project team (Contractor, Subcontractors, NCTA, NCTA representatives, NCDOT) contact information;  |  |  |
|    | d)   | a description of the Project planning, documentation and reporting methods to be<br>utilized, both for use within the Contractor's staff and externally to NCTA and other<br>entities;   |  |  |
|    | e)   | a description of the process for communication, escalation, and resolution of project issues with NCTA;  |  |  |
|    | f)   | meeting schedules with NCTA and other entities including the form of the meeting;  |  |  |
|    | g)   | inclusion of the approved Project Schedule;  |  |  |
|    | h)   | a description of the process for reporting, updating and tracking the Project Schedule<br>and Project performance;   |  |  |

| Wrong-V | Vay Drive | Part III – Scope of Work and Requirements  |
|---------|-----------|--|
|         | i)        | a description of the coordination process with NCTA, and NCDOT during the tolling facility infrastructure Implementation Phase;  |
|         | j)        | a description of the coordination process with NCTA, and NCDOT during the installation drawing review process;   |
|         | k)        | approach to change management, consistent with Contract Requirements, including a description of the process for documenting and submitting change requests, the approval process and how the change management approach shall be integrated into daily Project management;  |
|         | l)        | approach to document control, including Software NCTA will use to access the documents;  |
|         | m)        | approach to risk management;   |
|         | n)        | approach to QA and QC;   |
|         | o)        | documenting the invoice submission, invoice backup information, verification, and approval process;  |
|         | p)        | a section with all approved Project forms including but not limited to, meeting agenda,<br>meeting notes, action items tracking log, monthly progress report, and invoices; and  |
|         | (p        | an emergency contact list and succession plan.   |
| 19      | Softwa    | ontractor shall identify the tools and products used to manage the Project, including the<br>re development lifecycle and the internal controls instituted by the Contractor to<br>tee successful delivery of the Project.   |
| 20      |           | ontractor shall develop and submit the communication procedures to NCTA for review proval that address the following, including but not limited to:  |
|         | a)        | Correspondence - correspondence shall be identified as to originator and designated receiver and include the form of transmission;   |
|         | b)        | Document control - tracking of document versions and changes including naming conventions;   |
|         | c)        | Invoices - all invoices shall be submitted with accompanying backup information as required by the Contract and consistent with NCTA processes and invoicing and auditing policies. The Contractor shall work with NCTA to develop the appropriate invoice and back-up materials as a part of the PMP development; |
|         | d)        | Submittals - all submittals shall be delivered as an enclosure to the Contractor's submittal letter. Each submittal letter shall be limited to a single subject or item. The Contractor's letter shall identify the contract number, contract name, and subject of the submittal;                                  |
|         | e)        | Contract Number and Contract Name - all items of correspondence, invoices, submittals and documentation shall contain the contract number and the designated contract name, and;   |
|         | f)        | Comments Log - process for validating that all comments provided by NCTA on Contractor Deliverables are successfully addressed.  |

|       | -                         | r Detection and Notification Systems RFP Part III – Scope of Work and Requiremen   |
|-------|---------------------------|--|
| 2.2.2 | Staffir                   | g and Key Personnel  |
| 21    |                           | ontractor shall ensure key personnel is readily accessible to NCTA or their authorized entatives during the Contractor's performance of each Task Order.   |
| 22    | to mee<br>for thi<br>NCTA | ontractor is required to provide sufficient staff during the duration of each Task Order<br>t the Project Requirements and Contract. The following are designated as key personnel<br>Project and are subject to the approval, replacement, and removal requirements of<br>for key personnel. Multiple roles may be filled by the same key personnel as long as<br>sibilities and qualifications are met.  |
|       | a)                        | Project Principal – responsible for the overall conduct and performance of the Project; oversight of the Project; the performance of the Contractor Project Manager and a point of contact for any escalated project issues that cannot be resolved by the Contractor Project Manager. The Project Principal shall have experience in ITS implementation projects in the last five (5) calendar years.   |
|       | b)                        | Contractor Project Manager – responsible for all daily work, the overall execution and delivery of the Project and the Contractor contact person on the Project. The Contractor Project Manager shall have worked as Project Manager for a minimum of three (3) similar ITS projects in the past five (5) calendar years.  |
|       | c)                        | Technical Manager - responsible for the management of all the design, development and implementation of the technology solution and resources related to the WWDDNS, including devices and interfaces to TMCs. The Technical Manager shall serve as the overall solution architect, including management of Software development, on-going Hardware/Software maintenance, equipment and systems and information security as required to satisfy the requirements of the Contract. The Technical Manager shall have worked in an equivalent position for a minimum of two (2) projects in the last four (4) calendar years.   |
|       | d)                        | Installation/Maintenance Manager – responsible for the installation, commissioning, and subsequent Maintenance Services, if applicable, of the WWDDNS, including devices and interfaces to TMCs. The Installation/Maintenance Manager shall work primarily in the applicable project area but shall need to attend regular meetings at the NCTA Raleigh offices and be available in Raleigh or project vicinity Monday through Friday from 8 a.m. eastern to 5 p.m. eastern or additional days or times as required to complete the work. The Installation/Maintenance Manager shall have worked in an equivalent position on a minimum of two (2) projects in the last four (4) calendar years. |
|       | e)                        | Quality Assurance Manager – responsible for consistent quality throughout the design, development, testing, and implementation of the Project through good QA and QC practices, similar projects, and transaction processing projects in the past five (5) calendar years.   |
|       | f)                        | Test Manager – responsible for the overall planning and implementation of the Project's testing program. The Test Manager shall be one hundred percent (100%) dedicated to the Project during the test phase of the Project. The Test Manager shall have worked in an equivalent position on a minimum of two (2) similar projects in the past five (5) calendar years.  |

# 2.2.3 Cooperation with Other Contractors and Providers

| 23 | The Contractor shall cooperate to the fullest extent with NCTA and NCDOT to ensure the   |  |  |
|----|--|--|--|
|    | Project Implementation and Maintenance Services do not conflict with or cause any interruption                                   |  |  |
|    | in capability, service or safety issues to the traveling public or customers.  |  |  |
| 24 | The Contractor shall cooperate with the Constructor, NCTA, NCDOT, existing contractors,  |  |  |
|    | and external parties, as directed by NCTA, to support any activity related to the WWDDNS   |  |  |
|    | Implementation, including but not limited to:  |  |  |
|    | a) NCTA employees;   |  |  |
|    | b) NCTA Designated Representatives;  |  |  |
|    | c) other third parties, as directed by NCTA;   |  |  |
|    | d) law enforcement;  |  |  |
|    | e) inspectors;   |  |  |
|    | f) auditors, and;  |  |  |
|    | g) all contractors.  |  |  |
| 25 | The Contractor shall cooperate with and immediately notify NCTA of any customer complaints                                       |  |  |
|    | identified in the toll lanes or facilities that come to the Contractor's attention during  |  |  |
|    | implementation, testing, or maintenance.   |  |  |
| 26 | The Contractor shall provide and maintain a current emergency contact list for NCTA's use at                                     |  |  |
|    | all times for handling emergencies and escalations. The emergency contact list shall name  |  |  |
|    | primary and secondary (multiple secondary contacts as applicable) points of contact for each                                     |  |  |
|    | anticipated emergency type. The emergency contact list shall name the Contractor's preferred                                     |  |  |
|    | points of contact in order of precedence and shall include, at a minimum, the Contractor's                                       |  |  |
|    | project manager, installation manager, technical manager, and other support staff. The purpose                                   |  |  |
|    | of the emergency contact list is to ensure the Contractor can be reached outside normal working hours to address urgent matters. |  |  |
|    |  |  |  |

## 2.2.4 Progress Reports and Meeting During the Implementation Phase

Progress reports and meetings shall enable NCTA and the Contractor to monitor the status, progress, and quality of the work performed on the project and to take proactive steps to ensure the successful delivery of the Project.

| 27 | The Contractor shall provide and maintain a schedule for regular progress meetings at a location designated by NCTA. If held monthly, the meeting shall be scheduled no later than the 20 <sup>th</sup> day of the following month and shall cover progress up to the 15 <sup>th</sup> of the current month. |
|----|--|
| 28 | No less than two (2) Business Days prior to the meeting, the Contractor shall submit a draft progress report to NCTA for the period covering the previous reporting period. NCTA will review and comment on the progress report prior to or during the meeting.  |
| 29 | The Contractor shall obtain updated installation status prior to the progress meeting and include such updates in the Project Implementation Schedule which shall be submitted with the progress report.   |
| 30 | The format of the progress report shall be agreed upon as one of the initial project tasks upon NTP and shall be incorporated by the Contractor into the Project Management Plan.  |
|    | The progress report shall include but not be limited to the following items  |

| wrong- | vay Drive | er Detection and Notification Systems KFP Fart III – Scope of Work and Requirements  |
|--------|-----------|--|
| 31     | a)        | a summary outlining progress and status, and percentage of work performed for each<br>task as compared to planned activities in the Project Schedule. Comments shall be<br>included where appropriate. The summary shall also identify key milestones met and<br>missed in the period. |
|        | b)        | an analysis of all critical path tasks, potential risks associated with the tasks, and proposed contingency/workaround plan to circumvent or mitigate delays to the Project.   |
|        | c)        | identification of any approved changes to approved milestone dates and approved<br>Project Schedule, clearly noting the details, and identifying the Contract Amendment.   |
|        | d)        | a discussion of schedule compliance and an updated Project Schedule showing current<br>status against the baseline approved Project Schedule. Past due tasks shall be updated,<br>and actual dates shall be recorded for completed tasks.  |
|        | e)        | construction/installation coordination status;   |
|        | f)        | an updated action items list that tracks the status of all outstanding action items, activities and issues that need decision/resolution;  |
|        | g)        | an updated Deliverables list showing submission dates, current version, current review status, responsible party, and due date;  |
|        | h)        | a payment request, if applicable. Payment requests must identify the payment milestone,<br>number, and dollar amount. Payment requests shall be made for completed and<br>approved milestone payments only;  |
|        | i)        | a list of change requests (Contractor and NCTA initiated) and their status;  |
|        | j)        | the previous final meeting minutes; and  |
|        | k)        | a two (2) week look-ahead schedule.  |
| 32     |           | ore than five (5) Business Days after the meeting, the Contractor shall submit the final ss report and draft meeting minutes for NCTA's review and approval.   |
|        |           |  |

## 2.2.5 **Project Meetings**

In addition to the progress meeting, weekly or bi-weekly project status meetings, as applicable and approved by NCTA, and other regularly scheduled installation and ad-hoc project meetings shall be required during the course of the Project to address specific Deliverables, work items, maintenance procedures, and issues as they arise.

| 34 | The Co  | ontractor shall perform the following tasks related to all meetings, including but not                                      |
|----|---------|---|
|    | limited | to:   |
|    | a)      | develop and coordinate the Project meeting schedule;  |
|    | b)      | distribute notices of project meetings in accordance with document control requirements;                                    |
|    | c)      | prepare the agenda in coordination with NCTA;   |
|    | d)      | attend the meeting with all required staff in attendance;   |
|    | e)      | prepare minutes of the meeting and forward them to NCTA within five (5) Business Days after the meeting date; and           |
|    | f)      | maintain an action item list for each type of meeting, identifying issues that need to be<br>resolved at the project level. |

#### 2.2.6 Project Schedule

The Project Schedule is a comprehensive list of Project milestones, activities, and Deliverables, with intended start and finish dates, including a detailed Work Breakdown Structure (WBS) that identifies project tasks down to the work package level and the activities required to complete the work package Deliverables.

| 35 | The Contractor shall provide and maintain a detailed Project Schedule for the Project in<br>Microsoft Project format (Project 365 or above) that lists all project activities and tasks in the                   |  |  |
|----|--|--|--|
|    | Contract, including but not limited to:  |  |  |
|    | a) requirements;   |  |  |
|    | b) design;   |  |  |
|    | c) development;  |  |  |
|    | d) testing;  |  |  |
|    | e) installation;   |  |  |
|    | f) transition; and   |  |  |
|    | g) deployment and acceptance of the WWDDNS.  |  |  |
| 36 | The Project Schedule shall include coordination with Constructor, NCDOT, existing contractors, and NCTA and shall clearly document all interfacing tasks.  |  |  |
| 37 | The Project Schedule shall identify all milestones and tasks, starting with the NTP through the date of acceptance for the entire duration of the contract.  |  |  |
| 38 | The Project Schedule shall be resource loaded, shall include all draft submissions and review cycles, and shall include all tasks required of NCTA, NCDOT, and other contractors with critical tasks.            |  |  |
| 39 | The Project Schedule shall identify all critical path tasks and shall be used to manage the Project.   |  |  |
| 40 | The baseline for the Project Schedule shall be submitted to NCTA for approval ten (10) Business<br>Days after NTP. Once approved, the baseline Project Schedule shall only be modified by<br>Contract Amendment. |  |  |
| 41 | The Contractor shall maintain status and update the Project Schedule at least once a month, as identified in the requirements for the monthly progress report.   |  |  |

42 The Contractor shall obtain approval from NCTA for any and all changes to the approved Baseline Project Schedule and associated milestones. In accordance with the Contract process for changes and amendments, schedule changes are not considered approved unless an Amendment is executed.

#### 2.2.7 As-Built Drawings and Documentation

| 43 | Within ten (10) Business Days after the approval of the System Acceptance Test (SAT) and prior to NCTA acceptance of the WWDDNS, the Contractor shall submit As-Built documents that includes all software and hardware changes made during the WWDDNS development, implementation, and testing. |
|----|--|
| 44 | The Contractor shall update the latest drawings with red lines as changes are incorporated during the installation and check-out process. At the completion of the installation of the WWDDNS, the Contractor shall gather all red line drawings into a single package.                          |
| 45 | The red-line drawings shall be verified and then incorporated into a final As-Built Drawing package. This final As-Built Drawing package shall include installation drawings, shop drawings and sketches, and other drawing types that may have been used to install the WWDDNS.                 |
| 46 | All other documentation used regarding the installation shall also be finalized and submitted as part of the As-Built Drawing submittal.   |

# 2.3 System Design and Functional Requirements

As part of a typical Design-Build Contract, the Constructor may be responsible for the design and construction of all roadway and infrastructure where the Contractor will install, test, and commission the WWDDNS. While the specific Requirements may vary with each Project Task Order, the Contractor shall meet all Requirements if asked to provide in a Task Order for each Project.

| 47 | The Contractor shall work with NCTA and provide input into the civil design and/or construction schedule, and requirements for all civil construction work to be performed by others on the project related to WWDDNS.  |
|----|---|
| 48 | The Contractor shall cooperate and provide support as needed to the civil design and construction efforts. During civil design, Contractor support is anticipated to include responses to information requests for clarification on proposed designs as well as actively reviewing the civil plans and drawings.  |
| 49 | During construction, the Contractor shall provide review and comment on shop drawings or similar within the context of the WWDDNS Functional Requirements.  |
| 50 | During installation, the Contractor shall provide verification and comment on WWDDNS related elements that the Constructor is responsible for installing.   |
| 51 | Upon approval of shop drawings or similar design elements by the Contractor, within the context of system function and performance, the Contractor shall assume responsibility for those elements to the extent that if the civil work is installed as designed and does not meet the Functional Requirements of this SOW and Requirements, the Contractor shall be responsible for the costs of redesign, civil rework, and additional equipment costs as further set forth in the Contract. |

| 52 | The Contractor shall review and comment on the Constructor infrastructure installation and confirm it is in compliance with the approved civil drawings. A site acceptance checklist, based on the approved civil drawings, shall be generated by NCTA. The site acceptance checklist shall be reviewed and approved by the Contractor, and signed by the Contractor and NCTA, prior to site acceptance. |
|----|--|
| 53 | The Contractor shall be responsible for ensuring that the locations, positions, installation, connections and other elements of the Contractor inputs identified on the design and installation drawings provided by the Constructor, for all Contractor and NCTA-provided equipment are   |

54 The Constructor will provide these components in accordance with the Contractor approved design plans. Any changes to the configuration by the Contractor shall be adjusted or moved by the Contractor at no additional cost to NCTA.

### **2.3.1** Detection Requirements

accurate and correct.

Scenarios A, B, C, and D include supplying and installing the detection portion of a WWDDN system, which includes detection devices (thermal cameras, radar, LiDAR, video analytics, or other), logic controller, and confirmation camera(s). Detection must meet the following hardware, functional, and performance requirements.

| 55 | Detection device shall be able to detect Wrong-Way moving vehicles at a maximum distance of 300 ft with minimal false positives or false negatives in all weather conditions. |
|----|---|
| 56 | Detection device shall be capable of detecting targets as slow as 5 MPH and as fast as 120 MPH.   |
| 57 | Detection device shall be completely sealed and protected from water intrusion.   |
| 58 | Detection device shall be mounted on a three-axis mounting bracket for site-specific tuning adjustments.  |
| 59 | Detection device shall be able to detect all classifications of vehicles identified by FHWA.  |
| 60 | Logic controller shall be housed in a NEMA 3R or better enclosure with pole-mount brackets and external wire harness.   |
| 61 | Shall utilize RS232 serial communication for programming.   |
| 62 | Shall comply with Part 15 of FCC rules.   |
| 63 | Shall operate from -22° to +185°F (-30° to +85°C).  |
| 64 | Shall operate from 5.5VDC to 18VDC.   |
| 65 | Shall be programmable remotely and include side-mounted status LED for basic diagnostics and programming.   |

### 2.3.2 Deterrence Requirements

Scenarios A, B, C, D, and F include supplying and installing the deterrence portion of a WWD system, which includes R5-1A signs, both static and LED illuminated signs, and a sign controller. Additional deterrence types besides signs may be proposed and evaluated in Scenario G as long as they meet the

general requirements listed in **Part III**, Section 2.1. Deterrence must meet the following hardware, functional, and performance requirements.

| 66 | All signs shall conform to 2009 Federal Highway Administration's MUTCD section 2A.07 on retro-reflectivity and illumination.   |
|----|--|
| 67 | All signs shall be located along the exit ramp or the one-way roadway in accordance with MUTCD section 2B.38.  |
| 68 | Each sign face shall consist of overlay film to provide an additional layer of graffiti protection.  |
| 69 | Each sign shall have adequate holes for mounting to a pole or post.  |
| 70 | Each sign support shall have a strip of retroreflective material at least 2 inches in width according to MUTCD Section 2A.21.  |
| 71 | Sign wiring shall be secured on the backside of the sign support and environmentally sealed against weather and tampering.   |
| 72 | UV-resistant label(s) shall be applied to the back of each sign assembly and shall include manufacturer information including name, contact, model number, serial number, date of manufacturing and any applicable regulatory compliance information.                              |
| 73 | LED Illuminators to meet specifications for stop beacons in accordance with MUTCD section 4L.05.   |
| 74 | LED Illuminators to be activated by a logic controller under specific adjustable conditions.   |
| 75 | LED Illuminators shall include a photodiode capable of determining ambient light levels and offer adjustable lenses to disperse light based on site-specific requirements. LEDs must be visible at more than 1000 ft during the daytime and more than 1 mile during the nighttime. |
| 76 | LED Illuminators shall operate from 12-24VDC.  |
| 77 | LED Illuminators shall operate from, if -40° to +165F (-40° to +74°C).   |
| 78 | Sign Controller shall be housed in a NEMA 3R or better enclosure.  |
| 79 | Sign Controller shall have the capability of being programmed for flash pattern, flash duration, and LED intensity from a windows-based software.  |
| 80 | Solar powered system, if required, shall be in accordance with NCDOT ITS Project Special Provisions Section 17 v24.0.  |
|    |  |

#### 2.3.3 Infrastructure Requirements

Equipment shall be installed on infrastructure that shall be designed and constructed by either the Constructor or the Contractor depending on the Scenarios. All Scenarios require some level of installation drawings. Scenarios A and C include installing infrastructure for a WWDDNS. Scenario G may include infrastructure as well depending on the needs of the proposed device(s). Infrastructure includes but is not limited to conduit, fiber-optic cable, electrical components (wiring, battery, solid-state circuit boards, power convertors), power supply, grounding system, cabinet enclosures, poles, and foundations. Infrastructure must meet the following requirements.

| 81 | All installations shall be connected to the NCTA fiber-optic network. Fiber-optic cable and conduit and junction boxes shall be provided in accordance with Division 10 of the NCDOT Standards Specifications and constructed in accordance with Division 17 of the NCDOT Standards Specifications        |  |
|----|---|--|
| 82 | New electrical service shall not be required. Modified electrical services shall be in accordance with grounding of all equipment shall be in accordance with the <i>NCDOT</i> Standards Specifications.  |  |
| 83 | Power Supplies shall be provided as per the equipment manufacturer's recommendations.   |  |
| 84 | Grounding of all equipment shall be in accordance with the NCDOT Standards Specifications.  |  |
| 85 | All cabinets shall be rated NEMA 3R or better.  |  |
| 86 | Type II Pole and Foundation in accordance with Section 1743 of the NCDOT Standards<br>Specifications and Roadway Standard Drawing 1743.02. Height shall be a maximum height of 10 feet.   |  |
| 87 | Type III Pole and Foundation in accordance with Section 1743 of the NCDOT Standards Specifications and Roadway Standard Drawing 1743.03. Height shall be a maximum height of 14 feet.   |  |
| 88 | Metal Strain Pole and Foundations shall be a maximum height of 50'. If cameras are mounted more than 30' from the roadside, a lowering device shall be supplied with the pole.  |  |
| 89 | The Contractor shall provide the installation requirements including acceptable tolerances for the system equipment, including all related plans and documents. The Contractor shall be fully responsible for the accuracy of its installation requirements.  |  |
| 90 | The Contractor shall prepare and submit the WWDDNS Installation Plan package to NCTA for review in accordance with the approved Project Schedule.   |  |
| 91 | The Contractor shall develop a half-size (11" by 17") set of drawings providing sufficient and accurate detail to install the system components.  |  |
| 92 | In addition, the drawing shall contain notes and other detail defining specific processes that cannot be graphically depicted. The notes shall also be used to delineate specifications, tolerances, special conditions, or any other factor required to install and integrate a fully functional system. |  |
| 93 | The Contractor shall indemnify all related parties as more fully described in the <b>Part IV</b> , <b>Terms and Conditions</b> for any damages that result from reliance on the installation requirements provided by the Contractor.   |  |
| 94 | The Contractor shall submit shop drawings detailing the installation design that shall be used onsite for installation work. Detailed drawings shall be provided for each site where equipment procured and supplied under the Contract shall be installed.   |  |
| 95 | Depending on the Scenario of the Task Order, the drawings shall include but not be limited to the following:  |  |
|    | a) equipment layout for each site;  |  |
|    | b) placement of the equipment at the site;  |  |
|    | c) lane geometry and dimensions of actual size and placement of all equipment;  |  |

| wrong- | Way Driver D | vetection and Notification Systems RFP Part III – Scope of Work and Requirements   |
|--------|--------------|--|
|        | d)           | a detailed drawing showing the equipment mounting brackets and mounting details of their installation;   |
|        | e)           | specifications and tolerances;   |
|        | f)           | detailed installation drawing for each piece of equipment;   |
|        | g)           | details related to the range of equipment adjustments;   |
|        | h)           | conduit and cable schedule showing all conduits, cables, and wires used for each WWDDNS location;  |
|        | i)           | detailed conduit layout for power and communications;  |
|        | j)           | all junction boxes and panels;   |
|        | k)           | any specific infrastructure limitations;   |
|        | l)           | details describing the termination process for each termination;   |
|        | m)           | lightning and surge suppression system;  |
|        | n)           | a graphical diagram of the network connectivity and data flow;   |
|        | o)           | detailed interconnection diagrams for all systems;   |
|        | p)           | detailed electrical schematics;  |
|        | (p           | detailed communications layout;  |
|        | r)           | equipment rack layout, including power panels and connection to the UPS, if applicable;  |
|        | s)           | a detailed diagram of the network connectivity, including IP scheme;   |
|        | t)           | server set-up and configuration; and   |
|        | u)           | other Hardware installation and connections  |
| 96     | The Contr    | ractor shall use only the latest approved drawing version for installation.  |
| 97     | related pl   | ractor shall provide the installation requirements for the equipment, including all<br>ans and documents. The Contractor shall certify the installation requirements<br>as accurate and appropriate for its intended purpose, to the satisfaction and approval |
| 98     | -            | tallation, the Contractor shall maintain a redline version of the drawing package that<br>ed to NCTA upon the completion of the installation.  |
| 99     | Document     | cation shall include memos denoting changes or modifications to Requirements.  |
| 100    |              | ractor shall submit detailed component-level network drawings showing all WAN, VLAN connections, including connection to the Traffic Management Center(s) and oplicable.   |

| 101 | The Contractor shall utilize a predefined range of IP addresses provided by NCTA. An IP schematic shall be submitted that shows all the IP addresses for all Contractor supplied equipment on the network.  |
|-----|---|
| 102 | The Contractor shall submit detailed instructions on the installation and configuration of the operating system, database, third-party Software, and application Software on the servers as customized for NCTA operations.   |
| 103 | All testing required to verify successful installation shall also be documented.  |
| 104 | The Contractor shall secure the services of a fully qualified engineering design firm(s) for the purpose of performing any necessary infrastructure-related engineering design (civil, structural, electrical, mechanical, and architectural) and the preparation of related plans and documentation under the Contract for any design that impacts life safety. The Contractor shall submit the name of the engineering design firms in its proposal for NCTA approval. Any changes to the engineering firm shall be required by the Contractor.   |
| 105 | All design work shall be performed under the direct supervision of a licensed engineer of the appropriate discipline in the State of North Carolina. All design professionals shall be licensed and authorized to practice in the State of North Carolina.  |
| 106 | The Contractor's design submittals shall not be required to be signed / sealed by a licensed engineer. However, should the Contractor provide custom manufactured infrastructure that is structural in nature or other structure(s) or appurtenances (e.g., equipment mounting brackets, equipment arms, etc.) that have the potential to impact life safety, the Contractor shall secure the services of a fully-qualified engineering design firm(s) licensed in North Carolina for the purpose of performing engineering design and the preparation of related plans and documentation under the Contract. |
| 107 | In addition, any electrical work performed in an occupied building shall require the seal of a licensed engineer of the appropriate discipline in the State of North Carolina.  |

## 2.3.4 Notification Requirements

Scenarios A, B, C, D, and E include providing and integrating detection into a notification platform.

| 100 |   |
|-----|---|
| 108 | The Notification system shall alert TMC personnel via email and/or text within 10 seconds of      |
|     | a vehicle passing through a detection zone travelling in the wrong direction. The email shall     |
|     | identify the location and time of the event and include a link to a video recording of the event. |
| 109 | The Notification system shall alert TMC personnel through a Contractor provided user              |
|     | interface via a pop-up alert within 10 seconds of a vehicle passing through a detection zone      |
|     | travelling in the wrong direction. The user interface pop-up alert shall be prominently           |
|     | displayed on the operator's monitor and include the time and location of the event and a five     |
|     |   |
|     | (5) second looping video from the confirmation camera of the vehicle passing through the          |
|     | zone.   |
| 110 | The Notification system shall be capable of displaying and alerting TMC personnel to system       |
|     | issues, including but not limited to power and communication failures.                            |

| 111 | Historical alert data and system statistics shall be accessible through configurable reports.  |
|-----|--|
|     | System statistics may include, but are not limited to, alert time, alert acknowledgement time, |
|     | response code, and device downtime.  |
| 112 | The Notification system shall secure 256-bit SSL encryption for user access. A user should be  |
|     | able to stay logged in for their entire shift to not impede response time. User management     |
|     | shall allow for approved users to create accounts and manage account specific alerts.          |

#### 2.3.5 Communications

Communication requirements apply to Task Orders in which fiber-optic and network infrastructure is being installed by the Contractor, specifically Scenario A and C.

| 113 | The Constructor will provide, terminate, and test the fiber connections. The Contractor is responsible for all network equipment/switching at the WWDDNS site and is responsible for all elements of the Local Area Network (LAN). The Contractor is responsible for Wide Area Network (WAN) connections to the NCTA TMC.  |
|-----|--|
| 114 | All communications shall conform to the <b>State of North Carolina, Statewide Information</b><br><b>Security Manual</b> ( <u>https://it.nc.gov/documents/statewide-policies/statewide-information-security-manual</u> ). All networking equipment at the WWDDNS sites and other locations necessary to provide full communication capabilities to meet the Requirements in this SOW shall be provided by the Contractor. |
| 115 | The Contractor shall allocate a range of IPv4 class C addresses, and all networking addressing shall be coordinated with NCTA. The Contractor provided LAN equipment shall be capable of supporting IPv6 addresses.  |
| 116 | The Software tool shall utilize the Simple Network Management Protocol (SNMP) to poll devices real-time for status where possible.   |
| 117 | If communications to any element of the WWDDNS are down, an alarm shall be generated and reported.   |
| 118 | The Contractor shall provide network security at all WWDDNS locations and shall comply with the security policy as described in the <b>State of North Carolina, Statewide Information Security Manual.</b>   |
| 119 | The LAN within a site shall be connected by CAT6 (or higher) cabling. The LAN connections may either be CAT6 or fiber-optic cable, according to the Contractor's design.   |
| 120 | The Contractor shall coordinate with NCTA and the Constructor regarding overall network design and splicing for the physical network between the sites. Once network design is finalized, the Contractor shall certify in writing that network design meets all WWDDNS needs.  |

#### 2.3.6 Other ITS

Scenario G involves the design, implementation, integration, and testing of proposed intelligent transportation system devices for the purpose of alternative detection and deterrence. For example, detection of other traffic anomalies besides wrong-way drivers or communication to and from connected vehicles.

121 The Contractor shall assist NCTA in reviewing all aspects of the ITS design revisions, construction submittals, catalog cuts, etc.

| 122 | The Contractor shall design, furnish, install, and commission additional ITS devices if deemed necessary to meet the Functional Requirements. The Contractor shall be responsible for any additional costs.   |
|-----|---|
| 123 | The Contractor shall also coordinate and be available onsite as needed during the acceptance test of the ITS performed by the Constructor and shall be responsible for signing off that the ITS is performing in accordance with the Contractor's Requirements. |
| 124 | The Contractor shall complete the commissioning and integration of the ITS to the RTCS, if required.  |
| 125 | The Contractor shall be responsible for the integration of ITS to existing tools used by the nearest TMC such as an ATMS.   |

#### 2.3.7 **RTCS** Integration

The Contractor shall integrate Wrong-Way Driver Detection and Notification Systems with existing RTCS toll site(s) as part of Scenario D and potentially Scenario C.

| The Contractor shall coordinate and be available onsite as needed during the acceptance test<br>of the unique WWDDNS performed by the Constructor and shall be responsible for signing off<br>that the system is performing in accordance with the Contractor's Requirements. |
|---|
| The Contractor shall be responsible for integrating the system to the RTCS/RSS and meeting all WWDDNS Functional Requirements.  |

## **2.4 Installation Requirements**

The Contractor shall submit an Installation Plan that identifies its approach to installation and drawing package submissions, and covers the major elements of the installation, including coordination with Constructor and existing systems. The plan shall also detail the transition of the WWDDNS into operations.

#### 2.4.1 Installation Plan

| 128 | The Contractor shall develop an Installation Plan that documents all installation-related activities for the project. The Installation Plan shall be the master document from which the elements of the WWDDNS shall be installed.  |
|-----|---|
| 129 | The Installation Plan shall include and define, at a minimum, the following items:  |
|     | <ul> <li>a) The installation schedule detailing all activities, shifts, and resources for the installation<br/>of the WWDDNS including third-party and Constructor activities. Once the baseline<br/>schedule is approved by NCTA, the Constructor shall provide Updates during the<br/>installation periods identifying all schedule changes and work progress in the form of<br/>percentage completions shall be submitted to NCTA for approval.</li> </ul> |
|     | b) The minimum resource allocation requirement for any installation and segment including sequencing of installation and testing.   |

| <u> </u> |   |
|----------|---|
| c)       | How the Contractor manages delivery and staging of the WWDDNS equipment to be<br>installed, including any staging, installation, and testing performed by the Contractor or<br>third-party facilities and their subsequent delivery and installation at the production<br>sites.  |
| d)       | The coordination between other contractors, including the Constructor, and service providers.   |
| e)       | Coordination of any travel lane or shoulder lane closures with NCTA and NCDOT for the duration of the Project.  |
| f)       | Coordination activities as applicable to other third-party entities for the various interfaces.   |
| g)       | Testing of the Contractor-provided LAN and WAN communications for connection to the NCTA provided TMCs.   |
| h)       | QC, QA inspection, and testing processes including validation of Contractor installation to the Requirements of the Contract installation drawings.   |
| i)       | The order in which equipment items are to be installed with estimated durations.  |
| j)       | Special or unique installation requirements.  |
| k)       | A detailed component list and a description of how each item version number and serial<br>number shall be recorded for each installation and configuration into the ATMS system.  |
| l)       | A record keeping method such as the daily work reports identifying, at a minimum, the date, location, weather conditions, staff on site and classification, tasks completed, visitors, MOT, issues and resolution, and communications to other parties. These daily reports shall be delivered at the end of each work week to NCTA for review during the upcoming week installation meeting. |
| m        | ) Contractor Organization Chart defining key team personnel, roles, and responsibilities, and contact information. All Subcontractors shall be identified.  |

## 2.4.2 Installation Checklists

| 130 | The Contractor shall develop an installation checklist that tracks the progress and completion of all WWDDNS installation activities.   |
|-----|---|
| 131 | The checklist shall be the document detailing those items required for the installation crew and technical team to complete the installation process for all equipment and components, including terminations, connections, and configurations. |
| 132 | A copy of the checklist signed and approved by the Contractor, attesting to the completeness of the installation, shall be provided to NCTA after the completion of the installation activities for each site.                                  |
| 133 | The Contractor shall conduct a final inspection of all installations and certify the installation work.   |

| 134 | NCTA reserves the right to obtain the services of a certified engineer to witness the Contractor inspection and conduct an independent inspection. The Contractor shall coordinate and support such inspections at each site. |
|-----|---|
| 135 | The checklist shall identify all non-conformances, discrepancies, and exceptions, and the Contractor shall be responsible for all corrections.  |
| 136 | The checklist shall document all changes identified during the installation process, and all such changes shall be approved by NCTA or its designated representative.   |

### 2.4.3 Electrical Work

| 137 | Electrical work to be performed under this Contract shall include, but not be limited to the following general items of work:  |
|-----|--|
|     | a) Provide and install Surge Protection Devices (SPD) as required to protect all equipment and electronics.  |
|     | b) Install junction boxes and terminate new cable and conduit attachment devices, where applicable.  |
|     | c) Bond all conduits, manhole frames, and other conductive items to the grounding system in conformance with the NEC.  |
| 138 | All electrical work shall be performed in accordance with the applicable regulations and approved by NCTA and NCDOT. Appropriate NEC compliance shall be adhered to with all electrical articles for installation pertaining to wiring, enclosures, and other electrical equipment in hazardous locations. UL labels shall be provided for all electrical panel boards, enclosures, and accessories. |
| 139 | All electrical equipment must be inspected prior to installation for defects that could damage<br>the equipment or harm personnel. Any equipment found to have defects shall not be installed<br>but shall instead be replaced with a fully functioning replacement.   |
| 140 | All electrical equipment shall be properly grounded for safety. Equipment shall be furnished with grounding pads or grounding lugs. All ground connections shall be cleaned immediately prior to connection.   |
| 141 | The Contractor shall provide all grounding material required for installation of the Contractor equipment and all installations shall be in compliance with the applicable standards.  |

### 2.4.4 General MOT Requirements and Conditions

For installation and/or testing on existing facilities, like Triangle and Monroe Expressway, MOT is to be provided by the Contractor and shall meet the following conditions. For testing on new facilities, MOT may need to be provided by the Contractor and shall meet the following conditions.

| 142 | The Contractor shall cooperate with NCTA, NCDOT and the Constructor, as applicable, to   |
|-----|--|
|     | minimize the required number of lane closures and to maximize the use of other scheduled lane  |
|     | closures. The Contractor shall transmit all lane closure requests to NCTA for approval.  |
|     | The Contractor shall work with NCTA and agree to a reasonable plan for scheduling and approving lane closures, including a procedure for advance notice of cancellations of lane closures and allowable conditions for such cancellations as described in this SOW and Requirements. |

| wrong- | Way Driver Detection and Notification Systems RFP Part III – Scope of Work and Requirements   |
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| 144    | For all lane closures, the Contractor shall conform to the latest versions of the NCDOT Standard<br>Specifications for Roads and Structures and the NCDOT Roadway Standard Drawings for<br>regulations for MOT activities during the maintenance period.<br>The NCDOT Standard Specifications for Roads and Structures and the NCDOT Roadway Standard<br>Drawings are located at:<br>https://connect.ncdot.gov/resources/Specifications/Pages/default.aspx  |
| 145    | By 12:00 p.m. Thursday, the Contractor shall submit to NCTA and NCDOT a written closure schedule that details the schedule of planned closures for the following week period, defined as Sunday 12:00 p.m. through the following Sunday 12:00 p.m.  |
| 146    | The closure schedule request shall show the locations and times of the proposed closures. The closure schedule shall be submitted in the format requested by NCTA and NCDOT and must be made in accordance with NCDOT lane closure requirements and in observation of the lane closure restriction for designated legal holidays. Closure charts for freeway/Express Lane and multilane requirements and the lane closure restriction for designated legal holidays may be obtained upon request from NCTA. |
| 147    | Closure schedules requests submitted to NCTA with incomplete or inaccurate information shall<br>be rejected and returned for correction and resubmittal. The Contractor shall be notified by<br>NCTA and/or NCDOT of disapproved closures or closures that require coordination with<br>other parties as a condition of approval.   |
| 148    | Closure schedule request amendments, including adding additional closures, shall be submitted<br>by 12:00 p.m. to NCTA and NCDOT, in writing, at least three (3) Business Days in advance of<br>a planned closure. Approval of closure schedule amendments shall be at the discretion of NCTA.<br>NCTA will be notified of canceled closures two (2) Business Days before the date of the closure.<br>Closures that are canceled due to unsuitable weather may be rescheduled at the discretion of<br>NCTA. |
| 149    | Any work involving removal/relocation of equipment (both existing equipment and the Contractor's equipment), loosening or removal of nuts/screws, cables, connectors, etc., shall be done with appropriate lane closures during a nighttime period or off-peak hours and in accordance with NCTA approved lane closures.  |
| 150    | If extended lane closures (lane closure exceeding 2 hours) are required, the lane closures shall be completed between the hours of I I:00 P.M. EST and 6:00 A.M. EST, excluding holiday periods as set forth in the lane closure requirements.  |
| 151    | Lane closures scheduled for less than 2 hours shall be approved by NCTA and NCDOT in accordance with the documentation provided on the website, and shall not occur during peak traffic times, and shall be solely at NCTA's and NCDOT's discretion.  |
| 245    | Installation and Construction Coordination and Meetings   |

#### 2.4.5 Installation and Construction Coordination and Meetings

The Contractor shall coordinate all installation activities with NCTA to ensure all WWDDNS equipment specifications are addressed in the design and installation of all roadway infrastructure. During installation and construction meetings, it shall be required that both NCTA and NCDOT be represented to clearly define and develop the installation requirements, methodology, timetables, test plans, and roles. The Contractor is responsible for coordinating with NCTA any meetings necessary with the Constructor or other NCTA contractors to meet the Requirements of this Contract.

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| 152      | The Contractor shall schedule, manage, and attend weekly installation meetings during the active design and installation of the Project and report on the progress of the installation. The Contractor shall identify and communicate any issues regarding system construction and installation immediately upon discovery to the Constructor, NCDOT, and NCTA.   |  |
| 153      | The Contractor shall ensure that the appropriate personnel is present at these meetings who can represent the Contractor's interest and provide the information necessary in a meaningful manner.   |  |
| 154      | Prior to the meeting, the Contractor shall update the installation schedule based on the construction schedule, and all changes shall be identified.  |  |
| 155      | The Contractor shall prepare and distribute a meeting agenda at least forty-eight (48) hours<br>prior to the scheduled meeting. The meeting agenda shall consist of those items pertaining to<br>the installation and schedule for the previous and current week's installation efforts and for an<br>agreed to "look ahead" period. The meeting agenda should include any potential risk items<br>identified and corresponding mitigation efforts. |  |
| 156      | It is the Contractor's responsibility to make sure all issues that arose during the installation activity for the week are addressed and resolved or are scheduled for resolution.  |  |
| 157      | At these meetings, the Contractor shall also be prepared to address any issues or questions raised by the Constructor, other contractors, and NCTA or its representatives.  |  |
| 158      | The Contractor shall document the meeting discussions and distribute the meeting minut<br>within one (1) Business Day to everyone from the team invited to the meeting. It shall be up<br>the recipients of the meeting minutes to distribute to other interested parties. The Contract<br>shall also record and maintain an action items list that tracks all installation-related issues.   |  |

## 2.4.6 Construction Coordination

The Contractor shall coordinate all installation activities with NCTA, the Constructors, any Subcontractors, and NCDOT to ensure all WWDDNS equipment specifications are addressed in the design and installation of all roadway infrastructure, where applicable.

| 159 | The Contractor shall coordinate all installation activities with NCTA, NCDOT, and the Constructor.   |
|-----|--|
| 160 | Prior to the start of any installation activities the Contractor, including any Subcontractors, shall complete the safety orientation provided by the Constructor. |
| 161 | The Contractor shall participate in the design and installation of the infrastructure on the Roadway, including but not limited to:                                |
|     | a) review and reach consensus on all WWDDNS related equipment submittals;  |
|     | b) review and reach a consensus of the network design provided by the Constructor;   |
|     | <ul> <li>c) support and supply all information requested by the Constructor and civil designer in<br/>the form of a Request for Information (RFI);</li> </ul>      |
|     | <ul> <li>review and reach consensus on all Constructor-provided drawings with respect to the<br/>WWDDNS; and</li> </ul>  |
|     | e) of such drawings related to the WWDDNS.   |

#### **2.5 Testing Requirements**

| 162 | The Contractor shall provide a Master Test Plan (MTP) at least fourteen (14) Calendar Days<br>prior to the start testing. The Master Test Plan shall also describe how the Contractor shall<br>execute each of the test activities as outlined in these requirements. The MTP shall describe<br>testing planned by the Contractor in each test, entry and exit test criteria, test tools, test roles<br>and responsibilities. The MTP shall include test cases based on the NCTA provider use cases.<br>The test cases shall then be made up of test procedures with step-by-step instructions to verify<br>the use cases.                  |
|-----|---|
| 163 | The Master Test Plan shall detail the Contractor's plan to perform each of the tests in order to satisfy NCTA use cases as described in <b>Attachment I: Use Cases</b> .<br>a) Onsite Installation Testing (OIT); and<br>b) System Acceptance Test (SAT).   |
| 164 | The Contractor shall plan and execute a baseline test known as Onsite Installation Test. (OIT).<br>The purpose of the OIT is intended to validate that the system meets all use cases as outlined<br>in <b>Attachment I: Use Cases</b> and proposed by the Contractor in its proposal at a single site.<br>NCTA and the Contractor may choose to conduct the OIT on additional facilities as mutually<br>agreed and if it benefits both parties. The OIT shall also configure the system to verify that the<br>WWDDNS can meet all Use Case requirements. The Contractor shall propose any exceptions<br>that must be simulated in the MTP. |
| 165 | The Contractor shall plan and execute a baseline test known as System Acceptance Test (SAT) following implementation and integration phase. The purpose of the SAT is intended to resolve any remaining punch list items, review and to confirm that the system meets all requirements in accordance with Section 5.3 of Part III, Scope of Work and Requirements and Attachment I: Use Cases.  |
| 166 | If testing is planned to be performed in a closed ramp, refer to Section 2.4.5 General MOT Requirements and Conditions.   |

# 2.6 Training Requirements

The Contractor shall provide comprehensive training for all aspects of the WWDDNS. The training should include, but not be limited to the operations, system monitoring, problem detection and resolution, and Maintenance of the WWDDNS. The training program shall recognize and incorporate the plan for NCTA to operate the system. As such NCTA operations staff shall be fully trained to successfully perform all aspects of the operating the WWDDN system. <u>The Contractor is required to provide all training documentation including all manuals for maintenance. The Contractor shall train NCTA or its designated staff on how to provide Routine/Daily (Level I and II) Maintenance <u>Services.</u></u>

167 The Contractor shall develop and submit a Training Plan for NCTA approval in accordance with the approved Project Schedule that describes the approach to training supervisors, administrators, end-users, maintenance, and support personnel.

| 168 | The Training Plan shall describe the plan for training new personnel and shall outline the required operational/maintenance and system knowledge for each position to be gained from the training.                      |
|-----|---|
| 169 | The plan shall include a training instructor guide, training manual, and other materials to be used in training.  |
| 170 | The Contractor's training shall be hands-on and use actual hardware and software in the training environment.   |
| 171 | The Contractor shall agree that NCTA staff, or their representatives, may attend any training sessions and may make recordings and/or copies of all training program materials for their use in training new employees. |

### 2.6.1 Manual Requirements

Various manuals shall be provided as described below to allow NCTA to understand the operations of the WWDDNS. New manuals developed under this Contract that are not standard commercial catalogs or manuals, shall meet the requirements set forth in this Section 2.6.1 of **Part III, Scope of Work and Requirements.** 

| 172 | The Contractor shall submit the project manuals to NCTA for review and approval in accordance with the approved Project Schedule.  |
|-----|--|
| 173 | Each manual shall include, but not be limited to a title sheet; revision history; table of contents;<br>list of illustrations (if applicable); and list of reference drawings and exhibits (if applicable).                                |
| 174 | All manuals shall have a consistent look and feel and shall be professionally written and presented in clear and organized fashion.  |
| 175 | All manuals prepared for NCTA under this Contract shall be produced, or editable, using Microsoft Office Suite. In addition, electronic copies of manuals shall be provided in native file format and unsecured PDF, if requested by NCTA. |
| 176 | Any special software required to produce scalable typefaces or other graphs shall be provided<br>by the Contractor as part of the documentation for the manuals.   |

### 2.6.2 Manual Submissions

177 The Contractor shall submit electronic copies of the following manuals: Maintenance Manual, User Manuals for all Devices, and Standard Operating Procedures for the Notification System as applicable.
 178 All manuals shall be maintained in electronic format in the NCTA-provided document management system.

### 2.6.3 Maintenance Manual

| The Contractor shall submit the WWDDNS Maintenance Manual prepared for properly trained technical personnel assigned to the maintenance of the hardware and software installed as part of this Project. |  |
|---|--|
| The Maintenance Manual shall document information required to support roadside maintenance<br>and repair activities, including but not limited to   |  |
| a) equipment layout for each location type;   |  |

|     | b) schematics and layouts of the Hardware in the cabinets, equipment racks, and the interconnection diagrams;  |
|-----|--|
|     | c) parts lists required to service each piece of hardware installed under this Project;  |
|     | d) detailed monitoring activities, specialty tools, and schedule;  |
|     | e) detailed software monitoring activities and troubleshooting procedures;   |
|     | f) maintenance instructions to repair and replace parts and modules;   |
|     | g) mechanical functions and installation of all hardware;  |
|     | h) listing of all event and error logs;  |
|     | i) testing and basic troubleshooting procedures; and   |
|     | j) preventative and corrective maintenance procedures.   |
| 181 | Standard service manuals for commercial products used for the equipment shall be acceptable if they contain sufficient information to service and maintain the equipment properly. This information shall be included in the Maintenance Manual. |
| 182 | Photographic documentation of equipment with appropriate labels and callouts are satisfactory if they contain sufficient information to identify components, parts, and features properly.   |

### 2.6.4 User Manual and Standard Operating Procedures

The Contractor shall provide a comprehensive set of system documentation and user manuals for the WWDDNS users. At a minimum, the documentation shall include all user and operating manuals, screen layouts, reports definitions, and data flow diagrams.

| 183 | The Contractor shall provide a User Manual and/or Standard Operating Procedure (SOP) to be used by NCTA staff to operate the WWDDNS as well as for training purposes.       |
|-----|---|
| 184 | The manual shall include screen images detailing the step-by-step activities that need to be completed in order to fulfill a specific functionality.                        |
|     | Samples of all reports and analytics, included in the manual or as an attachment to the SOPs, with any specific instructions that may apply to a given report or analytics. |

### 2.6.5 Third-Party Documentation

Third-Party documentation includes standard commercial documentation for third-party provided Hardware, Software, Services, and materials.

| 186 | The Contractor shall catalog all third-party documentation and include the catalog with the third-party document submissions.  |
|-----|--|
| 187 | The Contractor shall provide and maintain the standard, commercially available, Updated documentation for third-party provided Hardware, Software, services, and materials provided under this Contract. This set of third-party documentation shall be retained at the NCTA offices for the duration of this Contract and upon the termination of the Contract. |
| 188 | All Updated documents shall show the revisions and include a version of the clean document.  |

| 189 | An electronic copy of all third-party COTS Hardware and Software installation and user            |
|-----|---|
|     | manuals, with updates, shall be provided to NCTA. Acceptable electronic formats are Microsoft     |
|     | Office 2019 Suite (or most current version), unsecured PDF and professional CAD applications.     |
| 190 | Documentation shall include sufficient detail to describe the configuration of the Software as it |
|     | was installed by the Contractor for the WWDDNS. These should include any customization or         |
|     | modifications made to the Software or configurations specific to the NCTA environments.           |

## 2.7 Maintenance Requirements

NCTA and Contractor's responsibilities for providing Maintenance Services and associated communications during the Maintenance Phase of the Contract are described herein. Maintenance shall be divided into three Maintenance levels as described below.

- 1. Level I Maintenance is defined as assignment and triage of incidents and issues and reporting and monitoring.
- 2. Level II Maintenance means corrective and preventative maintenance that requires minor Software configuration, Equipment replacement and configuration, planned shutdown and minor preventative actions including analysis of log files to ensure that the systems operate in accordance with the Functional Requirements.
- 3. Level III Maintenance means corrective and preventative maintenance for all patch management, Software changes and major changes to the system functionality. Level III Maintenance also includes 24/7 remote support for Level I and II maintenance staff.

The requirements in this Section describe Services to be provided by the Contractor under the category of Maintenance. The WWDDNS maintenance Scope of Work will be defined in Task Orders. Details and associated pricing for maintenance services will be determined in each project Task Order, as applicable.

NCTA and Contractor's responsibilities for providing maintenance services and associated communications during the maintenance phase of the Contract are described herein. The Contractor shall provide maintenance services for all work described below, as applicable to the project Task Order:

- a) Roadside equipment;
- b) System Hardware Maintenance (servers, storage, network switches, firewalls, routers, etc.);
- c) System administration;
- d) Software support services;
- e) Network administration;
- f) Database administration;
- g) Monitoring services;
- h) Preventive maintenance; and
- i) Corrective maintenance.

Third parties, designated by NCTA, shall perform the following services, including but not limited to:

- a) Ongoing participation with NCTA's maintenance staff and involvement in meetings and processes.
- b) Provision of an ample spare parts inventory to meet all Functional Requirements if required by NCTA; and

The Contractor shall be responsible for coordinating with the Constructor for any equipment failures which occur during the manufacturer's warranty period for elements provided by others.

The Contractor shall provide maintenance services for:

- a) All maintenance work for a base period of up to 5 years; and
- b) All maintenance work for two optional 3-year periods.

#### 2.7.1 Maintenance Plan

The Contractor shall submit a Maintenance Plan that describes how the Contractor plans to maintain the entire System including preventative and corrective maintenance and any required coordination with NCTA and NCDOT in accordance with the Requirements of the Contract. The Contractor shall have appropriate documentation available to all maintenance and software support personnel, as required to perform their respective duties.

|    | laintenance Plan defines the approach to services, staffing, and resources to fulfill the enance requirements. The Maintenance Plan shall include:   |
|----|--|
| a) | organizational structure, organizational chart, and job descriptions and responsibilities;   |
| b) | detailed matrix of responsibilities (NCTA and Contractor);   |
| c) | staffing plan;   |
| d) | approach to staffing and training;   |
| e) | detailed system monitoring requirements;   |
| f) | coverage and personnel locations;  |
| g) | third-party system support agreements overview;  |
| h) | schedule of all system maintenance activities;   |
| i) | all system maintenance related communication methods;  |
| j) | maintenance procedures, communication protocols, and approval processes for system<br>and software upgrades, scheduled maintenance activities, software releases, change<br>management and scheduled downtime; |
| k) | maintenance procedures and communications protocols for unscheduled downtime;  |
| l) | communication protocol for coordination with NCTA operations and third-party entities;   |
| m) | communication protocol for coordination with NCTA's existing system integrators;   |
| n) | trouble reporting processes;   |
| o) | escalation processes;  |
| p) | spare parts levels and reorder thresholds, equipment, and software warranty tracking and return material processes;  |
| (p | monitoring the ITSM dashboards;  |
| r) | monitoring maintenance performance for compliance to Functional Requirements;  |

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|     | s) sample maintenance reports;   |
|-----|--|
|     |  |
|     | t) equipment obsolescence/replacement/refresh schedule;  |
|     | u) Upgrades to third-party software and tools;   |
|     | v) process in place to meet maintenance Functional Requirements; and   |
|     | w) pervasive methodology and activities.   |
| 192 | The Maintenance Plan shall detail the Contractor's software maintenance and warranty program including the approach to services, staffing, and resources to fulfill the Software maintenance requirements including but not limited to:  |
|     | a) all software maintenance related communication methods;   |
|     | b) approach to receiving and prioritizing software defects (bugs);   |
|     | c) reporting, categorization, prioritization, remediation, and disposition of Software defects;  |
|     | <ul> <li>maintenance procedures, communication protocols, and approval processes for software<br/>upgrades, software releases, testing, scheduled maintenance activities, change management<br/>and scheduled downtime;</li> </ul>   |
|     | e) software updates and testing to comply with interoperability specification changes, and third-party interface changes; and  |
|     | f) software and security updates, remediation and testing to be compliant to NCTA Audit Requirements.  |
| 193 | The Maintenance Plan shall detail the Contractor preventative maintenance program in accordance with this SOW and Requirements.  |
| 194 | The Contractor shall provide a preventive maintenance schedule as part of the Maintenance<br>Manual. The schedule shall detail the preventive maintenance to be performed on each<br>equipment item and system. The schedule shall provide a description of the work to be<br>performed, expected duration, and the frequency. |

## 2.7.2 Maintenance Services

| 467 | The Contractor shall provide all maintenance activities associated with the WWDDNS maintenance and Software support services throughout the term of the Contract as further set forth in this SOW and Requirements.  |
|-----|--|
| 468 | Hardware, software, and WWDDNS Maintenance Services shall be provided from Acceptance of WWDDNS through the end of Contract Term (including extensions) as further set forth in <b>Part IV, Terms and Conditions</b> with full warranties as further set forth therein.  |
| 469 | The Contractor shall provide a software license and associated escrow as further set forth in <b>Part IV, Terms, and Conditions</b> .  |
| 470 | In the Maintenance Phase, maintenance shall include all services required to maintain the WWDDNS, including hardware, equipment, software, and components at the required performance levels. NCTA will not be charged any additional amounts beyond those included in the approved price proposal for all services related to maintenance; notwithstanding the foregoing, force majeure events shall be as set forth in the Contract as further set forth in <b>Part IV, Terms and Conditions</b> . |

| 47 I | All equipment mounting hardware and brackets provided as a part of this SOW and                    |
|------|--|
|      | Requirements shall be included under Maintenance Services and, as such, shall be warrantied for    |
|      | the life of the Contract.  |
| 472  | If required by the Contractor, NCTA approved repair or other services that fall outside the        |
|      | Maintenance Services described herein shall be invoiced at the service rates as defined in Exhibit |
|      | D-6.   |

# 2.7.3 WWDDNS Warranty Program

| 473 | The Contractor shall be responsible for the development, implementation, and administration of a warranty program for all hardware, Contractor developed, and third-party software as further set forth in <b>Part IV, Terms and Conditions</b> .   |
|-----|---|
| 474 | The Contractor shall maintain warranty records and service agreements for all hardware and third-party software and shall review and implement Software Upgrades and available patch reports to keep the WWDDNS current per the approved Management Plan and as further set forth in <b>Part IV, Terms and Conditions</b> . |

#### 2.7.4 Detailed Maintenance Requirements

The Maintenance Services may include monitoring; preventive; pervasive; corrective; security related and emergency Maintenance Services and certain upgrades and enhancements to be performed on all elements of the System. Maintenance scope will be determined with each Task Order.

| 475 | All Mai | ntenance incidents, activities and monitoring include, but are not limited to:  |
|-----|---------|---|
|     | a)      | monitoring the WWDDNS for failures and alarms and confirm an ITSM system work<br>order has been created for each failure as defined in the system design; |
|     | b)      | acknowledging and responding to work orders assigned to the Contractor;   |
|     | c)      | creation and assignment of a work order in ITSM system if a work order has not been created;  |
|     | d)      | performing the necessary maintenance and closing the ITSM system work order upon<br>confirmation that the failure has been successfully corrected;        |
|     | e)      | monitoring and maintenance of the production, data warehouse, and test environments;  |
|     | f)      | updates to operating system and software infrastructure in the production, data warehouse and test environments;  |
|     | g)      | performing preventive maintenance in accordance with an approved Maintenance Plan;  |
|     | h)      | general equipment and hardware maintenance, replacement, and spare parts inventory in ITSM system;  |
|     | i)      | general inspection and maintenance of roadside devices and infrastructure;  |
|     | j)      | ongoing monitoring, updates, maintenance tasks related to roadside subsystems, operations, controllers, servers, and storage systems;                     |
|     | k)      | address and resolve third-party software issues (OS, third-party, peripheral and infrastructure Software);  |

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|--------|-----------|---|
|        | l)        | monitoring, updating and general maintenance and troubleshooting of LAN communications and associated devices;  |
|        | m)        | monitoring, updating, and general maintenance and troubleshooting of both active and redundant LAN/WAN communications and associated devices;   |
|        | n)        | maintaining the ongoing relationship (support and maintenance agreements) with third-<br>party vendors;   |
|        | o)        | performing software licensing renewals;   |
|        | p)        | performance of all system administrative functions at regular intervals if not automated<br>and recording and tracking such activities as preventive maintenance work orders<br>through ITSM system;                                      |
|        | q)        | continuous monitoring of system operations to verify WWDDNS is functional; security posture is adequate; processes are being executed as scheduled; files are transmitted as specified, and WWDDNS is operating to Contract Requirements; |
|        | r)        | analyzing anomalies and periodic, daily, and weekly trends to identify problems and<br>initiating an investigation and subsequent correction.   |
|        | s)        | monitoring of error logs and system logs;   |
|        | t)        | maintenance of up-to-date software backups (all system Software and data);  |
|        | u)        | installation of new software and confirmation of successful installation;   |
|        | v)        | assisting NCTA operations staff as requested by NCTA;   |
|        | w)        | troubleshooting WWDDNS issues;  |
|        | x)        | creation of ad-hoc data queries requested by NCTA;  |
|        | у)        | generation of queries as requested by NCTA; and   |
|        | z)        | analysis of data as requested by NCTA.  |
| 476    | Work      | orders and alerts assigned to the Contractor, as defined during the design;   |
|        | a)        | development of defect fixes, security fixes, performance fixes and corrections to the software and applications as identified during audits;  |
|        | b)        | updates to all software drivers to meet any new standard operating system Upgrades as they become available;  |
|        | c)        | software changes that are necessary or required to meet the system requirements, parameter changes, or configuration changes;   |
|        | d)        | source code maintenance;  |
|        | e)        | perform internal testing prior to releasing fixes to production;  |
|        | f)        | ongoing software warranty maintenance as set-forth in the Contract; and   |
|        | g)        | change management and configuration management tasks prior to software and hardware changes.  |

| 477 | Preventive or Corrective maintenance requiring lane closure shall be scheduled by the Contractor for off-peak travel periods, evenings, Saturdays, and Sundays and coordinated with NCTA, so that the work shall not interfere with normal traffic flow unless otherwise approved by NCTA. MOT must conform to the latest version of the NCDOT Standard Specifications for Roads and Structures. |
|-----|--|
| 478 | Contractor shall notify NCTA by email before any corrective maintenance is performed.<br>Notification shall include description of a problem or condition, typically provided by NCTA or<br>its representatives. The time of receipt email shall signify the start of the response time.   |
| 479 | Notwithstanding the foregoing, for the repeated failure of equipment, components, or systems, the Contractor shall undertake an investigation. If the problem is determined by NCTA to be a pervasive defect, the Contractor shall be responsible for resolution as set forth in <b>Part IV</b> , <b>Terms and Conditions</b> .  |

## 2.7.5 Upgrades and Enhancements

| 480 | The Contractor shall provide in electronic format all patches and updates made to the Notification software.  |
|-----|---|
| 481 | Upgrades and enhancements shall be proposed by the Contractor or requested of the Contractor in accordance with the change order/extra work order process as set forth in <b>Part IV, Terms, and Conditions</b> . Examples of upgrades and enhancements include but are not limited to accommodating major changes to standards, statutes, or interoperability equipment or the addition of new equipment or functionality providing demonstrable benefits in performance, costs, or productivity.  |
| 482 | Software modifications required to maintain and support the WWDDNS as a part of the normal course of business shall not be considered Upgrades or enhancements paid for by NCTA. These modifications include but are not limited to patches and security updates, version changes; configuration or parameter changes; minor changes to software or code. Software modifications required to ensure WWDDNS is compliant to existing standards and changes for the Contractor's benefit that improve the Contractor's ability and efficiency to maintain and support the WWDDNS. |

## 2.7.6 Spare Parts

This Section 2.7.6 details the Contractor's responsibilities regarding spare part management for the duration of the Maintenance Phase. Spare parts inventory and tracking will be determined in each Task Order.

## 2.7.6.1 Spare Parts Inventory

| 483 | Contractor shall develop and submit the initial spare parts inventory list as part of the Maintenance Plan to NCTA for review and Approval.                                       |
|-----|---|
| 484 | The spare parts inventory list shall identify all parts, equipment, and components used in Contractor's solution and the recommended quantities of each.                          |
| 485 | The spare parts inventory list shall include guaranteed delivery lead time for each part.   |
| 486 | The spare parts inventory list shall include part description, model number (if any), vendor and original equipment manufacturer (where applicable), part number, and part price. |

487 The Contractor shall, on an annual basis, update and resubmit the spare parts inventory list to NCTA for review and Approval.

### 2.7.6.2 Procurement and Control of Spare Parts

| 488 | Contractor shall deliver spare parts to the designated Level I/II maintenance provider. The Level I/II maintenance provider will maintain physical control of the spare parts.  |
|-----|---|
| 489 | The spare parts shall be purchased on behalf of NCTA and shall be owned by NCTA.  |
| 490 | Contractor shall coordinate with the designated Level I/II maintenance provider as to the location and times that parts will be delivered, and the storage space required to warehouse the spare parts inventory.   |
| 491 | The spare and replacement parts, components, and equipment provided shall be new, unused items and not refurbished unless specifically authorized by the purchaser.   |
| 492 | The Level I/II maintenance provider shall inspect all incoming materials prior to use to determine if any items are defective or damaged. Defective or damaged items received by the Level I/II provider shall be returned to the Contractor for replacement at no expense to NCTA. |

## 2.7.6.3 Spare Parts Availability

| 493 | If the Contractor receives notification from a component source that the source has discontinued carrying the item, or that the source has been acquired by another source, the Proposer shall notify NCTA in writing of such within fourteen (14) Business Days.  |
|-----|--|
| 494 | The Contractor shall also provide an assessment on the impact on any parts, timeframe for continuing to order the current part before potential non-availability, and available alternatives should there not be a substitute that will allow the equipment to meet its original performance requirements. |

## 2.7.7 Maintenance and Software Support Records

| 495 | NCTA will have access to all maintenance and software service records at any time for review<br>and audit, upon reasonable notice. The Contractor shall provide monthly reports generated in<br>the WWDDNS that permits NCTA to evaluate device health and maintenance performance.<br>The Contractor shall provide a template prior to system acceptance for NCTA review and<br>approval. |
|-----|--|
| 496 | The Contractor's maintenance manager shall maintain current, complete, and accurate records<br>for all maintenance and software support services activities. The Contractor's maintenance<br>manager shall institute procedures that make sure the maintenance staff enters complete<br>information into the ITSM before closing a work order or trouble ticket.                           |
| 497 | All preventive, pervasive, and predictive maintenance activities shall be reported in the same manner as corrective or emergency maintenance activities by the Contractor. The information shall be contained on the ITSM and shall be made available through various ITSM system reports.   |

## 2.7.8 Recording of Maintenance Activities
| 498 | The Contractor and NCTA will utilize the ITSM for initiating the work orders. ITSM shall be<br>utilized for recording and tracking all maintenance and Software support services performed on<br>the WWDDNS. Additionally, all equipment provided under this Contract shall be tracked<br>through ITSM from the purchase to their disposal. |
|-----|---|
| 499 | In all cases, the Contractor is responsible for logging all reported maintenance activities into the ITSM. The Contractor shall also be responsible for documenting all information and issues related to a failure condition, including all actions taken to complete the correction into the ITSM.  |
| 500 | The work order shall contain as much information as possible in order for persons other than<br>the technician or his supervisor to reasonably determine the fault, when it was worked on, the<br>corrective action, and any other information pertaining to the individual maintenance event,<br>including replacement of parts.           |
| 501 | All Maintenance performance metrics shall be recorded and tracked through the ITSM, and compliance to Functional Requirements shall be validated using ITSM reports.  |
| 502 | It is the Contractor's responsibility to ensure that its maintenance staff has real-time access to<br>the ITSM and that all the required connections are established and ongoing to ensure that the<br>maintenance staff has secure remote access approved by NCTA. Maintenance staff shall be<br>trained in the use of the ITSM.           |

## 2.7.9 Operational Requirements

| 503 | In the maintenance and operations phase, the Level II provider shall perform in-lane testing of<br>the WWDD and Notification system as part of all preventive maintenance events involving<br>lane closures by driving a test vehicle through the detection zone opposite the direction of<br>traffic, within the closure, and measure the detection and notification functionality according                                       |
|-----|---|
|     | to the functional requirements. The Contractor will be notified to perform corrective maintenance if the functional requirements are not met.   |
| 504 | NCTA will also review system and performance data and perform tests as deemed necessary.<br>NCTA may identify data that may indicate a failure to meet one (I) or more of the Functional<br>Requirements. As a result of NCTA's activities, NCTA may request that the Contractor<br>research and/or provide additional data, identify the extent of the problem or explanation<br>related to anomalies or trends identified by NCTA |
| 505 | Once notified of needed corrective maintenance, the Contractor shall respond within 72 hours with an acknowledgement and preliminary maintenance approach. The required repair time would then be agreed to by NCTA dependent on the severity and approach.   |

# Part IV Proposal Content

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## I. Content of Proposal

## I.I General

Proposals must be submitted in the format, including sections and heading descriptions, as instructed in this Part I, Section 3. To be considered, the Proposal must respond as instructed to all requirements in this Section of the RFP. Proposers must provide complete Technical and Price Proposals, including all Proposal sections, in accordance with the instructions. Omission of any section will render a Proposal non-responsive, and it will not be evaluated. Instructions on the content and form of the Technical and Price Proposals are included in this Section 3 Content of Proposal. Instructions on how to submit the Technical and Price Proposals are provided in Section 4 Submission of Proposal.

All cost data relating to this Price Proposal should be kept separate from and not included in the Technical Proposal Submittal. The Technical Proposal and Price Proposal shall be submitted in two (2) separately sealed Submittals.

## **I.2 Content of Technical Proposal**

Proposals shall be prepared simply and economically, providing a straightforward, concise description of the Proposer's ability to meet the requirements of the RFP. Portions of the Proposal that are excluded from these page limitations are shown below in **Table 1-3: Proposal Page Limitations**.

| Proposal Sections to be Completed<br>by a Proposer       | Page Count Limitations  |  |
|--|---|--|
| Cover Letter   | Up to 2 pages   |  |
| Executive Summary  | Up to 2 pages   |  |
| Section I: Firm and Team Qualifications                  | Limited to a combined total of 10   |  |
| Section 2: Past Project Performance                      | printed pages (excluding all table of<br>contents, list of tables, or list of<br>figures) and a font of 12 point.         |  |
| Section 3: Approach to Scope of Work<br>and Requirements | Initially limited to 20 pages with each<br>additional Scenario proposed adding<br>10 to the limit (excluding all table of |  |
| Section 4: Approach to Implementation and Integration    | contents, list of tables, list of figures),<br>and a font of 12 point. <i>Example: If all</i>                             |  |
| Section 5: Approach to Testing and<br>Maintenance        | <u>6</u> 7 Scenarios are included in the proposal, then there is a limit of <u>87</u> 0 pages.                            |  |
| Forms & Submittals                                       | No limitations  |  |
| Price Proposal   | No limitations  |  |

#### Table I-3: Proposal Page Limitations

**Table A** below outlines the combined total page number limitation for Proposal Sections 3-5 based on the number of Scenarios proposed.

| Number of Scenarios included in Proposal | Page Count Limitations for Proposal<br>Sections 3-5 |
|--|---|
| Proposal includes only 1 Scenario        | Limited to 20 pages max                             |
| Proposal includes 2 Scenarios            | Limited to 30 pages max                             |
| Proposal includes 3 Scenarios            | Limited to 40 pages max                             |
| Proposal includes 4 Scenarios            | Limited to 50 pages max                             |
| Proposal includes 5 Scenarios            | Limited to 60 pages max                             |
| Proposal includes 6 Scenarios            | Limited to 70 pages max                             |

#### Table A: Proposal Sections 3-5 Page Limitations

The Technical Proposal shall be submitted in the format shown below. The cover sheet for the completed Proposal, provided as **Exhibit D-1**, **Forms**, shall be included at the front of the Technical Proposal package submitted to NCTA, as directed in this Section 3.2 below. The Technical Proposal criteria below will be used to select Contractor(s). However, Requirements will be provided for each Task Order executed within the Contract and the selection of Contractors to perform work will be based on the Requirements for each Project in accordance with the best interest and sole discretion of NCTA.

Each lettered item designates a specific and separate section to be included in the Proposal:

#### A. Cover Letter

The Proposal shall include a cover letter signed by an officer of the firm with signature authority to enter into the proposed Contract with NCTA. This letter should be very brief and provide the corporate commitment that the Proposal meets the scope, schedule, and requirements of the RFP. The letter shall also include the name of the Project Principal and Contractor Project Manager.

#### **B. Executive Summary**

The executive summary shall be a brief overview, summarizing the Technical Proposal, and explaining how the Proposal being offered best addresses the evaluation criteria listed in this RFP. Describe your understanding of NCTA's needs and your approach in developing the integration, the coordination with NCTA and other contractors, and how the System's integrity will be protected and enhanced over the life of the Contract. Describe the amount of design and software development anticipated. Identify any Subcontractors and discuss their proposed roles on the Project.

#### C. Proposal Section I: Firm and Team Qualifications

Provide the following information regarding the Proposer's qualifications, including Subcontractors. Provide the information in the specific format provided below:

1. A brief history and description of the Proposer's organizational structure, including size, number of employees, capability, and area(s) of specialization.

- 2. A detailed discussion of the Proposer's qualifications and experience related to **Part III**, **Scope of Work and Requirements** required by this RFP, including Subcontractors' relevant experience in the following areas:
  - a. Completed, in the last five (5) calendar years, at least one (1) project working in Wrong-Way Driver Detection and Notification Systems in North America,
  - b. (OR) Developed, operated, and maintained, at least one (1) active ITS project in North America.
- 3. A recent Client List using **Exhibit D-3**, **Forms**, including a detailed description of the size, total dollar value and specific services provided for each client to which the Proposer provided similar services within the past five (5) calendar years. Specify the name, address, and telephone number of the individual responsible at the client organization for the supervision of such services.
- 4. The Proposer Company Reference Forms, Part I, using **Exhibit D-4, Forms**. Include in Proposal Forms and note in your response to this item that it is provided in Proposal Forms. The completed forms must include at least two (2) references to demonstrate that the Proposer, in combination with its Subcontractors, has successfully developed and delivered at least one WWDDNS project. The Proposer shall have successfully maintained the implemented projects for at least one (1) calendar year. NCTA may or may not conduct reference checks for information provided by Proposers.
- 5. A detailed statement providing the Proposer background information relative to the following:
  - a. Any criminal felony conviction, or conviction of any crime involving moral turpitude, including, but not limited to fraud, misappropriation, or deception, of the Proposer, its officers, or directors, or any of its employees or other personnel to provide Services on this Project, of which the Proposer has knowledge or a statement that it is aware of none;
  - b. Any criminal investigation for any offense involving moral turpitude, including, but not limited to fraud, misappropriation, falsification, or deception pending against the Proposer of which it has knowledge or a statement it is aware of none;
  - c. Any regulatory sanctions levied against the Proposer or any of its officers, directors or its professional employees expected to provide Services on this Project by any state or federal regulatory agencies within the past three years or a statement that there are none. As used herein, the term "regulatory sanctions" includes the revocation or suspension of any license or certification, the levying of any monetary penalties or fines, and the issuance of any written warnings;
  - d. Any regulatory investigations pending against the Proposer or any of its officers, directors or its professional employees expected to provide Services on this Project by any state or federal regulatory agencies of which the Proposer has knowledge or a statement that there are none; and

e. Any civil litigation, arbitration, proceeding, or judgments pending against the Proposer during the three (3) years preceding submission of its proposal herein or a statement that there are none.

The Proposer's responses to these requests shall be considered to be continuing representations, and Proposer's failure to notify NCTA within thirty (30) Calendar Days of any criminal litigation, investigation or proceeding involving the Proposer or its then current officers, directors or persons providing Services under this contract during its term shall constitute a material breach of contract. The provisions of this paragraph shall also apply to any Subcontractor utilized by Proposer to perform Services under this Agreement.

Provide the following information regarding the Proposer's Key Team qualifications, including Subcontractors. Please number and provide the information in the specific format provided below.

1. Using **Table 1-4** below, identify the following Key Team Personnel on this Project. For Key Personnel positions other than the Project Principal, provide a brief narrative explaining other project commitments the individual may have that would restrict their full availability to the Project and their expected working location. The Proposer shall identify a primary point of contact who will be the named person for the Project. The Contractor shall maintain a primary role throughout the Term of the Contract. Please refer to position descriptions in **Part III, Scope of Work and Requirements**, Section 2.2.2 Staffing and Key Personnel. Projects will be in the State of North Carolina.

| Project Principal:                         | Installation/Maintenance Manager: |
|--|-----------------------------------|
| All Scenarios                              | All Scenarios                     |
|  |                                   |
| Contractor Project Manager:                | Quality Assurance Manager:        |
| All Scenarios                              | All Scenarios                     |
|  |                                   |
| Technical Manager:                         | Test Manager:                     |
| Scenarios A, B, C, D, <del>E</del> , and G | Scenarios A, B, C, D, €, and G    |
|  |                                   |
|  |                                   |

 Table I-4: Key Team Personnel Roles and Commitments

2. Describe the experience of each Key Team Member and how it relates specifically to this Project. The resources will be available throughout the Term of the Agreement. Any

changes in Key Personnel shall be presented in writing to NCTA for review and approval prior to making such change.

- 3. Provide resumes (not to exceed one (1) page per team member), for each of the Key Project Team Members. (Include in Proposal Forms and note in your response to this item that it has been provided in Proposal Forms).
- 4. Proposers must complete at least one (1) Key Team References form (Reference Form Part 2) provided in **Exhibit D-5, Forms,** for each Key Team member.
- 5. Complete the List of Subcontractors Form from Exhibit D-2, Forms, which includes Subcontractor name, address, Work to be performed, and expected percentage of total Work value to be performed. Also complete the RS-2 Form for each Subcontractor as further instructed in Part I, Administrative, Section 2.21.4 Listing of Subconsultants or Subcontractors. Include both the completed list of Subcontractors and the RS-2 Form in Proposal Forms and note in your response to this item that they have been provided in Proposal Forms.

#### D. Proposal Section 2: Past Project Performance

1. Provide actual examples of how each of the Functional Requirements were met or exceeded on similar projects and how the performance was measured. Identify if any Services provided will be performed outside the United States.

#### E. Proposal Section 3: Approach to Scope of Work and Requirements

Provide responses to the items below regarding the Proposer's approach to the Scope of Work and Requirements. Please number responses and provide the information in the specific format provided below.

- 1. Discuss Proposer's technical approach to satisfying all the Requirements for the WWDDNS with focus on a commercially available system that has sufficient redundancy and reliability to meet the Requirements. With the aid of drawings, describe how the Proposer's solution will meet the availability Requirements. Drawings shall be provided as an Appendix and not counted towards the Technical Proposal page limitation.
- 2. Discuss the Proposer's technical approach to providing optimal performance for Detection, Deterrence, and Notification while meeting the Functional Requirements as specified in **Part III, Scope of Work and Requirements**. Provide typical Proposers solution drawings for equipment layout. Drawings shall be provided as an Appendix and not counted towards the Technical Proposal page limitation. The Contractor shall provide specific drawings for each Project as outlined in each Scope of Work.
- 3. Specifically address how the Proposer's WWDDN solution and architecture will accommodate changes in technology given anticipated growth, and technology advances during the Contract Term. This item to determine the Innovative Technology score.
- 4. Identify all third-party software and vendor with version numbers including operating system, database, security Software, monitoring tools and software for the Proposer's solution. Also identify other Proposer projects where such software is deployed and in

operations collecting revenue. The Proposer shall also describe any planned changes to third-party software planned during this Contract.

- 5. Discuss the Proposer's Design approach and tools available for ensuring and confirming:
  - a. That there are no missing Wrong-Way driving events and associated meta data and all vehicles are accurately captured and reported,
  - b. Receipt of all detection events at the TMC,
  - c. Minimal false alerts due to weather, landscaping, or other causes,
  - d. That all errors, exceptions, missing, and failed notifications are identified and reported as further set forth in **Part III, Scope of Work and Requirements**.

#### F. Proposal Section 4: Approach to Implementation and Integration

Provide responses to the items below regarding the Proposer's approach to Implementation and Integration.

- I. Discuss the installation process and how Proposer intends to meet the installation requirements of **Part III, Scope of Work and Requirements**
- 2. The Proposer shall describe the Quality Control Plan and the Firm's procedures and techniques for Quality Control and Quality Assurance in all areas, including development of the System Requirements, functional requirements, and design documentation; hardware procurement; software development; implementation and testing; commissioning; Maintenance and Operations; and ticket tracking. Each Proposer shall specifically address Quality Control (how quality is being ensured) and Quality Assurance (assurance that Quality Control is effectively being performed). NCTA desires that the Proposer include existing company Quality Control Plans and only tailor as required for this Contract.
- 3. Specifically address the Proposer's approach to coordination of the Design with the Constructor given that the construction of the project is currently underway. Provide examples of similar experience and lessons learned to enhance communication and coordination that will be applied to the benefit of NCTA.
- 4. The Proposer shall specifically address what elements, such as processes, procedures, communications, meetings, issues tracking, and Quality Control will be in place during the installation process to ensure timely communication and resolution of problems.

#### G. Proposal Section 5: Approach to Testing, Training, and Maintenance

Provide responses to the items below regarding the Proposer's approach to testing and maintenance. Please number and provide the information in the specific format provided below.

- 1. Discuss Proposer's approach to testing and commissioning, as described in **Part III**, **Scope of Work and Requirements**. Please address:
  - a. Proposer's overall test plan approach
  - b. Approach to Onsite Installation Testing (OIT)
  - c. Approach to System Acceptance Test (SAT) and commissioning.

- 2. Discuss the Proposer's approach to Maintenance that will meet or exceed all Maintenance Services and warranty requirements as specified in **Part III, Scope of Work and Requirements**.
- 3. Discuss the Plan for coordination with NCTA and Proposer's Operations responsibilities.
- 4. Discuss the Proposer's training approach for the Maintenance staff and for NCTA staff to meet all Requirements.
- 5. Discuss the Proposers approach to total life cycle, how product pricing is developed evaluated and updated and any changes to the pricing in the future for implementation and operations and maintenance of the project. List any assumptions in pricing in this section.
- 6. Discuss the Proposers approach to how its solution provides a low total life cycle costs including minimal preventative and corrective maintenance while meeting all Requirements.

#### H. Forms and Submittals

Proposers shall provide all Proposal forms required to be submitted as part of the RFP in the Forms Section of the Proposal, unless otherwise specifically directed. Proposers shall submit properly completed forms that have been provided in **Exhibit D**, **Forms**. Please refer to **Table I-5** below for a Forms and Submittals checklist. The checklist identifies the location of the form or the Submittal requirement in the RFP and where the form or Submittal is to be included in the Proposal.

Proposers shall not modify any of the forms unless specifically instructed by NCTA to do so. Completion of forms will be checked during the initial Pass/Fail screening of the submitted Proposals. Proposals not adhering to this requirement may be considered as non-compliant.

| Form<br># | Form/Submittal Name                  | Location in<br>RFP | Location of Form/Submittal<br>in Proposal                    |
|-----------|--------------------------------------|--------------------|--|
|           | Forms to b                           | e Submitted        |  |
| D-I       | Proposal Cover Sheet                 | Exhibit D-I        | Technical Proposal Envelope<br>with Original of Proposal     |
| D-2       | List of Subcontractors and RS-2 Form | Exhibit D-2        | Technical Proposal Forms                                     |
| D-3       | Recent Client List                   | Exhibit D-3        | Technical Proposal Forms                                     |
| D-4       | Reference Forms Part I               | Exhibit D-4        | Technical Proposal Forms                                     |
| D-5       | Reference Forms Part 2               | Exhibit D-5        | Technical Proposal Forms                                     |
| D-6       | Price Proposal Form                  | Exhibit D-6        | Price Proposal Envelope                                      |
| D-7       | Proposer Questions Form              | Exhibit D-7        | N/A: To be used for submission of Proposer questions to NCTA |
| D-8       | Non-Collusion Forms                  | Exhibit D-8        | Technical Proposal Forms                                     |
| D-9       | Surety Commitment Letter             | Exhibit D-9        | Technical Proposal Forms                                     |

| Form<br>#                 | Form/Submittal Name                     | Location in<br>RFP | Location of Form/Submittal<br>in Proposal |
|---------------------------|---|--------------------|---|
| D-10                      | Acknowledgment of Receipt of<br>Addenda | Exhibit D-10       | Technical Proposal Forms                  |
| Other Proposal Submittals |   |                    |   |
| N/A                       | Resumes                                 | See Part I-3.2     | Technical Proposal Forms                  |
| N/A                       | Contractor Organization Chart           | See Part I-3.2     | Technical Proposal Forms                  |

Table 1-5: Forms and Submittal Checklist

## 2. Submission of Proposal

All Technical and Price Proposals shall be submitted in sealed envelopes or boxes, bearing on the outside the following information, and delivered to the address provided on the front page of this RFP:

#### **Technical or Price Proposal:**

#### WRONG-WAY DRIVER DETECTION AND NOTIFICATION SYSTEMS

Submitted By: PROPOSER'S NAME PROPOSER'S ADDRESS CITY, STATE, ZIP CODE PROPOSER'S PHONE NUMBER

## 2.1 Submission of Technical Proposal

- 1. Form of Technical Proposal. Submit Technical Proposal, with all Scenarios being proposed, on a USB flash drive.
  - a. On a separate USB flash drive, Proposers shall also submit a redacted searchable electronic copy of the Technical Proposal (Proprietary and Confidential Information Excluded). Any proprietary information identified as confidential and proprietary in accordance with G.S. § 132-1.2 and the Terms and Conditions of this RFP, should be excluded.
  - b. The electronic copy shall be provided in a <u>searchable (NOT SCANNED)</u>\*.pdf format. All Sections listed in *Table 1-3* (Cover Letter, Executive Summary, Proposal Sections 1 5, and Appendices) shall be a separate \*.pdf file. Any Proposal Exhibits or information prepared either as graphics or with other programs such as scheduling programs shall be viewable in a \*.pdf file without any other software required for Proposal review, with the exception of the Price Proposal, which shall also be provided in Excel.
- Page Presentation. Technical Proposal text shall be single-spaced, a minimum of 12-point Times New Roman font, printed on both sides of the page. Each page header and/or footer should include the Proposer's name and Technical Proposal section, along with page numbers and date of the Proposal. NCTA will not be responsible for reviewing portions of proposals with illegible

text. Headers and footers may be in different size font from that specified but no less than 9-point font.

- 3. Number of Copies. One (1) USB flash drive containing all portions of the Technical Proposal shall be provided and one (1) USB flash drive containing a redacted copy of the Technical Proposal shall be provided for a total of two (2) USB flash drives to be submitted.
- 4. Easy to Read and Cross-Reference. The Proposers need not duplicate or quote in detail from attached reference materials provided that a summary is included in the technical section and a clear and easy means to locate references to the information is provided. The reference shall include the document name, page number(s) in the document, and paragraph numbers(s) or line number(s) where the referenced information is located. Underlining, boxing, highlighting, etc. that will call attention to referenced information in a manner that will assist in locating it is recommended.
- 5. Writing Style. Proposal Documentation should provide an example of what project design documentation will look like. NCTA prefers economy of words, direct writing, active voice, and minimum of marketing superlatives. NCTA also prefers facts and written evidence with references or data that supports Proposers statements or assertions in the document.
- 6. Trade Secrets and Confidential Information. NCTA is a public agency of the State of North Carolina, subject to the North Carolina Public Records Act, Chapter 132 of the North Carolina General Statutes. NCTA may maintain confidential information, including any designated as trade secrets or otherwise proprietary, only in accordance applicable Federal and State laws or regulations. NCTA, therefore, expects that Proposers will keep confidential information designations to a minimum.

A Proposer, having formed a good faith opinion, upon consultation with legal or other knowledgeable advisors that information submitted may contain a trade secret as defined in G.S. § 66-152 or other information exempted from the North Carolina Public Records Act pursuant to G.S. § 132-1.2, may so designate appropriate portions of its Proposal by marking the top and bottom of pages containing confidential information in boldface type "CONFIDENTIAL." NCTA, however, may serve only as a custodian of information a Proposer deems confidential. NCTA shall not act as an arbiter or defender of any claims related to assertions of confidential information. If a request is made for disclosure of information submitted, or an action is brought to compel NCTA to disclose information marked confidential pursuant to G.S. § 132-1 et seq. NCTA will notify the affected Proposer of such request or action.

In submitting a Proposal in response to this RFP, a Proposer agrees to: (i) defend its assertions of confidentiality by instituting appropriate legal proceedings, at its own expense and through its counsel, or intervening in an action brought against NCTA to compel disclosure, to defend its assertions of confidentiality; and (ii) hold the State and NCTA, and any officials or employees thereof harmless from any and all damages, costs, and attorney's fees awarded against the State and NCTA arising out of any such actions. Nothing in this section shall preclude the State or NCTA from participating in the defense of such actions, at its option and expense through its counsel. NCTA shall have no liability to a Proposer with respect to the disclosure of any information, including confidential information, subject to an order by a court of competent jurisdiction pursuant to G.S. § 132-9 or any other applicable law.

In accordance with G.S. § 136-28.5, bids and documents submitted in response to an advertisement, or this RFP shall not be public record until the NCTA issues a decision to award or not to award the Contract.

## 2.2 Price Proposal Content and Format

- 1. Separate and Sealed: the copies of the Price Proposal shall be submitted in a sealed envelope, separate from the Technical Proposal.
- Price Proposals shall be submitted using the Price Proposal Workbook included as Exhibit D-6, Forms. The Price Proposal submitted in Exhibit D-6 shall be based on Unit Prices for the Scope of Work to meet all Requirements. The Prices shall be the maximum Price for the Term of the Agreement unless NCTA and the Contractor agree in writing due to a material change in Scope of Work.
- 3. Proposers shall complete the Price Proposal Workbook in accordance with **Exhibit C, Price Proposal Instructions**.
- 4. Two (2) USB flash drives containing the Price Proposal in electronic format shall be provided. The file format for the electronic copy of the Price Proposal shall be Microsoft Excel and PDF. The USB flash drives containing the Price Proposal shall be clearly labeled with the same nomenclature identified for the outside of the sealed Price Proposal envelope.
- Proposers shall not include any assumptions in their Price Proposals. If the Proposer includes assumptions in its Price Proposal, NCTA may reject the Proposal. Assumptions should be provided in the manner set forth in this **Part IV Proposals Content**, Section 1.2 Content of Technical Proposal (Proposal Section 5).
- 6. Any costs for Work that is not provided in the Price Proposal will be assumed as no charge to NCTA.

## Part V

## **Terms and Conditions**

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## I. Contract Terms and Conditions

## **I.I Payment Terms and Conditions**

- Payment terms are net thirty (30) Calendar Days after receipt of a correct invoice. NCTA is
  responsible for all payments under the Contract. A "correct" invoice is one that contains an
  accurate description of the amounts due, is in the Approved format, has no errors, includes all
  required supporting information including payment Approvals, and meets all other Requirements
  for invoicing set forth in Part III, Scope of Work and Requirements.
- 2. The Contractor shall invoice NCTA for the Implementation Phase based on milestone payments set forth in **Exhibit B, Payment Schedule for each Project**. Exhibit B is provided for references and the Contractor shall not completed Exhibit B in its Price Proposal.
- 3. The Contractor shall invoice NCTA in the Operations and Maintenance Phase in accordance with the amounts set forth in the Approved Contractor Price Proposal Exhibit D-<u>67</u>, Forms for monthly Operations and Maintenance payments. Adjustments to these payments may be made for Contractor performance below required Functional Requirements as further set forth in Part III, Scope of Work and Requirements.
- 4. NCTA may exercise any and all rights of set off as permitted in the Set Off Debt Collection Act (Chapter 105A-1 et. seq. of the N.C. General Statutes) and applicable Administrative Rules. Upon Contractor's written request of not less than thirty (30) Calendar Days and Approval by NCTA, NCTA may:
  - a. Forward the Contractor's payment check(s) or other mutually acceptable means directly to any person or entity designated by the Contractor, or
  - b. Include any person or entity designated in writing by Contractor as a joint payee on the Contractor's payment check(s); however,
  - c. In no event shall such Approval and action obligate NCTA to anyone other than the Contractor and the Contractor shall remain responsible for fulfillment of all Contract obligations.

## I.2 Contract Term

The term of the Contract will commence on the upon Notice of Award for each Project with a base term followed by an optional Operations and Maintenance Phase extension(s). The phases are further described as follows:

- 1. Implementation Phase The Implementation Phase shall begin upon issuance of Implementation Phase Notice of Award.
- 2. Installation and System Acceptance Phase The Installation and System Acceptance Phase shall begin after completion of the Onsite Installation Test and shall continue until System Acceptance is complete and deliverables are received and approved.

- 3. Operations and Maintenance Phase The Operations and Maintenance Phase shall begin upon System Acceptance and shall continue through the end of the base Contract Term for a period of up to five (5) years.
- 4. Options to Extend Maintenance The Optional Extension Phase includes two (2) three (3)-year optional Maintenance extensions to be executed at the sole discretion of NCTA, with the first extension commencing upon the end of the base Contract Term.

For each Project, the Contractor shall be issued a Notice to Proceed for the Implementation Phase. A second Notice to Proceed will be issued for the Installation and Acceptance Phase and Operations and Maintenance Phase <u>Any work including for and not limited Software, equipment and Services shall be conducted by the Contractor prior to the Installation and Acceptance Phase will be done solely by the Contractor. Any work regarding equipment order planning, maintenance plans, test plans including the Master Test Plan and all documentation shall be completed in the Implementation Phase. The Contractor shall demonstrate in its Project Schedule how it will conduct all work required to prepare for the Installation and Acceptance Phase and Operations and Maintenance Phase during the Implementation Phase.</u>

Any additional facilities or roadways considered as additions to **Part III, Scope of Work and Requirements** will not change the overall duration of the base term and options to extend, as described above. NCTA shall update the Effective Date after the Contract has been fully executed by the Contractor and by NCTA and all Approvals required by NCTA contracting procedures have been obtained.

## I.3 Damages

#### I.3.1 Liquidated Damages

1. Liquidated damages per Calendar Day shall be assessed for the Contractor's failure to successfully complete the System Acceptance Test described in Part III, Scope of Work and Requirements by the milestone date set forth in Exhibit A, Project Implementation Schedule each Project, subject to the limits set forth herein. The total and cumulative amount assessed by NCTA for liquidated damages shall not exceed the grand total cost for the Implementation Phase for each road as identified in Exhibit D-6 Price Proposal, Tab one (I) Project Summary, line six (6) Total Implementation Phase price, or as modified by any Change Orders. The liquidated damages amount will be based on the Task Order estimates and the table below:

|                  | 8 /                                      |
|------------------|--|
| Task Order Value | Liquidated Damages (per<br>calendar day) |
| \$0 - \$100K     | \$100.00                                 |
| \$100K - \$200K  | \$250.00                                 |
| \$200K - \$300K  | \$500.00                                 |
| \$300K – \$500K  | \$600.00                                 |
| \$500K - \$1M    | \$700.00                                 |
| \$IM - \$2M      | \$850.00                                 |

Table 1-6: Liquidated Damages by Task Order Value

| \$2M + | \$1000.00 |
|--------|-----------|

Liquidated damages may be assessed in the form of a Lane Rental Fee for unauthorized lane closures during the Implementation Phase that require general purpose lane closures. Unauthorized lane closures include closures which are outside of closures allowed in the Approved Installation Plan for each Project.

The Lane Rental Fee shall be assessed as \$500 per 15-minute period, per travel lane. The fee will accrue at the start of each 15-minute period (e.g., a 16-minute lane closure will accrue a \$1,000 lane rental fee). The lane rental fee will be deducted from Contractor's invoice or any other monies due to the Contractor for Work performed. The deduction will be based on the applicable rate for any and all closures, whether Work is performed or not. The fee will not be assessed for delays due to conditions beyond the control and fault of the Contractor, including force majeure events.

- 2. Payment adjustments will be assessed not as a penalty, but as liquidated damages for not meeting the Operations and Maintenance Performance Standard Requirements set forth in **Part III**, **Scope of Work and Requirements**, Section 2,3 System Design and Functional Requirements for the WWDDNS and Monthly Fee Adjustments. If in the performance of the Services the Contractor does not meet or exceed the Functional Requirements identified therein, NCTA shall reduce the amount it would otherwise pay to the Contractor for such Services subject to the reduction amounts and limits set forth in therein.
- 3. NCTA may recover any and all liquidated damages by deducting the amount thereof from any monies due or that may become due the Contractor(s), notwithstanding any liens, Notices of liens or actions of Subcontractors, and if said monies are insufficient to cover said damages, then the Contractor or the Surety shall promptly pay any remaining amounts due on demand.
- 4. In the event that liquidated damages are disallowed for any reason whatsoever, NCTA shall be entitled its actual damages including any and all consequential or incidental damages.
- 5. Nothing herein contained shall be construed as limiting NCTA's rights to recover from the Contractor any and all other amounts due or that may become due to NCTA, or any and all costs and expenses sustained by NCTA for improper performance hereunder, or for breach or breaches in any other respect including, but not limited to, defective workmanship or materials.

#### I.3.3 Risk of Loss

The Contractor assumes the following distinct and several risks without limitation, whether they arise from acts or omissions (whether negligent or not) of the Contractor or of any of its Subcontractors and suppliers, excepting those risks which arise from negligent acts or omissions of NCTA:

 The risk of loss or damage to any property of NCTA arising out of or alleged to have arisen out of or in connection with the performance of Services pursuant to this Agreement; the risk of loss or damage to any property of the Contractor's agents, employees, and Subcontractors arising out of, or alleged to have arisen out of, or in connection with the performance of Services pursuant to this Agreement. 2. The risk of loss for all equipment until installed by the Contractor, subject to NCTA's Approval of the installed equipment. Title and ownership of the equipment (other than the Software), and the right to possess and use the Software pursuant to the rights and licenses granted to NCTA under this Agreement, shall pass to NCTA upon delivery, subject, in the case of such title and ownership, to the equipment conforming to the Requirements set forth in **Part III, Scope of Work and Requirements**.

## **I.4** Audits and Financial Reporting

#### I.4.1 Annual Audited Financial Statements

The Contractor shall submit on an annual basis its current audited financial report, financial statements, and any associated notes for the term of the Contract.

#### **1.4.2** Audit and Examination of Records

- I. Definition of Records
  - a. Contract Records shall include, but not be limited to, all information, communications and data, whether in writing or stored on a computer, computer disks, microfilm, writings, working papers, drafts, computer printouts, field notes, charts or any other data compilations, books of account, photographs, videotapes and audiotapes supporting documents, any other papers or preserved data in whatever form, related to the Contract or the Contractor's performance of the Contract determined necessary or desirable by NCTA for any purpose.
  - b. Proposal Records shall include, but not be limited to, any material relating to the determination or application of equipment rates, home and field overhead rates, related time schedules, labor rates, efficiency or productivity factors, arithmetic extensions, quotations from Subcontractors, or material suppliers, profit contingencies and any manuals standard in the industry that may be used by the Contractor in determining a price.
- 2. Pursuant to G.S. 147-64.7, NCTA, the State Auditor, appropriate Federal officials, and their respective authorized employees or Agents are authorized to examine all books, records, and accounts of the Contractor insofar as they relate to transactions with any department, board, officer, commission, institution, or other authority of the State of North Carolina pursuant to the performance of this Contract or to costs charged to this Contract. Additional audit or reporting Requirements may be required by any authority, if in NCTA's opinion, such requirement is imposed by Federal or State law or regulation. The State Auditor and internal auditors of NCTA may audit the records of the Contractor during and after the term of the Contract to verify accounts and data affecting fees and performance.
- 3. NCTA reserves and is granted the right (at any time and from time to time, for any reason whatsoever) to review, audit, copy, examine, and investigate in any manner, any Contract Records (as herein defined) or Proposal Records (as hereinafter defined) of the Contractor or any Subcontractor. By submitting a response to the RFP, Contractor or any Subcontractor submits to and agrees to comply with the provisions of this section.

- 4. If NCTA requests access to or review of any Contract Documents or Proposal Records and Contractor refuses such access or review, Contractor shall be in default under its Contract with NCTA, and such refusal shall, without any other or additional actions or omissions, constitute grounds for suspension, termination, or disqualification of Contractor. These provisions shall not be limited in any manner by the existence of any Contractor claims or pending litigation relating to the Contract. Disqualification or suspension of the Contractor for failure to comply with this section shall also preclude the Contractor from acting in the future as a Subcontractor of another contractor doing work for NCTA during the period of disqualification or suspension. Disqualification shall mean the Contractor is not eligible for and shall be precluded from doing future work for NCTA until reinstated by NCTA.
- 5. Final Audit for Project Closeout: The Contractor shall permit NCTA, at NCTA's option, to perform or have performed an audit of the records of the Contractor and any or all Subcontractors to support the compensation paid the Contractor. The audit will be performed as soon as practical after completion and Acceptance of the contracted Services. In the event funds paid to the Contractor under the Contract are subsequently determined to have been inadvertently paid by NCTA because of accounting errors or charges not in conformity with the Contract, the Contractor agrees that such amounts are due to NCTA upon demand. Final payment to the Contractor shall be adjusted for audit results.
- 6. Contractor shall preserve all Proposal Records and Contract Records for the entire term of the Contract and for a period of three (3) years after the later of: (i) Final Acceptance of the Project by NCTA, (ii) until all claims (if any) regarding the Contract are resolved, or (iii) expiration of the Proposal Records and Contract Records' status as public records.

## **I.5** Contractor Cooperation

- 1. During the course of this Agreement, NCTA may undertake or award other agreements for additional work, including but not limited to separate agreements with different contractors, including the civil construction work and Constructor related to **Part III, Scope of Work and Requirements**, including but not limited to the roadway, gantries and shelters and associated Work. It is critical that close coordination with interfacing contractors occurs throughout the term of this Agreement. Contractor shall fully cooperate with NCTA and the parties to all other contracts and carefully integrate and schedule its own work with said parties.
- 2. NCTA will expect all contractors to comply with all technical specifications, special provisions and other terms and conditions applicable to the Contract(s) at all times during the performance of the Contract(s). In the event of a dispute between contractors, clarifications may be sought from NCTA; provided Contract Terms, conditions or obligations shall remain in effect, excepting in instances wherein a Change Order or other Contract modification is duly executed in writing in accordance with this **Part IV**, **Terms and Conditions**; however contractors shall engage in all efforts to resolve disputes prior to participation of NCTA and further, such participation by NCTA does not imply or represent a NCTA responsibility for resolution or payment of claims that arise out of a dispute between two contractors.
- 3. Interface Control Document Development and Ongoing Cooperation Requirements

- a. The Contractor shall fully cooperate with NCTA and its designated contractor(s) as necessary to develop interface control documents (ICDs) as set forth in **Part III**, **Scope of Work and Requirements**. The ICDs shall specify all specifications, parameters, System Requirements, programming interfaces and all other elements to effectively and completely interface the WWDDNS components being provided by the various interfacing contractors. The Contractor shall be responsible for its respective roles and responsibilities as set forth in **Part III**, **Scope of Work and Requirements**.
- b. In the event that the elements comprising the WWDDNS do not properly interface with each other, and the Contractor's and the interfacing contractors' collective efforts to correct same are untimely or unsuccessful, or the interfacing contractors fail to cooperate with the other NCTA designated and/or interfacing contractor(s) to the satisfaction of NCTA and as determined at NCTA's sole discretion then, in addition to NCTA's other available remedies, NCTA shall have the right to, in whole or in part, withhold and/or require a refund of payments to the Contractor and/or the interfacing contractors involved in developing the ICD.
- 4. Additional Coordination and Cooperation Requirements
  - a. It is anticipated that work by one or more contractors of NCTA, may be in progress adjacent to or within the limits of this Project during progress of the Work on this Contract. The Contractor shall work closely with NCTA and any other contractors who will be working for NCTA for the purpose of coordinating any activity which may affect both contractors. Examples of this Work include but are not limited to installation of toll equipment, equipment testing, power and conduit installation and Maintenance and protection of traffic.
  - b. Should problems in coordination with other contractors occur the Contractor shall make NCTA aware of these problems immediately and shall take steps to address the problems and mitigate any delays or additional costs. Contractor shall not commit or permit any act that will interfere with the performance of Work by any other contractor or by NCTA.
  - c. Contractor shall cooperate with all other contractors or forces performing construction or work of any other nature within or adjacent to the limits of the Work specified in order to avoid any delay or hindrance to the other contractors or forces. NTCA reserves the right to perform other or additional Work at or near the site (including material sources) at any time, by the use of other forces.
  - d. Each contractor shall be responsible to the other for all damage to Work to persons or property caused to the other by their Operations, and for loss caused the other due to unnecessary delays or failure to finish the Work within the time specified for completion. Modifications to the Approved Project Schedule and Time Extensions will be subject to the Time Extensions and Schedule Changes provisions set forth in **Part IV, Terms and Conditions**, Section 2.5.
- 5. Contractor Responsibility for Design

Upon Approval of the Design, including civil infrastructure design by the Contractor, Contractor shall assume responsibility for the Design to the extent that if the civil work is installed as designed and the WWDDNS does not meet the Functional Requirements of this Contract, the Contractor shall be responsible for the costs of redesign, civil rework and additional equipment costs and any other costs associated with the sub-standard performance.

#### **I.6 Warranties**

#### **1.6.1** System Warranty during Maintenance Phase

A full System warranty shall be provided by the Contractor on all System equipment, hardware and software for the term of the Maintenance Phase and any extensions thereof. As a result, during the Maintenance Phase, NCTA shall not pay any additional charges above the prices set forth in the Contractor's agreed-to Price Proposal for Maintenance Phase Work, other than Work related to agreed-to Force Majeure events or agreed-to out of scope work requested by NCTA, pursuant to **Part IV**, **Terms and Conditions**, Section 2.3 Change Orders. Notwithstanding the foregoing, in the period after installation and prior to Acceptance, all Maintenance and Support Work shall also be at Contractor's sole expense. Such Work shall be at no charge to NCTA and shall include replacement, whether pre-or post-Acceptance, on any unit of equipment, Hardware or Software, or part or component thereof, which NCTA deems defective or insufficient, or which NCTA deems to have failed to comply with **Part III**, **Scope of Work and Requirements**. All transportation, labor and fees associated with restocking cancelled or returned orders shall also be the responsibility of the Contractor. All defective equipment replaced by the Contractor will become the property of the Contractor.

The provisions of this Section 1.6.1 shall survive the expiration, cancellation, or termination of this Agreement.

#### **I.6.2 Software Warranties**

- 1. The software needed to operate the System shall be as set forth in Part III, Scope of Work and Requirements. NCTA's Acceptance of the software shall occur in accordance with the provisions of Part III, Scope of Work and Requirements. The Contractor warrants that, upon NCTA's Acceptance of and for the Contract Term, including any extensions thereof, the software and each module or component and function thereof shall:
  - a. be free from defects in materials and workmanship under normal use;
  - b. remain in good working order, be free from viruses; trap doors; disabling devices; Trojan horses; disabling codes; back doors; time bombs; drop-dead devices; worms, and any other type of malicious or damaging code or other technology or means which has the ability to interfere with the use of the System by NCTA or its designees, or permit access to NCTA's computing systems without its knowledge or contrary to its system connectivity policies or procedures;
  - c. not interfere with toll collection;
  - d. operate and function fully, properly and in conformity with the warranties in this Agreement, and

- e. meet the Requirements set forth in sub-paragraphs 2 through 14 of this Section 1.6.2.
- 2. The Contractor represents and warrants that upon NCTA's Acceptance of and for the Contract Term, including any extensions, the Software will:
  - a. operate fully and correctly in the operating environment identified in **Part III, Scope of Work and Requirements**, including by means of the full and correct performance of the software, and all updates, enhancements, or new releases of the software, on or in connection with the equipment, any epdates, enhancements, or new releases to such equipment, and any other software used by or in connection with any such equipment;
  - b. be fully compatible and interface completely and effectively with the equipment, including other software programs provided to NCTA hereunder, such that the other software and equipment combined will perform and continuously attain the standards identified in **Part III, Scope of Work and Requirements**, and
  - c. accurately direct the operation of the System, as required by **Part III, Scope of Work and Requirements**, and the descriptions, specifications and Documentation set forth therein and herein.
- 3. During the term of the Contract, including any extensions, the Contractor shall provide Services to maintain the Software provided hereunder in good working order, keeping it free from defects such that the System shall perform in accordance with this Agreement, the **Part III, Scope of Work and Requirements**, and the warranties set forth herein.
- 4. The Contractor shall provide technical support and shall remedy any failure, malfunction, defect or non-conformity in software, in accordance with Part III, Scope of Work and Requirements, but in any event not later than the deadline(s) in Part III, Scope of Work and Requirements for Maintenance Coverage and Repair Times.
- 5. The Contractor shall provide NCTA the most current release of all software available on the date of delivery to maintain optimum performance pursuant to this Agreement.
- 6. The Contractor shall promptly provide Notice to NCTA in writing of any defects or malfunctions in the software provided hereunder, regardless of the source of information. The Contractor shall promptly correct all defects or malfunctions in the software or documentation discovered and shall promptly provide NCTA with corrected copies of same, without additional charge. If software can only be corrected in conjunction with additional or revised hardware, the Contractor shall provide such hardware to NCTA, and the cost of such hardware shall be borne solely by the Contractor.
- 7. No updates or enhancements shall adversely affect the performance of the System, in whole or in part, or result in any failure to meet any Requirements of **Part III, Scope of Work and Requirements**.
- 8. The Contractor shall ensure continued satisfactory performance by the current operating System of the Software in accordance with all provisions of this Section I.6.2.
- 9. With regard to software, the Contractor shall provide software services in accordance with **Part III, Scope of Work and Requirements**.
- 10. The Contractor shall obtain Maintenance agreements for third-party software in accordance with

Section 1.6.3 Third-Party Warranties. The Contractor shall secure such Maintenance agreements for the same duration and upon the same terms and conditions as the Maintenance provisions between the Contractor and NCTA. All third-party contracts and licenses shall be assignable to NCTA.

- 11. In the event that the Software does not satisfy the conditions of performance set forth in Part III, Scope of Work and Requirements, the Contractor is obligated to promptly repair or replace such Software at the Contractor's sole cost and expense or, if expressly agreed to in writing by NCTA, provide different equipment or software, and perform Services required to attain the Functional Requirements set forth in Part III, Scope of Work and Requirements.
- 12. In the event of any defect in the media upon which any tangible portions of the software are provided, the Contractor shall provide NCTA with a new copy of the Software.
- 13. Without releasing the Contractor from its obligations for warranty (during an applicable warranty period), support or Maintenance of the software, NCTA shall have the right to use and maintain versions of the software provided by the Contractor which are one or more levels behind the most current version of such software and to refuse to install any Updates or enhancements if, in NCTA's discretion, installation of such Updates or enhancements would interfere with its Operations. The Contractor shall not, however, be responsible or liable for the effect of any error or defect in the version of the software then in use by NCTA that occurs after the Contractor has both (i) offered, by written Notice to NCTA, a suitable correction (by way of update, enhancement or otherwise) of such error or defect and (ii) provided NCTA a reasonable opportunity to implement such existing correction, provided that the Contractor establishes that neither the implementation nor the use of such correction would limit, interfere with, adversely affect, or materially alter the Interoperability, functionality or quality of the System.
- 14. All provisions of this Section 1.6.2 referring or relating to obligations to be performed pursuant to an applicable warranty period that extends beyond the term hereof, shall survive the expiration, cancellation, or termination of this Agreement.

#### **1.6.3 Third-Party Warranties**

In addition to the foregoing warranties, the Contractor shall assign to NCTA, and NCTA shall have the benefit of, any and all Subcontractors' and suppliers' warranties and representations with respect to the System and Services provided hereunder. The Contractor's agreements with Subcontractors, suppliers and any other third parties shall require that such parties (a) consent to the assignment of such warranties and representations to NCTA, (b) agree to the enforcement of such warranties and representations by NCTA in its own name, and (c) furnish to NCTA, the warranties set forth herein. At NCTA's request, the Contractor shall provide supporting documentation which confirms that these warranties are enforceable in NCTA's name.

#### **1.6.4** Services Warranties

The Contractor warrants that all Services shall be performed in a high-quality, professional manner by qualified and skilled personnel in compliance with NCTA's Requirements as set forth in **Part III, Scope of Work and Requirements**. In the event NCTA determines that any Services do not conform to the foregoing warranty, NCTA shall be entitled to elect one of the following remedies: (i) reperformance of the Services by the Contractor until NCTA deems them to be in conformity with the warranty in this

Section I.6.4, at no charge to NCTA; (ii) refund from the Contractor for all fees paid in connection with the Services, which NCTA deems were not as warranted, subject to the provisions of **Part IV, Terms and Conditions**, Section I.3.1 Liquidated Damages, such that the Contractor is not required to refund fees for non-provision of Services for which Liquidated Damages have been assessed, (iii) reimbursement by the Contractor for NCTA's costs and expenses incurred in having the Services re-performed by NCTA or someone other than the Contractor. Notwithstanding the foregoing, nothing in this Section I.6.4 shall be construed to limit NCTA's rights pursuant to **Part IV, Terms and Conditions**, Section 2.6.2 Termination for Cause.

#### I.6.5 Data Accuracy

The Contractor acknowledges and understands that the data and/or information it collects, processes and/or provides to NCTA will be relied upon by to NCTA and other persons or entities that are now or will in the future be under Agreement with NCTA. Should information derived and provided by Contractor be inaccurate and cause NCTA to incur damages or additional expenses, NCTA shall notify Contractor and the Contractor shall immediately place any applicable insurance carrier on Notice of a potential claim. This provision shall survive termination of this Agreement and the Contractor agrees to waive any applicable limitation periods consistent with enforcement of this provision.

#### **1.6.6 Additional Warranties**

The Contractor warrants the following:

- I. All guarantees and warranties made herein are fully enforceable by NCTA acting in its own name.
- 2. The equipment and Systems the Contractor installs and places into operation will not result in any damage to existing facilities, walls, or other parts of adjacent, abutting or overhead buildings, structures, surfaces, or any physical/mental damage to any individual utilizing any units(s) of equipment.
- 3. All provided equipment is new and unused.
- 4. Warranties provided in this Section 1.6 are in addition to warranties set forth in the General Conditions.
- 5. UNLESS MODIFIED BY AMENDMENT OR THE SOLICITATION DOCUMENTS, THE WARRANTIES IN THIS SECTION I.6 ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, OR WHETHER ARISING BY COURSE OF DEALING OR PERFORMANCE, CUSTOM, USAGE IN THE TRADE OR PROFESSION OR OTHERWISE, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND NO OTHER REPRESENTATIONS OR WARRANTIES HAVE FORMED THE BASIS OF THE BARGAIN HEREUNDER.

#### **I.6.7** Pervasive Defects

The Contractor agrees to promptly remedy, at no cost to NCTA, any defects determined by NCTA to be Pervasive, such that if NCTA determines that any equipment, component, sub-component, or software is experiencing continued or repetitive failure that requires constant replacement or repair, the Contractor agrees that a "Pervasive Defect" shall be deemed to be present in such affected types of equipment or software. The Contractor shall perform an investigation of the issues and prepare a report that includes a reason for the failure and their Plan for remedy. Such correction shall be in a manner

satisfactory to NCTA and that permanently addresses the problem and corrects the defect so that such defect does not continue to occur.

The obligations set forth in this section shall be in addition to any warranty obligations set forth in this Agreement. The provisions of this section shall survive the expiration or earlier termination of this Agreement.

#### I.6.8 General Guaranty

Neither Acceptance of the System and Services or payment therefor, nor any provision in this Agreement, nor partial or entire use of the System and Services by NCTA shall constitute an Acceptance of System and Services not performed in accordance with this Agreement or relieve the Contractor of liability for any express or implied warranties or responsibility for faulty materials or workmanship.

## **I.7 Software and License**

A software license and escrow agreement shall be attached to the final Contract as Exhibit E. The license and escrow agreement shall include the terms and conditions set forth below in this Section 1.7.

#### **I.7.1 Description of License**

The Contractor hereby grants to NCTA, for purposes of operating the System, an unlimited, fully-paidup, royalty-free, perpetual, universal, irrevocable, non-exclusive license: (i) to use, maintain, disclose, modify, adapt, and improve any and all Software and other equipment; notwithstanding the foregoing, any modifications not made by the Contractor, its Subcontractors or agents shall be subject to Contractor validation in order to continue to maintain applicable warranties. (ii) to use all resulting versions, modifications, adaptations, and improvements of any and all software and other equipment; (iii) to make, have made, use, distribute and display copies, reproductions, and derivative works of any and all software and Documentation; and (iv) to permit any other person or entity providing services to NCTA to do any and all of the foregoing (i) through (iii). The foregoing license includes the right to use any Systems, processes, methods, applications, technical data specifications and other documentation (including those provided by the Contractor, any third-party or currently used by NCTA) comprised or practiced by the equipment or that are necessary or useful to operate the System.

#### I.7.2 Scope of License

All rights and licenses granted to NCTA under this Agreement shall be exercisable at any time by NCTA and each of the persons and entities provided Services by the Contractor. The license shall permit NCTA to add at any time, entities, or persons to receive Contractor Services with no additional license fees charged to NCTA. The foregoing shall apply to NCTA, and such persons and entities and their respective successors and assigns. Contractor shall include, without requirement of any payment or provision of any consideration other than or in addition to that which is expressly specified by this Agreement, the right of NCTA and each other person or entity referred to in this subparagraph:

- to utilize the System (including all equipment or related documentation), in whole or in part, in connection with Services provided by or to NCTA or such other persons or entities, without regard to present or future location, including for purposes of technical support, Maintenance or repair;
- 2. to make multiple copies of the software and related Documentation for purposes of the exercise

of NCTA's rights and licenses hereunder;

- to use the software and related documentation on or in connection with multiple processors, components obtained by or on behalf of NCTA from the Contractor or from third parties, and Systems (including the System) utilized by NCTA or any person or entity providing Services to or on behalf of NCTA;
- to maintain and modify the software subject to the Contractor validation set forth in Section 1.7.1. Description of License subparagraph (i) and to use the resulting versions and modifications thereof;
- 5. to sell or distribute user technology, device, or method permitting public access to and use of the user Interface of the System, to any person or entity; and
- 6. to exercise any and all such rights and licenses under this Agreement through the services of its employees, agents, independent contractors or Subcontractors, or such other persons or entities as it may employ or engage in its own discretion, and to disclose the software and related documentation, in whole or in part, to such persons or entities for such purposes.

For the avoidance of doubt, nothing in this Agreement shall restrict or preclude NCTA from providing to any other person or entity, or any such other person or entity from using, any of the equipment, Software or other materials provided to NCTA hereunder by the Contractor, in connection with the provision of any products or Services to or on behalf of NCTA, or to any person or entity providing Services to or on behalf of NCTA.

Pre-existing Contractor software shall remain the property of the Contractor and nothing in this Agreement shall be construed to provide title to such software to NCTA, subject to the License provided as set forth in Section 1.7.1. Description of License.

#### 1.7.3 Escrow

I. Establishing the Escrow

Upon execution of the Contract the parties shall enter into a software escrow agreement, prior to depositing the Software and related Documentation into escrow, the Contractor shall submit the name of the escrow agent to NCTA for its Approval. In the event that the escrow agent requires its own form of escrow agreement, the form of escrow agreement used by the escrow agent shall be subject to the prior written Approval of NCTA and if not Approved by NCTA, then another escrow agent shall be selected. If the escrow agent's form of escrow agreement is Approved by NCTA, said escrow agreement shall be used.

2. Deposits

Pursuant to the terms of the escrow agreement, the Contractor shall deposit with the escrow agent, without charge to NCTA, all Deposit Materials (as hereinafter defined) necessary or useful to: (i) use, reproduce, modify, repair and maintain the Software; (ii) operate, modify, repair and Maintain the equipment, and (iii) operate, use, modify, repair and maintain the System in accordance with this Agreement. Access to and rights in the materials in the escrow shall be governed by the terms and conditions hereof and as further defined in the escrow agreement.

Materials so deposited ("Deposit Materials") shall include but not be limited to: all software programs (including all source and object code with respect thereto); configuration files; ICDs;

operator's and user's manuals, and other associated documentation; reports; control files, utilities, and packages; operating Systems; database Systems; network packages; Maintenance items (including test programs and program specifications); functional documentation, compilers, instructions for generating the software, and any proprietary software tools that are necessary in order to maintain the software and other equipment. A list of all deposit materials shall accompany the Deposit Materials.

Contractor shall deposit a complete set of Deposit Materials upon the Acceptance of the first Roadway System Implementation Phase and shall make deposit updates no less frequently than quarterly or when major updates are made to software pursuant to the following paragraph, whichever occurs first.

In the event the Contractor revises or supplements any of the Deposit Materials or creates additional materials related to the System, the Contractor shall deposit a complete set of such revised, supplemented, or additional Deposit Materials with the above named escrow agent within thirty (30) Calendar Days of such revision, supplement or addition and shall indicate with each deposit which documents and which pages have been revised, supplemented or added since the last deposit. Any deposits made pursuant to the two preceding sentences shall become part of the Deposit Materials.

The Contractor shall provide Notice to NCTA confirming and describing the content of any deposits made within thirty (30) Calendar Days of such deposits, certifying that all such deposits are complete and include accurate copies of the required materials.

To the extent the software includes components developed by third parties, the Contractor shall ensure that the Deposit Materials include copies of license agreements, computer programs, disks, and documentation for all software obtained by the Contractor from third parties. At the Contractor's expense, the Contractor shall ensure that all third-party licenses are transferable to NCTA at the time of any release of the escrow provided for hereunder.

3. Payment for Costs of Escrow

The Contractor shall be responsible for payment of all costs arising in connection with the establishment and maintenance of the escrow, referred to in this Section 1.7.3, throughout the Contract Term, including any fees of the escrow agent, and NCTA shall not be charged by the Contractor for its time in compiling and depositing Deposit Materials. The Contractor's obligation to maintain the escrow in place shall continue after the expiration or termination of the Contract Term until the Contractor receives Notice from NCTA that the escrow is no longer required, pursuant to paragraph 5 below, Release of Escrow Deposits.

4. Verification of Escrow Deposits

From time to time while the escrow is in place, NCTA may, at its sole discretion, verify directly or hire a firm qualified and mutually and reasonably acceptable to both parties, to provide verification of the applicable escrow deposits at NCTA's expense, and to prepare a report. The agreement between NCTA and such firm will include non-disclosure provisions deemed appropriate by NCTA. Should any deficiencies or differences be noted between the System implemented under this Agreement and the applicable deposits delivered to the escrow agent, NCTA shall provide Notice to the Contractor and shall provide the Contractor with a copy of the audit report. Within thirty (30) Calendar Days after its receipt of such notification and accompanying audit report, the Contractor shall deliver to the Escrow Agent for deposit the applicable Deposit Materials necessary to make the escrow deposits consistent with the System.

5. Release of Escrow Deposits

Except as may be otherwise provided in the escrow agreement, the Deposit Materials are to remain in escrow unless or until the withdrawal of such Deposit Materials is permitted pursuant to **Part IV, Terms and Conditions**, Section 2.6 of this Agreement, or upon end of the Contract, whether due to termination or expiration, at which time such Deposit Materials shall be provided to NCTA subject to the limitations contained in the confidentiality provisions, and the terms of the escrow agreement, and shall be incorporated into the licenses granted to NCTA hereunder.

In addition, effective upon any release of the Deposit Materials to NCTA, the Contractor hereby grants to NCTA and its designees a perpetual, irrevocable, universal, non-exclusive, fully-paid-up, royalty-free license to use, reproduce, adapt, modify, enhance and reverse engineer the source code form of the Software and all Deposit Materials for the purpose of supporting and maintaining the System, and for using, making, and having made derivatives of the Software and Deposit Materials in connection therewith. The license granted hereunder shall cover the full definition of Software, including components directly owned, developed or licensed by the Contractor, as well as components owned, developed or licensed by any Contractor affiliates, licensors, Contractor parties, including third-party Software suppliers.

## **1.8 Authority of the Contractor Project Manager**

The Contractor hereby authorizes the NCTA Contractor Project Manager ("Contractor Project Manager") to determine in the first instance all questions of any nature whatsoever arising out of, under, or in connection with, or in any way related to or on account of, this Agreement including, without limitation: questions as to the value, acceptability and of the Services; questions as to either party's fulfillment of its obligations under this Agreement; negligence, fraud or misrepresentation before or subsequent to execution of this Agreement; questions as to the interpretation of **Part III, Scope of Work and Requirements**; and claims for damages, compensation and losses.

- 1. The NCTA Contractor Project Manager shall act as the Designated Representative of NCTA in all matters relating to the Project.
- 2. The NCTA Contractor Project Manager may give orders to the Contractor to do Work that they determine to be necessary for the Contractor to fulfill the Contractor's obligations under this Agreement.
- 3. If requested by the Contractor, the NCTA Contractor Project Manager will promptly provide appropriate explanations and reasons for his determinations and orders hereunder.
- 4. The Contractor shall be bound by all determinations or orders and shall promptly obey and follow every order of the NCTA Contractor Project Manager, including the withdrawal or modification of any previous order and regardless of whether the Contractor agrees with the NCTA Contractor Project Manager's determination or order. Orders shall be in writing, unless not practicable, in which event any oral order must be confirmed in writing by the Contractor Project Manager as soon thereafter as practicable.

## **I.9 Key Team Personnel**

The Contractor has designated an individual Project Principal, who is an officer authorized to sign the Agreement and any Amendments to the Agreement and to speak for and make commitments on behalf of the Contractor. The Contractor shall designate a project manager ("Contractor Project Manager"), identified in the Proposal, who shall act as the primary point of contact in all matters on behalf of Contractor. The Contractor Project Manager shall assign other individuals as contacts with regard to specific functional areas of the Work, subject to the Approval of NCTA. NCTA shall have input into determining who shall be assigned as Project Manager for Contractor and the Contractor may not change the Contractor Project Manager without consulting with NCTA and obtaining Approval from NCTA as set forth in the following paragraph.

- 1. The Contractor's Proposal identifies certain job categories as "Key Team Personnel" for the Agreement. Key Team Personnel for this Project are identified in the Contractor's Proposal and shall be Approved as part of the Project Management Plan as set forth in **Part III, Scope of Work and Requirements**. Key Team Personnel shall be required to work in the position indicated in the Proposal and Approved Project Management Plan unless Approval is obtained from NCTA. The Contractor shall obtain NCTA's prior Approval to any desired changes in Key Team Personnel or any significant reduction in the level of effort for such Key Team Personnel, which consent shall not be unreasonably withheld. Should NCTA determine during the term of the Agreement that the list of Key Team Personnel does not include personnel essential to the successful performance of the Work, NCTA may require the Contractor to add any existing job category to such list.
- 2. If NCTA becomes dissatisfied with the performance of any person designated as Key Team Personnel performing under this Agreement, NCTA shall notify Contractor in writing. Within ten (10) Business Days of receipt of such Notice, the Contractor shall either propose a replacement person for evaluation and Approval by NCTA or present to NCTA a Plan for correcting the incumbent's performance deficiencies within a period of thirty (30) Calendar Days thereafter. If either NCTA rejects the Plan presented by Contractor or the incumbent's performance deficiencies are not corrected to NCTA's satisfaction within the thirty (30) Calendar Day plan period Approved by NCTA, then the Contractor shall, within ten (10) Business Days after rejection of the Plan or expiration of the thirty (30) Business Day plan period, propose to NCTA a replacement person for evaluation and Approval by NCTA.

## **1.10** Phases of the Project and Acceptance

#### I.I0.I Phases of the Project

The Contractor shall perform all planning, design, testing, and installation services and complete and have Approval for all corresponding Submittals, Deliverables and Milestones required in **Part III, Scope of Work and Requirements** for the Implementation Phase for a Project. The Implementation Phase shall begin at Notice to Proceed and shall be continued until completion of Onsite Installation Test. The System Acceptance Phase shall begin after completion of the Onsite Installation Test and shall continue until System Acceptance is complete, as further defined in this Agreement and in **Part III, Scope of Work and Requirements**.

The Contractor's Operations and Maintenance Phase responsibilities at a typical Project shall begin upon System Acceptance and shall continue until the expiration of the Initial Contract Term, and also shall include any Contract renewals or extensions thereof. Commencement of this Phase shall not relieve the Contractor of any of its responsibilities to complete all Requirements set forth in **Part III, Scope of Work and Requirements** of the Implementation Phase and does not waive any of the rights of NCTA in this regard.

## I.I Acceptance of Implementation Phase and Installation and System Acceptance Phase

Provisional Acceptance for the Implementation Phase of a project will be achieved when NCTA, in its sole discretion, determines that Contractor has complied with the completion Requirements set forth for that Phase under the Agreement, including in **Part III, Scope of Work and Requirements**, pursuant to Section 1.10.3 below.

Final Acceptance of the Implementation Phase will be considered by NCTA to have occurred, when NCTA has received and Approved all Project documents, drawings, software, interface data, test data, manuals and other Deliverables for the Implementation Phase, and Contractor shall have successfully completed the Acceptance Testing and when in NCTA's sole discretion Contractor has met all other obligations under the Agreement, including in **Part III, Scope of Work and Requirements**, pursuant to Section 1.10.4 below.

Project Acceptance will be considered to have occurred when NCTA, in its sole discretion, determines that Contractor has complied with all completion Requirements set forth for the Project for both the Implementation and Operations and Maintenance Phases, pursuant to Section 1.10. 5 below.

NCTA's beneficial use of the Project Deliverables during any phase prior to Project Acceptance shall not constitute Acceptance of any Deliverable, nor shall such use give rise to equitable claim for adjustment.

#### I.II.I Provisional Acceptance

NCTA, in its sole discretion, may grant a Provisional Acceptance of the Implementation Phase if it deems that the Work on the Implementation Phase is substantially complete, and the following conditions have been met:

- 1. Contractor has passed NCTA Commissioning test, as set forth in **Part III, Scope of Work and Requirements**;
- 2. Contractor, in NCTA's sole determination, has substantially passed and has been given Provisional Approval of the Acceptance test; and
- 3. A punch list of items not yet in compliance with **Part III, Scope of Work and Requirements** has been delivered by the Contractor and has been verified by NCTA and Approved as being complete.

NCTA shall issue a written Notice of Provisional Acceptance upon satisfaction of the conditions listed above in items I through 3. The occurrence of Provisional Acceptance shall not relieve the Contractor of any of its continuing obligations hereunder.

#### I.II.2 Final Acceptance of Implementation Phase and Installation and System Acceptance Phase

Final Acceptance of the Implementation and Installation and System Acceptance Phase shall be deemed to have occurred when all of the following conditions have been met:

- The Contractor shall provide a Final Acceptance letter Certification to close out the Phase. The Certification shall include but not be limited to total costs associated with the Phase, date of Work completion and any additional required information contained in item 2 through 8 below, if applicable,
- 2. Successful completion and Approval of the Acceptance Test(s), as applicable, by NCTA, as defined in **Part III, Scope of Work and Requirements**,
- 3. Delivery by the Contractor and Approval by NCTA of all Deliverables, including As-Built Documentation/Drawings, as defined in **Part III, Scope of Work and Requirements**,
- 4. Any and all punch list items have been satisfactorily completed and approved by NCTA,
- 5. An Affidavit has been delivered to NCTA signed by the Contractor, stating all debts and claims of suppliers and Subcontractors have been paid and/or settled,
- 6. All Contractor claims for the Phase are deemed to be resolved by NCTA, and the Contractor has submitted a statement that no such requests or protests will be applied for; any and all claims under this Agreement are resolved, and that no such claims will be made,
- 7. All of Contractor's other obligations under the Agreement shall have been satisfied in full or waived in writing by NCTA, and
- 8. NCTA shall have delivered to the Contractor a Notice of Final Acceptance for the Phase.

#### **1.11.3 Project Acceptance of All Phases**

Project Acceptance shall mean the Final Acceptance for all Phases, including both Implementation Installation and System Acceptance Phase, and shall be deemed to have occurred when all of the following conditions have been met:

1. The Contractor shall provide a Project Acceptance letter Certification to close out the Agreement. The Certification shall include but not be limited to total costs associated with the Agreement, date of Work completion and any additional required information contained in item

2 through 9 below, if applicable,

- 2. The Implementation Phase has been Accepted and closed out in accordance with **Part IV, Terms** and **Conditions**, Section 1.10.4
- The Contractor has met all End of Contract and transition Requirements pursuant to Part IV, Terms and Conditions, Section 2.7 End of Contract and Transition and Part III, Scope of Work and Requirements,
- 4. The Contractor has deposited all current escrow materials required under this Agreement, including all necessary documentation and support materials,
- 5. The Contractor has provided NCTA with all required materials, fixtures, furnishings, equipment and software; documentation and manuals, either owned by or licensed to NCTA, pursuant to this Agreement. All such materials have been verified by NCTA to be in good, working order,
- 6. An Affidavit has been delivered to NCTA, signed by the Contractor, stating all debts and claims of suppliers and Subcontractors have been paid and/or settled,
- 7. All Contractor claims for the Phase are deemed to be resolved by NCTA, and the Contractor has submitted a statement that no such requests or protests will be applied for; any and all claims under this Agreement are resolved, and that no such claims will be made,
- 8. All Requirements identified in **Part III, Scope of Work and Requirements** shall be verified and Certified by the Contractor to be successfully delivered, and shall be Approved by NCTA, and
- 9. All the Contractor's other obligations under the Agreement shall have been satisfied in full or waived by NCTA.

#### I.II.4 Project Completion

Project Completion shall be deemed to have occurred when all obligations under this Agreement have been successfully performed by the Contractor, including but not limited to all retentions owed to the Contractor have been released by NCTA and, when NCTA has delivered a Notice of Project completion to the effect of the foregoing.

## **I.12Order of Precedence**

The Contract is subject to the terms and conditions of this solicitation, which, in case of conflict, shall have the following Order of Precedence:

- I. Executed Contract Amendments, including all Exhibits and Attachments
- 2. RFP Part IV, Terms and Conditions Sections 1 and 2, including Addenda
- 3. RFP Part I, Administrative
- 4. RFP **Part III, Conformed Scope of Work and Requirements**, including all Attachments and Addenda
- 5. RFP Part IV, Terms and Conditions, Section 3 General Terms and Conditions
- 6. Contractor's Price Proposal
- 7. Contractor's Technical Proposal, including Exhibits and Appendices other than Price Proposal

## 1.12 Assurances

In the event that criminal or civil investigation, litigation, arbitration or other proceedings disclosed to the State pursuant to **Part III, Scope of Work and Requirements**, Section 1.2 Content of Technical Proposal, or of which NCTA otherwise becomes aware, during the term of the Agreement, causes NCTA to be reasonably concerned about:

- 1. The ability of the Contractor or its Subcontractor to continue to perform the Agreement in accordance with its terms and conditions, or
- 1. Whether the Contractor or its Subcontractor in performing Services is engaged in conduct which is similar in nature to conduct alleged in such investigation, litigation, arbitration or other proceedings, which conduct would constitute a breach of the Agreement or violation of law, regulation or public policy, then the Contractor shall be required to provide NCTA all reasonable assurances requested by NCTA to demonstrate that: the Contractor or its Subcontractors hereunder will be able to continue to perform the Agreement in accordance with its terms and conditions, and the Contractor or its Subcontractors will not engage in conduct in performing Services under the Agreement which is similar in nature to the conduct alleged in any such litigation, arbitration or other proceedings.

## 2. Contract Changes and Termination

## 2.1 General

The following Contract changes are allowable within the scope of this Contract:

- Task Orders NCTA anticipates issuing Task Orders for Work required to provision new systems, enhance software, upgrade equipment, enhance or otherwise improve Operations and Maintenance Services for needed activities in accordance with labor rates proposed and set forth in the Price Proposal.
- 2. Change Orders NCTA anticipates using Change Orders to address variances in the original quantities tabulated or scope pursuant to the Task Order.
- 3. Time Extensions NCTA anticipates issuing Time Extensions, as necessary, to modify Project milestones for reasons out of the control of the Contractor. Unless otherwise agreed to by NCTA in writing, the Contractor's Payment Schedule and Price Proposal, including labor rates identified in the Price Proposal, shall apply to all of the above Contract changes.
- 4. Cost for Additional Work Unless otherwise agreed to by NCTA in writing, the Contractor's Payment Schedule and Price Proposal, including labor rates identified in the Price Proposal, shall apply to all of the above Contract changes discussed in this section. If cost for additional Work and/or Services cannot be established on the basis of the Price Proposal or the Payment Schedule, a catalog or market price of a commercial product sold in substantial quantities, or on the basis of prices set by law or regulation, the Contractor is required to submit to NCTA detailed cost breakdown, including information on labor and materials costs, overhead and other indirect costs.
## 2.2 Task Orders

1. NCTA will use Task Orders to provision new systems and Services under this Contract. Task Orders will reference applicable requirements and pricing information within this RFP and provide supplementary information relative to the Project.

# 2.3 Change Orders

- I. A Change Order will be a change in Design or Work needed to maintain operation of NCTA Wrong-Way Driver Detection and Notification System after Acceptance of the original System by NCTA. Examples of this type of work include:
  - a. Software modifications and upgrades to improve reliability, diagnostics, ITSM, Inventory Management, interfaces to traffic management, or other tasks directly related to detection, deterrence, and notification.
  - b. Hardware upgrades to provide better data storage and handling, such as replaced, improved, or expanded hard drives, routers, etc., or prototype new equipment to test System modifications. This does not include updates or upgrades required to meet required System or transaction growth or modifications currently included in the Scope of Work and Requirements.
- NCTA may elect to have the Contractor perform the Change Order Work. In this case, the Contractor shall provide a detailed Technical and Price Proposal for the order and await Approval and Notice to Proceed from NCTA before incurring any expenses for which the Contractor expects reimbursement.

## 2.4 Time Extensions, Schedule Changes and Submittals

## 2.4.1 Time Extensions and Schedule Changes

- Within fourteen (14) Calendar Days of Notice to Proceed the Contractor shall submit a Preliminary Project Implementation Schedule for Approval in accordance with the Requirements set forth in **Part III, Scope of Work and Requirements**. The Approved Preliminary Project Implementation Schedule at the time of the execution of the Agreement shall be included as **Exhibit A, Preliminary Project Implementation Schedule**.
- 2. The Contractor shall clearly label each update against the Approved Preliminary Project Implementation Schedule, pursuant to the Requirements of the Approved Project Management Plan. Submission of the monthly updates against the Approved Schedule for the Implementation Phase shall not release or relieve the Contractor from full responsibility for completing the Work within the time set forth in the Approved Implementation Schedule. If the Contractor causes delays and fails or refuses to implement measures sufficient to bring its Work back into conformity with the current Approved Schedule, its right to proceed with any or all portions of the associated Work may be terminated under the provisions of the Contract. However, in the event that NCTA, in its sole determination, should permit the Contractor to proceed, NCTA's permission shall in no way operate as a waiver of its rights nor shall it deprive NCTA of its rights under any other provisions of the Contract.
- 3. NCTA will Approve Time Extensions ONLY for Force Majeure causes or acts by NCTA which have been documented to have impeded the Contractor's Project progress.

- 4. Any changes to the Approved Implementation Schedule require Approval and an Amendment to the Contract.
- 5. Unless otherwise expressly agreed to by NCTA, the Contractor shall not receive extra compensation or damages for any time extension Approved by NCTA for completion of additional and/or altered Work. However, the Contractor shall be fully compensated for such Work as agreed upon by NCTA and the Contractor in the Change Order or the supplemental agreements.

## 2.4.2 Submittals

Contractor's Submittal requirements and Submittal schedule shall be as set out in Contractor's Approved Program Management Plan, as required in **Part III, Scope of Work and Requirements**. The baseline schedule Approved after Notice to Proceed shall establish accepted dates by which Contractor shall submit required permits, documents, and applications, including all necessary documents in support thereof. NCTA's written Approval will be required for these Submittals. NCTA will Approve or reject such Submittals, providing an explanation of any reasons for rejection in a form agreed to in the Project Management Plan. In any instance where NCTA does not provide Approval, rejection, or written notification of an extended review period by the due date specified in the Approved Baseline Schedule, the Contractor shall notify NCTA in writing that NCTA response is due. NCTA's right to extend the review period is intended to allow flexibility in special circumstances where the nature of the Submittal requires more involved review, and not as a diminution of NCTA's obligation to promptly review Submittals. NCTA reserves the right to reject Submittals that are not complete or correct and to extend the review period accordingly.

Contractor shall not be held responsible for delays in schedule due to delays in Approvals and permits completely beyond the control of the Contractor. Notwithstanding the foregoing, Contractor shall make every effort to work around and mitigate the impact of delay.

# **2.5 Contract Termination**

## 2.5.1 Termination General Requirements

- The Contract issued for Wrong-Way Driver Detection and Notification Systems will terminate at the end of the Contract Term(s) set forth above, inclusive of any Operations and Maintenance and or extension periods as noted in **Part IV, Terms and Conditions**, Section 1.2 Contract Terms.
- 2. NCTA may terminate the Contract(s), in whole or in part, for default subject to the default provisions set forth below.
- 3. Any required Notices of termination made under this Contract shall be transmitted via U.S. Mail, Certified Return Receipt Requested, or personal delivery to the Contractor's Representative. The period of Notice for termination shall begin on the Calendar Day the return receipt is signed and dated or upon personal delivery to the Contractor(s) contract administrator.
- 4. The parties may mutually terminate this Contract by written agreement at any time.
- 5. NCTA may terminate this Contract, in whole or in part, pursuant to the Terms and Conditions in the Solicitation Documents.

- 6. NCTA will notify the Contractor(s) at least ninety (90) Calendar Days prior to the termination of the Contract in the absence of cause. This notification will require the Contractor(s) to initiate actions in preparation for leaving the NCTA Project site and handing off Operations to replacement entities. These actions shall include:
  - a. Acknowledgement of receipt of End of Contract notification, and
  - b. Act in accordance with **Part IV, Terms and Conditions**, Section 2.7 End of Contract and Transition.

## 2.5.2 Termination for Cause

- 1. In the event any equipment, hardware, software, or services furnished by the Contractor during performance of any Contract Term fails to conform to any material requirement of the Contract, and the failure is not cured within the specified time after providing written Notice thereof to Contractor, NCTA may cancel and procure the Work or Services from other sources; holding Contractor liable for any excess costs occasioned thereby. The rights and remedies of NCTA provided above shall not be exclusive and are in addition to any other rights and remedies provided by law or under the Contract. The Contractor shall not be relieved of liability to NCTA for damages sustained by NCTA arising from Contractor's breach of this Contract; and NCTA may, in its discretion, withhold any payment due as a setoff until such time as the damages are finally determined or as agreed by the parties. Voluntary or involuntary Bankruptcy or receivership by Contractor shall be cause for termination.
- 2. "Cause" shall mean a material breach of this Agreement by the Contractor. Without limiting the generality of the foregoing and in addition to those instances referred to elsewhere in this Agreement as a breach, a material breach shall include the following:
  - a. the Contractor has not submitted acceptable Deliverables to NCTA on a timely basis,
  - b. the software/equipment proves incapable of meeting the Functional Requirements set forth in **Part III, Scope of Work and Requirements**,
  - c. the Contractor refused or failed, except in cases for which an extension of time is provided, to supply enough properly skilled workers or proper materials to properly perform the Services required under this Agreement,
  - d. the Contractor failed to make prompt payment to Subcontractors or suppliers for materials or labor,
  - e. the Contractor has become insolvent (other than as interdicted by the bankruptcy laws), or has assigned the proceeds received from this Agreement for the benefit of its creditors, or it has taken advantage of any insolvency statute or debtor/creditor law or if the Contractor's property or affairs have been put in the hands of a receiver,
  - f. any case, proceeding or other action against the Contractor is commenced in bankruptcy, or seeking reorganization, liquidation or any relief under any bankruptcy, insolvency, reorganization, liquidation, dissolution or other similar act or law of any jurisdiction, which case, proceeding or other action remains undismissed, undischarged or unbonded for a period of thirty (30) Calendar Days,

- g. the Contractor fails to maintain insurance policies and coverages or fails to provide proof of insurance or copies of insurance policies as required by this Agreement,
- h. any warranty, representation, certification, financial statement or other information made or furnished to induce NCTA to enter into this Agreement, or made or furnished, at any time, in or pursuant to the terms of this Agreement or otherwise by the Contractor, or by any person who guarantees or who is liable for any obligation of the Contractor under this Agreement, shall prove to have been false or misleading in any material respect when made,
- i. any intentional violation by the Contractor of the ethics provisions, or applicable laws, rules, or regulations,
- j. the Contractor has failed to obtain the Approval of NCTA where required by this Agreement,
- k. the Contractor has failed in the representation of any warranties stated herein,
- I. the Contractor makes a statement to any representative of NCTA indicating that the Contractor cannot or will not perform any one or more of its obligations under this Agreement,
- m. the Contractor fails to remedy Pervasive Defects,
- n. any act or omission of the Contractor or any other occurrence which makes it improbable at the time that the Contractor will be able to perform any one or more of its obligations under this Agreement,
- o. any suspension of or failure to proceed with any part of the Services by the Contractor which makes it improbable that the Contractor will be able to perform any one or more of its obligations under this Agreement,
- p. a pattern of repeated failures to meet the performance metric or metrics as defined in **Part III, Scope of Work and Requirements**,
- q. the suspension or revocation of any license, permit, or registration necessary for the performance of the Contractor's obligations under this Agreement, or
- r. the default in the performance or observance of any of the Contractor's other obligations under this Agreement and the continuance thereof for a period of thirty (30) Calendar Days after Notice given to the Contractor by NCTA.
- 3. Cure/Warning Period: Prior to terminating the Contract(s) for cause, NCTA will issue a Notice of cure/warning to the Contractor(s) thirty (30) Days prior to the termination date. The Notice will be transmitted via U.S. Mail Certified Return Receipt Requested or personal delivery to the Contractor(s) Representative, and the period of Notice for termination shall begin on the date the Return Receipt is signed and dated or upon personal delivery to the Contractor contract administrator. The Notice will specify the corrective actions/work required to be taken by the Contractor to come into compliance with the terms and conditions of the Contract(s). If the corrective actions/work is performed within the cure/warning period, in a manner acceptable to NCTA, the Contract will remain in effect in accordance with the terms and conditions thereof.

4. Termination Without Notice of Cure/Warning: If NCTA has issued two Notices of cure/warning to the Contractor, upon the issuance of the third or subsequent Notice, NCTA reserves the right to terminate the Contract without further Notice. The failure of NCTA to exercise this right on any occasion shall not be deemed a waiver of any future right.

## 2.5.3 Termination for Convenience Without Cause

NCTA may terminate the Contract(s) without cause, in whole or in part by giving ninety (90) days prior Notice in writing to the Contractor. The Contractor shall be entitled to sums due as compensation for Deliverables provided and Services performed in conformance with the Contract. In the event the Contract is terminated for the convenience of NCTA, NCTA will pay for all Work performed and products delivered in conformance with the Contract up to the date of termination. This is an incidental item within **Part III, Scope of Work and Requirements**, but without separate compensation.

# 2.6 End of Contract

If the Agreement is not renewed at the end of this term or is canceled prior to its expiration, for any reason, the Contractor shall cooperate with NCTA to facilitate a smooth succession to NCTA's selected successor for the Services, whether the successor is NCTA or a third-party.

The Contractor must also provide for up to six (6) months after the expiration or cancellation of the Agreement, all reasonable transition assistance requested by the State, to allow for the expired or canceled portion of the Services to continue without interruption or adverse effect, and to facilitate the orderly transfer of such Services to the State or its designees. Such transition assistance will be deemed by the parties to be governed by the terms and conditions of the Agreement, (notwithstanding this expiration or cancellation) except for those Contract Terms or conditions that do not reasonably apply to such transition assistance. The State shall pay the Contractor for any resources utilized in performing such transition assistance at the most current rates provided by the Agreement for Contract performance. If the State cancels the Agreement for cause, then the State will be entitled to offset the cost of paying the Contractor for the additional resources the Contractor utilized in providing transition assistance with any damages the State may have otherwise accrued as a result of said cancellation.

# 3. General Terms and Conditions

## 3.1 Standards

- 1. Any Deliverables shall meet all applicable State and Federal requirements, such as State or Federal Regulation, and NC Chief Information Officer's (CIO) policy or regulation. The Contractor will provide and maintain a Quality Assurance system or program that includes any Deliverables and will tender or provide to the State only those Deliverables that have been inspected and found to conform to the requirements of this Contract. All Deliverables are subject to operation, certification, testing and inspection, and any accessibility requirements as required:
  - a. Site Preparation: The Contractor shall provide NCTA complete site requirement specifications for the Deliverables, if any. These specifications shall ensure that the Deliverables to be installed shall operate properly and efficiently within the site environment. The Contractor shall advise NCTA of any site requirements for any

Deliverables required by NCTA's specifications. Any alterations or modification in site preparation which are directly attributable to incomplete or erroneous specifications provided by the Contractor, and which would involve additional expenses to NCTA, shall be made at the expense of the Contractor.

b. Specifications: The apparent silence of the specifications as to any detail, or the apparent omission of detailed description concerning any point, shall be regarded as meaning that only the best commercial practice is to prevail and only material and workmanship of the first quality may be used. Upon any Notice of noncompliance issued by NCTA, Contractor shall supply proof of compliance with the specifications within ten (10) Calendar Days. Contractor shall provide written Notice of its intent to deliver alternate or substitute products, goods or Deliverables. Alternate or substitute products, goods or Deliverables. Alternate or substitute products, goods or Deliverables at the sole discretion of NCTA; and any such alternates or substitutes shall be accompanied by Contractor's Certification and evidence satisfactory to NCTA that the function, characteristics, performance, and endurance will be equal or superior to the original Deliverables specified. All alternates or substitutes are subject to Approval by NCTA.

# 3.2 Acceptance Criteria

1. NCTA shall have the obligation to notify Contractor, in writing ten (10) Calendar Days following provision, performance (under a provided milestone or otherwise as agreed) or delivery of any Services or other Deliverables described in the Contract are not acceptable. The Notice shall specify in reasonable detail the reason(s) a given Deliverable is unacceptable. Acceptance by NCTA shall not be unreasonably withheld; but may be conditioned or delayed as required for installation and/or testing of Deliverables. Final Acceptance is expressly conditioned upon completion of any applicable inspection and testing procedures. Should a Deliverable fail to meet any specifications or Acceptance criteria, NCTA may exercise any and all rights hereunder. Deliverables discovered to be defective or failing to conform to the specifications may be rejected upon initial inspection or at any later time if the defects or errors contained in the Deliverables or non-compliance with the specifications were not reasonably ascertainable upon initial inspection. If Contractor fails to promptly cure or correct the defect or replace or reperform the Deliverables, NCTA reserves the right to cancel the Contract, contract with a different contractor, and to invoice the original Contractor for any differential in price over the original Contract price.

## 3.3 Personnel

Contractor shall not substitute key personnel assigned to the performance of the Contract without prior written approval by the NCTA Contract Administrator. The individuals designated as key personnel for purposes of the Contract are those specified in the Contractor's offer. Any desired substitution shall be noticed to the NCTA's Contract Administrator in writing accompanied by the names and references of Contractor's recommended substitute personnel. NCTA will approve or disapprove the requested substitution in a timely manner. NCTA may, in its sole discretion, terminate the Services of any person providing Services under the Contract. Upon such termination, NCTA may request acceptable substitute personnel or terminate the Contract Services provided by such personnel.

- 1. Unless otherwise expressly provided in the Contract, Contractor will furnish all of its own necessary management, supervision, labor, facilities, furniture, computer and telecommunications equipment, software, supplies and materials necessary for the Contractor to provide and deliver the Services and other Deliverables.
- 2. Contractor personnel shall perform their duties on the premises of NCTA, during NCTA's regular workdays and normal work hours, except as may be specifically agreed otherwise, established in the specification, or statement of work.
- 3. The Contract shall not prevent Contractor or any of its personnel supplied under the Contract from performing similar Services elsewhere or restrict Contractor from using the personnel provided to NCTA, provided that:
  - a. Such use does not conflict with the terms, specifications, or any amendments to the Contract, or
  - b. Such use does not conflict with any procurement law, regulation, or policy, or
  - c. Such use does not conflict with any non-disclosure Contract, or term thereof, by and between the State and Contractor or Contractor's personnel.
- 4. Unless otherwise provided by NCTA, the Contractor shall furnish all necessary personnel, Services, and otherwise perform all acts, duties and responsibilities necessary or incidental to the accomplishment of the tasks specified in the Contract. The Contractor shall be legally and financially responsible for its personnel including, but not limited to, any deductions for social security and other withholding taxes required by state or federal law. The Contractor shall be solely responsible for acquiring any equipment, furniture, and office space not furnished by NCTA necessary for the Contractor to comply with the Contract. The Contractor personnel shall comply with any applicable State facilities or other security rules and regulations.

## 3.4 Subcontracting

1. The Contractor may subcontract the performance of required Services with other contractors or third parties, or change Subcontractors, only with the prior written consent of NCTA. Contractor shall provide NCTA with complete copies of any agreements made by and between Contractor and all Subcontractors. The Contractor remains solely responsible for the performance of its Subcontractors. Subcontractors, if any, shall adhere to the same standards required of the Contractor. Any contracts made by the Contractor with a Subcontractor shall include an affirmative statement that NCTA is an intended third-party beneficiary of the contract; that the Subcontractor has no agreement with NCTA; and that NCTA shall be indemnified by the Contractor for any claim presented by the Subcontractor. Notwithstanding any other term herein, Contractor shall timely exercise its contractual remedies against any non-performing Subcontractor and, when appropriate, substitute another Subcontractor.

## 3.5 Contractor's Representation

1. Contractor warrants that qualified personnel shall provide Services in a professional manner. "Professional manner" means that the personnel performing the Services will possess the skill and competence consistent with the prevailing business standards in the information technology industry. Contractor agrees that it will not enter into any agreement with a third-party that might abridge any rights of NCTA under this Contract. Contractor will serve as the prime Contractor under this Contract. Should NCTA approve any Subcontractor(s), the Contractor shall be legally responsible for the performance and payment of the Subcontractor(s). Names of any third-party contractors or Subcontractors of Contractor may appear for purposes of convenience in Contract Documents; and shall not limit Contractor's obligations hereunder. Third-party Subcontractors, if approved, may serve as Subcontractors to Contractor. Contractor will retain executive representation for functional and technical expertise as needed in order to incorporate any work by third-party Subcontractor(s).

- 2. Intellectual Property: Contractor represents that it has the right to provide the Services and other Deliverables without violating or infringing any law, rule, regulation, copyright, patent, trade secret or other proprietary right of any third-party. Contractor also represents that its Services and other Deliverables are not the subject of any actual or threatened actions arising from, or alleged under, any intellectual property rights of any third-party.
- 3. Inherent Services: If any Services or other Deliverables, functions, or responsibilities not specifically described in this Contract are required for Contractor's proper performance, provision and delivery of the Services and other Deliverables pursuant to this Contract, or are an inherent part of or necessary sub-task included within the Services, they will be deemed to be implied by and included within the scope of the Contract to the same extent and in the same manner as if specifically described in the Contract.
- 4. Contractor warrants that it has the financial capacity to perform and to continue to perform its obligations under the Contract; that Contractor has no constructive or actual knowledge of an actual or potential legal proceeding being brought against Contractor that could materially adversely affect performance of this Contract; and that entering into this Contract is not prohibited by any Contract, or order by any court of competent jurisdiction.

## **3.6 Software and Intellectual Property**

## 3.6.1 Internal/Embedded Software License and Escrow

- This section on software licenses and software in escrow applies to any source code developed or modified specifically for NCTA, application customizations and configuration settings, internal embedded software, firmware and unless otherwise provided in this NCTA RFP, or in an attachment hereto:
- 2. Deliverables comprising goods, equipment, or products (hardware) may contain software for internal operation, or as embedded software or firmware that is generally not sold or licensed as a severable software product. Software may be provided on separate media or may be included within the hardware at or prior to delivery. Such software is proprietary, copyrighted, and may also contain valuable trade secrets and may be protected by patents.
- 3. Contractor grants NCTA an unrestricted license to NCTA to use any non-commercial software provided under this Contract, for any reasonable purpose for NCTA Operations. NCTA shall have a worldwide, nonexclusive, non-sublicensable license to use such software and/or documentation for its internal use. NCTA may make and install copies of the software to support any NCTA use on the NCTA System.
- 4. The Contractor shall provide to NCTA an executable copy of all software developed for NCTA, to include source code documentation and application information. Included with the provision

of source code, the Contractor shall demonstrate to NCTA that the provided executables are the correct software for the Systems as delivered.

#### 3.6.2 Software Maintenance/Support Services

- 1. This general requirement applies unless otherwise provided in NCTA's solicitation document or in an attachment hereto.
- 2. For the first year and all subsequent Contract years, Contractor agrees to provide the following Services for the current version and one previous version of any software provided with the Deliverables, commencing upon installation of the Deliverables or delivery of the software:
  - a. Error Correction: Upon NCTA verification of an error or defect software, the Contractor shall use reasonable efforts to correct or provide a working solution for the error or defect Contractor's expense. NCTA shall comply with all reasonable instructions or requests of Contractor in attempts to correct an error or defect in the Program. Contractor and the State shall act promptly and in a reasonably timely manner in communicating error or defect logs, other related information, proposed solutions or workarounds, and any action as may be necessary or proper to obtain or effect Maintenance Services under this paragraph.
  - b. Contractor shall notify NCTA of any material errors or defects in the Deliverables known or made known to Contractor from any source during the Contract Term that could cause the production of inaccurate or otherwise materially incorrect, results. Contractor shall initiate actions as may be commercially necessary or proper to effect corrections of any such errors or defects.
  - c. Updates: Contractor shall provide to NCTA, at no additional charge, all new releases and bug fixes (collectively referred to as "Changes") for any software Deliverable developed or published by Contractor and made generally available to its other customers at no additional charge. All such updates shall be a part of the Program and documentation and, as such, shall be governed by the provisions of this Contract.
  - d. Telephone Assistance: Contractor shall provide NCTA with telephone access to technical support engineers for assistance in the proper installation and use of the software, and to report and resolve software errors and defects in accordance with Requirements of this RFP.

## 3.6.3 Patent, Copyright and Trade Secret Protection

1. Contractor has created, acquired or otherwise has rights in, and may, in connection with the performance of Services for NCTA, employ, provide, create, acquire or otherwise obtain rights in various concepts, ideas, methods, methodologies, procedures, processes, know-how, techniques, models, templates and general-purpose consulting and Software tools, utilities and routines (collectively, the "Contractor Technology"). To the extent that any Contractor Technology is contained in any of the Deliverables including any derivative works, the Contractor hereby grants NCTA a royalty-free, fully paid, worldwide, perpetual, non-exclusive license to use such Contractor Technology in connection with the Deliverables for NCTA's purposes.

- 2. Contractor shall not acquire any right, title and interest in and to the copyrights for goods, any and all software, technical information, specifications, drawings, records, Documentation, data or derivative works thereof, or other work products provided by NCTA to Contractor. NCTA hereby grants Contractor a royalty-free, fully paid, worldwide, perpetual, non-exclusive license for Contractor's internal use to non-confidential Deliverables originated and prepared by the Contractor for delivery to NCTA.
- 3. The Contractor, at its own expense, shall defend any action brought against the State to the extent that such action is based upon a claim that the Services or Deliverables supplied by the Contractor, or the operation of such Deliverables pursuant to a current version of Contractor-supplied software, infringes a patent, or copyright or violates a trade secret in the United States. The Contractor shall pay those costs and damages finally awarded against the State in any such action. Such defense and payment shall be conditioned on the following:
  - a. That the Contractor shall be notified within a reasonable time in writing by NCTA of any such claim; and,
  - b. That the Contractor shall have the sole control of the defense of any action on such claim and all negotiations for its settlement or compromise provided, however, that NCTA shall have the option to participate in such action at its own expense.
- 4. Should any Services or software supplied by Contractor, or the operation thereof become, or in the Contractor's opinion are likely to become, the subject of a claim of infringement of a patent, copyright, or a trade secret in the United States, NCTA shall permit the Contractor, at its option and expense, either to procure for NCTA the right to continue using the goods/hardware or software, or to replace or modify the same to become non- infringing and continue to meet procurement specifications in all material respects. If neither of these options can reasonably be taken, or if the use of such goods/hardware or software by NCTA shall be prevented by injunction, the Contractor agrees to take back such goods/hardware or software, and refund any sums NCTA has paid Contractor less any reasonable amount for use or damage and make every reasonable effort to assist NCTA in procuring substitute Deliverables. If, in the sole opinion of NCTA, the return of such infringing Deliverables makes the retention of other items of Deliverables acquired from the Contractor under this Contract impractical, NCTA shall then have the option of terminating the Contract, or applicable portions thereof, without penalty or termination charge. The Contractor agrees to take back such Deliverables and refund any sums NCTA has paid Contractor less any reasonable amount for use or damage.
- 5. Contractor will not be required to defend or indemnify NCTA if any claim by a third-party against NCTA for infringement or misappropriation (i) results from the State's alteration of any Contractor-branded product or Deliverable, or (ii) results from the continued use of the good(s) or Services and Deliverables after receiving Notice they infringe a trade secret of a third-party.
- 6. Nothing stated herein, however, shall affect Contractor's ownership in or rights to its preexisting intellectual property and proprietary rights.

# 3.7 Other General Provisions

## 3.7.1 Governmental Restrictions

1. In the event any restrictions are imposed by governmental requirements that necessitate alteration of the material, quality, workmanship, or performance of the Deliverables offered prior to delivery thereof, the Contractor shall provide written notification of the necessary alteration(s) to NCTA. NCTA reserves the right to accept any such alterations, including any price adjustments occasioned thereby, or to cancel the Contract. NCTA may advise Contractor of any restrictions or changes in specifications required by North Carolina legislation, rule or regulatory authority that require compliance by the State. In such event, Contractor shall use its best efforts to comply with the required restrictions or changes. If compliance cannot be achieved by the date specified in the Contract, NCTA may terminate this Contract and compensate Contractor for sums due under the Contract.

## 3.7.2 Prohibition Against Contingent Fees and Gratuities:

- 1. Contractor warrants that it has not paid, and agrees not to pay, any bonus, commission, fee, or gratuity to any employee or official of the State for the purpose of obtaining any contract or award issued by the State. Contractor further warrants that no commission or other payment was or will be received from or paid to any third-party contingent on the award of any contract by the State, except as shall be expressly communicated to NCTA in writing prior to Acceptance of the Contract or award in question. Each individual signing below warrants that he or she is duly authorized by their respective Party to sign this Contract and bind the Party to the terms and conditions of this Contract. Contractor and their authorized signatory further warrant that no officer or employee of the State has any direct or indirect financial or personal beneficial interest, in the subject matter of this Contract; obligation or contract for future award of compensation as an inducement or consideration for making this Contract. Subsequent discovery by the State of non-compliance with these provisions shall constitute sufficient cause for immediate termination of all outstanding contracts. Violations of this provision may result in debarment of the bidder(s) or Contractor(s) as permitted by State or Federal law.
- 2. Gift Ban By Executive Order 24, issued by Governor Perdue, and G.S. § 133-32, it is unlawful for any vendor or contractor ( i.e., architect, bidder, contractor, construction manager, design professional, engineer, landlord, offeror, seller, Subcontractor, supplier, or vendor), to make gifts or to give favors to any State employee of the Governor's cabinet agencies (i.e., Administration, Commerce, Correction, Crime Control and Public Safety, Cultural Resources, Environment and Natural Resources, Health and Human Services, Juvenile Justice and Delinquency Prevention, Revenue, Transportation, and the Office of the Governor). This prohibition covers those vendors and contractors who: (a) have a contract with a governmental agency; or (b) have performed under such a contract within the past year; or (c) anticipate bidding on such a contract in the future. For additional information regarding the specific requirements and exemptions, vendors and contractors are encouraged to review Executive Order 24 and G.S. § 133-32.

## 3.7.3 Equal Employment Opportunity

1. Contractor shall comply with all Federal and State requirements concerning fair employment and employment of the disabled and concerning the treatment of all employees without regard to discrimination by reason of race, color, religion, sex, national origin, or physical disability.

## 3.7.4 Inspection at Contractor's Site

I. NCTA reserves the right to inspect, during Contractor's regular business hours at a reasonable time, upon Notice of not less than two (2) weeks, and at its own expense, the prospective Deliverables comprising equipment or other tangible goods, or the plant or other physical facilities of a prospective Contractor prior to Contract award, and during the Contract Term as necessary or proper to ensure conformance with the specifications/Requirements and their adequacy and suitability for the proper and effective performance of the Contract.

## 3.7.5 Advertising / Press Release

 The Contractor absolutely shall not publicly disseminate any information concerning the Contract without prior written Approval from the State or its Agent. For the purpose of this provision of the Contract, the Agent is the NCTA Contract Administrator unless otherwise named in the solicitation documents.

## 3.7.6 Confidentiality

- 1. To promote maximum competition in the State competitive bidding process, the State may maintain the confidentiality of certain types of information described in G.S. § 132-1 et. seq. Such information may include trade secrets defined by G.S. § 66-152 and other information exempted from the Public Records Act pursuant to G.S. § 132-1.2. Contractor may designate appropriate portions of its response as confidential, consistent with and to the extent permitted under the Statutes and Rules set forth above, by marking the top and bottom of pages containing confidential information with a legend in boldface type "CONFIDENTIAL." By so marking any page, the Contractor warrants that it has formed a good faith opinion, having received such necessary or proper review by counsel and other knowledgeable advisors that the portions marked confidential meet the Requirements of the Rules and Statutes set forth above. However, under no circumstances shall price information be designated as confidential. The State may serve as custodian of Contractor's confidential information and not as an arbiter of claims against Contractor's assertion of confidentiality. If an action is brought pursuant to G.S. § 132-9 to compel the State to disclose information marked confidential, the Contractor agrees that it will intervene in the action through its counsel and participate in defending the State, including any public official(s) or public employee(s). The Contractor agrees that it shall hold the State and any official(s) and individual(s) harmless from any and all damages, costs, and attorneys' fees awarded against the State in the action. The State agrees to promptly notify the Contractor in writing of any action seeking to compel the disclosure of Contractor's confidential information. The State shall have the right, at its option and expense, to participate in the defense of the action through its counsel. The State shall have no liability to Contractor with respect to the disclosure of Contractor's confidential information ordered by a court of competent jurisdiction pursuant to G.S. § 132-9 or other applicable law.
  - a. Care of Information: Contractor agrees to use commercial best efforts to safeguard and protect any data, documents, files, and other materials received from the State or NCTA during performance of any contractual obligation from loss, destruction, or erasure.
  - b. Contractor warrants that all its employees and any approved third-party contractors or Subcontractors are subject to a non-disclosure and confidentiality agreement enforceable in North Carolina. Contractor will, upon request of the State, verify and produce true copies of any such agreements. Production of such agreements by Contractor may be

made subject to applicable confidentiality, non-disclosure or privacy laws, provided that Contractor produces satisfactory evidence supporting exclusion of such agreements from disclosure under the N.C. Public Records laws in G.S. § 132-1 et. seq. The State may, in its sole discretion, provide a non-disclosure and confidentiality agreement satisfactory to the State for Contractor's execution. The State may exercise its rights under this subparagraph as necessary or proper, in its discretion, to comply with applicable security regulations or statutes including, but not limited to 26 USC 6103 and IRS Publication 1075, (Tax Information Security Guidelines for Federal, State, and Local Agencies), HIPAA, 42 USC 1320(d) (Health Insurance Portability and Accountability Act), any implementing regulations in the Code of Federal Regulations, and any future regulations imposed upon the Office of Information Technology Services or the N.C. Department of Revenue pursuant to future statutory or regulatory Requirements.

- c. Nondisclosure: Contractor agrees and specifically warrants that it, its officers, directors, principals and employees, and any Subcontractors, shall hold all information received during performance of this Contract in the strictest confidence and shall not disclose the same to any third-party without the express written approval of the State.
- d. Contractor shall protect the confidentiality of all information, data, instruments, studies, reports, records, and other materials provided to it by NCTA or maintained or created in accordance with this Contract. No such information, data, instruments, studies, reports, records, and other materials in the possession of Contractor shall be disclosed in any form without the prior written consent of NCTA. Contractor will have written policies governing access to and duplication and dissemination of all such information, data, instruments, studies, reports, records, and other materials.
- e. All Project materials, including Software, data, and Documentation created during the performance or provision of Services hereunder that are not licensed to the State or are not proprietary to the Contractor are the property of the State of North Carolina and must be kept confidential or returned to the State, or destroyed. Proprietary Contractor materials shall be identified to the State by Contractor prior to use or provision of Services hereunder and shall remain the property of the Contractor. Derivative Works of any Contractor proprietary materials prepared or created during the performance of provision of Services hereunder shall be subject to a perpetual, royalty free, nonexclusive license to the State.

## 3.7.7 Deliverables

1. Deliverables, as used herein, shall comprise all hardware, Contractor Services, professional services, software and provided modifications to the Software, and incidental materials, including any goods, software or Services access license, data, reports, and documentation provided or created during the performance or provision of Services hereunder. Hardware, custom software first requested and developed for the State and other Deliverables not subject to owner licensing or leasing are the property of the State of North Carolina. Proprietary Contractor materials licensed to the State shall be identified to the State by Contractor prior to use or provision of Services hereunder and shall remain the property of the Contractor. Deliverables include "Work Product" and means any expression of Licensor's findings, analyses, conclusions, opinions,

recommendations, ideas, techniques, know-how, Designs, programs, enhancements, and other technical information; but not source and object code or software.

## 3.7.8 Late Delivery, Back Order

 Contractor shall advise NCTA immediately upon determining that any Deliverable will not, or may not, be delivered at the time or place specified. Together with such Notice, Contractor shall state the projected delivery time and date. In the event the delay projected by Contractor is unsatisfactory, NCTA shall so advise Contractor and may proceed to procure substitute Deliverables or Services.

## 3.7.9 Assignment

1. Contractor may not assign this Contract or its obligations hereunder except as permitted by this paragraph. Contractor shall provide reasonable Notice of not less than thirty (30) Calendar Days prior to any consolidation, acquisition, or merger. Any assignee shall affirm this Contract atoning to the terms and conditions agreed, and that Contractor shall affirm that the assignee is fully capable of performing all obligations of Contractor under this Contract. An assignment may be made, if at all, in writing by the Contractor, Assignee and the State setting forth the foregoing obligation of Contractor and Assignee.

## 3.7.10 Insurance Coverage

1. During the term of the Contract, the Contractor at its sole cost and expense shall provide commercial insurance of such type and with such terms and limits as may be reasonably associated with the Contract. As a minimum, the Contractor shall provide and maintain the coverage and limits, as set forth in **Part I, Administrative**, Section 1.28, Insurance Requirements.

#### 3.7.11 Dispute Resolution

1. In the event of any dispute whatsoever arising out of or relating to the Contract Documents, the Work or the Project, the disputing party must furnish a written Notice to the other party, setting forth in detail the dispute. Such Notice must be addressed to the other party's Project Manager. Within five (5) Days after the receipt of the Notice by the receiving Project Manager, the two Project Managers shall meet in NCTA's offices to attempt to resolve the dispute. If the Project Managers cannot resolve the dispute, then, within fourteen (14) Days after the date of written Notice by either Project Manager to the Executive Director of NCTA and the Project Principal, the Executive Director of NCTA and the Project Principal shall meet in NCTA's offices to attempt to resolve the dispute. If the Executive Director of NCTA and the Project Principal shall meet in NCTA's offices to attempt to resolve the dispute. If the Executive Director of NCTA and the Project Principal, the Executive Director of NCTA and the Project Principal shall meet in NCTA's offices to attempt to resolve the dispute. If the Executive Director of NCTA and the Project Principal cannot resolve the dispute or otherwise agree to extend the time within which to attempt to resolve the dispute, then either Party may pursue those remedies as allowed under this Contract.

## 3.7.12 Default

 In the event any Deliverable furnished by the Contractor during performance of any Contract Term fails to conform to any material requirement of the Contract specifications, notice of the failure is provided by NCTA and the failure is not cured within ten (10) Days, or Contractor fails to meet the requirements of paragraph 3.2, Acceptance Criteria, NCTA may cancel the Contract. Default may be cause for debarment. NCTA reserves the right to require performance guaranties from the Contractor without expense to the State. The rights and remedies of NCTA provided above shall not be exclusive and are in addition to any other rights and remedies provided by law or under the Contract. NCTA allows for ten (10) Days to rectify a problem and thirty (30) Days to cure a termination.

- 2. If Contractor fails to deliver or provide correct Services or other Deliverables within the time required by this Contract, NCTA may provide written Notice of said failure to Contractor, and by such Notice may require payment of liquidated damages as penalty.
- 3. Contractor will use reasonable efforts to mitigate delays, costs or expenses arising from assumptions in the Contractor's bid documents that prove erroneous or are otherwise invalid.
- 4. Contractor shall provide a Plan to cure any default if requested by NCTA. The Plan shall state the nature of the default, the time required for cure, any mitigating factors causing or tending to cause the default, and such other information as the Contractor may deem necessary or proper to provide.

## 3.7.13 Waiver of Default

 Waiver by either party of any default or breach by the other Party shall not be deemed a waiver or any subsequent default or breach and shall not be construed to be a modification or novation of the terms of this Contract, unless so stated in a writing and signed by authorized representatives of NCTA and the Contractor and made as an Amendment in accordance with the terms of this Contract.

## 3.7.14 Limitation of Contractor's Liability

- Where Deliverables are under NCTA's exclusive management and control, the Contractor shall not be liable for direct damages caused by NCTA's failure to fulfill any responsibilities of assuring the proper use, management and supervision of the Deliverables and programs, audit controls, operating methods, office procedures, or for establishing all proper checkpoints necessary for NCTA's intended use of the Deliverables.
- 2. The Contractor's liability for damages to NCTA for any cause whatsoever, and regardless of the form of action, whether in contract or in tort, shall be limited to the total value of each Task Order awarded to the Contractor under the Contract.
- 3. The foregoing limitation of liability shall not apply to the payment of costs and damage awards referred to in the paragraph entitled "Patent, Copyright, and Trade Secret Protection," to claims covered by other specific provisions calling for liquidated damages or specifying a different limit of liability, or to claims for injury to persons or damage to property caused by Contractor's negligence or willful or wanton conduct. This limitation of liability does not apply to the receipt of court costs or attorney's fees that might be awarded by a court in addition to damages after litigation based on this Contract.
- 4. For avoidance of doubt, the parties agree that the liquidated and actual damages provisions and the Warranty Terms set forth in this Contract are intended to provide the sole and exclusive remedy available to NCTA under the Contract for the Contractor's failure to comply with the requirements stated herein.

## 3.7.15 Contractor's Liability for Injury to Persons or Damage to Property

- 1. The Contractor shall be liable for damages arising out of personal injuries and/or damage to real or tangible personal property of NCTA, employees of NCTA, persons designated by NCTA for training, or person(s) other than Agents or employees of the Contractor, designated by NCTA for any purpose, prior to, during, or subsequent to delivery, installation, Acceptance, and use of the Deliverables either at the Contractor's site or at NCTA's place of business, provided that the injury or damage was caused by the fault or negligence of the Contractor.
- 2. The Contractor agrees to indemnify, defend, and hold NCTA and the State and its Officers, employees, Agents and assigns harmless from any liability relating to personal injury or injury to real or personal property of any kind, accruing or resulting to any other person, firm or corporation furnishing or supplying Work, Services, materials or supplies in connection with the performance of this Contract, whether tangible or intangible, arising out of the ordinary negligence, willful or wanton negligence, or intentional acts of the Contractor, its officers, employees, agents, assigns or Subcontractors, in the performance of this Contract.
- 3. Contractor shall not be liable for damages arising out of or caused by an alteration or an attachment not made or installed by the Contractor, or for damage to alterations or attachments that may result from the normal operation and Maintenance of the Contractor's goods.

## 3.7.16 General Indemnity

- 1. The Contractor shall hold and save NCTA, its officers, Agents, and employees, harmless from liability of any kind, including all claims and losses, with the exception of consequential damages, as normally construed, accruing or resulting to any other person, firm or corporation furnishing or supplying Work, Services, materials or supplies in connection with the negligent performance of this Contract or Contractor's breach of Contract or willful misconduct. The foregoing indemnification and defense by the Contractor shall be conditioned upon the following:
  - a. NCTA shall give Contractor written Notice within thirty (30) Days after it has actual knowledge of any such claim(s) or action(s) filed; and
  - b. The Contractor shall have the sole control of the defense of any such claim(s) or action(s) filed and of all negotiations relating to settlement or compromise thereof, provided, however, that NCTA shall have the option to participate at their own expense in the defense of such claim(s) or action(s) filed.

#### 3.7.17 Changes

 This Contract is awarded subject to shipment of quantities, qualities, and prices indicated in the Contract, and all conditions and instructions of the Contract or Proposal on which it is based. Any changes made to this Contract or purchase order proposed by the Contractor are hereby rejected unless accepted in writing by NCTA. NCTA shall not be responsible for Deliverables or Services delivered other than those specified in the Contract or the Proposal on which it is based.

#### 3.7.18 Time is of the Essence

1. Time is of the essence in the performance of this Contract. Contractor and NCTA will mutually develop and agree to a schedule of implementation, testing, Maintenance, etc. Contractor and Subcontractors will be required to adhere to the Approved schedule.

## 3.7.19 Date and Time Warranty

The Contractor warrants that any Deliverable, whether hardware, firmware, middleware, custom
or commercial software, or internal components, subroutines, and interface therein which
performs any date and/or time data recognition function, calculation, or sequencing, will provide
accurate date/time data and leap year calculations. This warranty shall survive termination or
expiration of the Contract.

#### 3.7.20 Independent Contractors

1. Contractor and its employees, officers and executives, and Subcontractors, if any, shall be independent Contractors and not employees or Agents of the State. This Contract shall not operate as a joint venture, partnership, trust, authority, or any other business relationship.

#### 3.7.21 Transportation

1. Transportation of Deliverables shall be FOB Destination unless otherwise specified in this RFP. Freight, handling, hazardous material charges, and distribution and installation charges shall be included in the total price of each item. Any additional charges shall not be honored for payment unless authorized in writing by NCTA. In cases where parties, other than the Contractor ship materials against this Contract, the shipper shall be instructed to show the purchase order number on all packages and shipping manifests to ensure proper identification and payment of invoices. A complete packing list shall accompany each shipment.

## 3.7.22 **Notices**

1. Any Notices required under this Contract should be delivered to the Contractor or NCTA. Unless otherwise specified in the Solicitation Documents, any Notices shall be delivered in writing by U.S. Mail, Commercial Courier or by hand.

#### 3.7.23 Titles and Headings

1. Titles and Headings in this Contract are used for convenience only and do not define, limit, or proscribe the language of terms identified by such Titles and Headings.

#### 3.7.24 Amendment

1. This Contract may not be amended orally or by performance. Any Amendment must be made in written form and signed by duly authorized representatives of NCTA and Contractor in conformance with Contract requirements.

#### 3.7.25 Taxes

1. The State of North Carolina is exempt from Federal excise taxes and no payment will be made for any personal property taxes levied on the Contractor or for any taxes levied on employee wages. Agencies of the State may have additional exemptions or exclusions for Federal or State taxes. Evidence of such additional exemptions or exclusions may be provided to Contractor by Agencies, as applicable, during the term of this Contract. Applicable State or local sales taxes shall be invoiced as a separate item and not included in the Price Proposal.

#### 3.7.26 Governing Laws, Jurisdiction, and Venue

1. This Contract is made under and shall be governed and construed in accordance with the laws of the State of North Carolina. The place of this Contract or purchase order, its situs and forum,

shall be Wake County, North Carolina, where all matters, whether sounding in contract or in tort, relating to its validity, construction, interpretation, and enforcement shall be determined. Contractor agrees and submits, solely for matters relating to this Contract, to the jurisdiction of the courts of the State of North Carolina and stipulates that Wake County shall be the proper venue for all matters.

2. Except to the extent the provisions of the Contract are clearly inconsistent therewith, the applicable provisions of the Uniform Commercial Code as modified and adopted in North Carolina shall govern this Contract. To the extent the Contract entails both the supply of "goods" and "Services," such shall be deemed "goods" within the meaning of the Uniform Commercial Code, except when deeming such Services as "goods" would result in a clearly unreasonable interpretation.

## 3.7.27 Force Majeure

1. Neither party shall be deemed to be in default of its obligations hereunder if and so long as it is prevented from performing such obligations as a result of events beyond its reasonable control, including without limitation, fire, power failures, any act of war, hostile foreign action, nuclear explosion, riot, strikes or failures or refusals to perform under subcontracts, civil insurrection, earthquake, hurricane, tornado, or other catastrophic natural event or act of God. Force Majeure events shall not otherwise limit NCTA's rights to enforce contracts.

## 3.7.28 Compliance with Laws

1. The Contractor shall comply with all laws, ordinances, codes, rules, regulations, and licensing requirements that are applicable to the conduct of its business, including those of Federal, State, and local agencies having jurisdiction and/or authority.

## 3.7.29 Severability

I. In the event that a court of competent jurisdiction holds that a provision or requirement of this Contract violates any applicable law, each such provision or requirement shall be enforced only to the extent it is not in violation of law or is not otherwise unenforceable and all other provisions and Requirements of this Contract shall remain in full force and effect. All promises, requirement, terms, conditions, provisions, representations, guarantees, and warranties contained herein shall survive the expiration or termination date unless specifically provided otherwise herein, or unless superseded by applicable Federal or State statute, including statutes of repose or limitation.

## 3.7.30 Federal Intellectual Property Bankruptcy Protection Act

1. The Parties agree that NCTA shall be entitled to all rights and benefits of the Federal Intellectual Property Bankruptcy Protection Act, Public Law 100-506, codified at 11 U.S.C. 365(n) and any amendments thereto.

#### 3.7.31 Ineligible Contractors

1. As provided in G.S. § 147-86.59 and G.S. § 147-86.82, the following companies are ineligible to contract with the State of North Carolina or any political subdivision of the State: a) any company identified as engaging in investment activities in Iran, as determined by appearing on the Final Divestment List created by the State Treasurer pursuant to G.S. § 147-86.58, and b) any company identified as engaged in a boycott of Israel as determined by appearing on the List of restricted

companies created by the State Treasurer pursuant to G.S. § 147-86.81. A contract with the State or any of its political subdivisions by any company identified in a) or b) above shall be void ab initio.

## 3.7.32 Availability of Funds

1. Any and all payments to Contractor are expressly contingent upon and subject to the appropriation, allocation and availability of funds to NCTA for the purposes set forth in this Contract. If this Contract is funded in whole or in part by Federal funds, the Agency's performance and payment shall be subject to and contingent upon the continuing availability of said Federal funds for the purposes of the Contract. If the term of this Contract extends into fiscal years subsequent to that in which it is approved, such continuation of the Contract is expressly contingent upon the appropriation, allocation and availability of funds by the N.C. Legislature for the purposes set forth in the Contract. If funds to effect payment are not available, the Agency will provide written notification to Contractor. If the Contract is terminated under this paragraph, Contractor agrees to take back any affected Deliverables and Software not yet delivered under this Contract, terminate any Services supplied to the Agency under this Contract, and relieve NCTA of any further obligation thereof. The State shall remit payment for Deliverables and Services accepted prior to the date of the aforesaid Notice in conformance with the payment terms.

## 3.7.33 E-Verify

 Pursuant to G.S. § 143-133.3, the State shall not enter into a contract unless the awarded Contractor and each of its Subcontractors comply with the E-Verify Requirements of N.C. General Statutes, Chapter 64, Article 2. Contractors are directed to review the foregoing laws. Any awarded Contractor must submit a certification of compliance with E-Verify to the awarding agency, and on a periodic basis thereafter as may be required by the State.

## 3.7.34 Historically Underutilized Businesses

 Pursuant to N.C.G.S. §§ 143-48 and 143-128.4 and any applicable Executive Order, the State of North Carolina and NCTA invites and encourages participation in this procurement process by businesses owned by minorities, women, disabled, disabled business enterprises and non-profit work centers for the blind and severely disabled. Additional information may be found at: http://ncadmin.nc.gov/businesses/hub/.

#### 3.7.35 No Waiver

 Notwithstanding any other language or provision in the Contract, nothing herein is intended nor shall be interpreted as a waiver of any right or remedy otherwise available to NCTA under applicable law. The waiver by NCTA of any right or remedy on any one occasion or instance shall not constitute or be interpreted as a waiver of that or any other right or remedy on any other occasion or instance.

#### 3.7.36 Entire Agreement

1. This RFP and any documents incorporated specifically by reference represent the entire agreement between the parties and supersede all prior oral or written statements or agreements.

This RFP, any addenda hereto, and the Contractor's Proposal Documents are incorporated herein by reference as though set forth verbatim.

2. All promises, Requirements, terms, conditions, provisions, representations, guarantees, and warranties contained herein shall survive the contract expiration or termination date unless specifically provided otherwise herein, or unless superseded by applicable Federal or State statutes of limitation.

## 3.7.37 Sovereign Immunity

 Notwithstanding any other term or provision in the Contract, nothing herein is intended nor shall be interpreted as waiving any claim or defense based on the principle of sovereign immunity or other State or Federal constitutional provision or principle that otherwise would be available to NCTA under applicable law.