# Addendum No. 3

November 3, 2017

Roadside Toll Collection System (RTCS) Request for Proposals (RFP)

Triangle Expressway and Complete 540

**Prospective Respondents: You are hereby notified of the following information in regard to the referenced RFP:**

- Section A - Official log of Proposers' questions and NCTA's responses
- Section B - Official revisions to the RTCS RFP

All other terms, conditions and requirements of the original RFP dated October 10, 2017 remain unchanged unless modified by this addendum, or previous addenda to this RFP.

Note that all changes to requirements are reflected as redlines to Section III Scope of Work and Requirements and also apply to Exhibit D-6, Requirements Conformance Matrix. The Requirements Conformance Matrix will be updated once all questions have been received.

## A. QUESTIONS AND ANSWERS

Following are the answers to questions submitted in response to the above referenced RFP between Addendum 2 (issued October 23, 2017) and November 1, 2017. All of the questions have been listed in the order received by the North Carolina Turnpike Authority (NCTA).

| Proposer Questions | | | **North Carolina Turnpike Authority (NCTA)** | | |
|---|---|---|---|---|---|
| # | Page | Section | Section Description | Proposer Question | NCTA Response |
| | | | | | |
| 1. | N/A | | | In the RTCS RFP for Monroe Expressway / US-74, the requirement for error rate for the Image Review system was listed as 0.05% (or 99.95% accuracy). Is it the intent of NCTA to have the same requirement in the current RFP for Triangle Expressway / C540? | Please see RFP Section III, Sections 6.6.7 and 6.6.8, as well as Section 8.1.1, Table 5 for the performance requirement. |

## B. REVISIONS (Deletions are shown in red text strikeout mode and additions are in red text and underlined)

1. Section I, Table of Contents, page i of ii (2 of 316 in original RFP PDF file) has been revised as follows:

Attachment 1 – Future Project Transactions

Attachment 2 – NCTA TriEx ORT Lanes "As-Built" Drawings

Attachment 2A – NCTA TriEx AVI Retrofit "As-Built" Drawings

Attachment 3 – NCTA TriEx – Veridea Installation Drawings

Attachment 4A – NCTA TriEx Existing Inventory

Attachment 4B – NCTA TriEx ITS Inventory – Equipment Refresh

Attachment 4C – NCTA New ITS Installations for Complete 540 and Morrisville Parkway Interchange

Attachment 5 – NCTA TriEx & C540 ITS Summary

Attachment 6 – NCDOT Roadway Standard Drawing 1725.01

Attachment 7 – State of North Carolina, Statewide Information Security Manual

Attachment 8 – NCTA CSC Back Office System RTCS File Exchanges – ICD (DRAFT)

Attachment 9 – NC License Plate Guidebook (Updated 03-24-14)

Attachment 10 – Responsibility Matrix

Attachment 11 – AET Standard Drawings

Attachment 12 – Communications Schematic

Attachment 13 – C540 ITS and AET Concept Plans

Attachment 14 – Statewide Traffic Operations Center (STOC) Floor Plan

Attachment 15 – Toll Facilities Maintenance Scope of Work

Attachment 16 – Lane Closure Restrictions

Attachment 17 – TriEx As-Built ITS Design Plans

Attachment 18 – ITS Technical Requirements

2. Section I, Section 2.1 Schedule, page 6 of 19 (13 of 316 in original RFP PDF file) has been revised as follows:

**Table I-1 Procurement Schedule**

| Event or Due Date | Date |
|---|---|
| RFP Issued | October 10, 2017 |
| Mandatory Pre-Proposal Scope of Services Meeting<br>Mandatory Triangle Expressway Site Visit | October 24, 2017 (2:00 p.m. to 4:00 p.m. EDT)<br>October 25, 2017 (8:00 a.m. to 12:00 p.m. EDT) |
| Proposer Questions Due | November 13, 2017 (4:00 p.m. E~~D~~ST) |
| NCTA Responses to all Questions Completed | November 28, 2017 |
| Proposals (Technical and Price) Due | December 21, 2017 (4:00 p.m. E~~D~~ST) |
| Notification of Proposers Shortlisted for Oral Presentations | January 19, 2018 |
| Oral Presentations (Proposers to be notified as to the specific schedule within the time period identified) | Week of February 12, 2018 |
| Ranking of Proposers for Negotiations | February 2018 |
| Award of Contract | April 2018 |
| Notice to Proceed | April 2018 |

**3.** Section III, List of Attachments, page vii. of vii. (49 of 316 in original RFP PDF file) has been revised as follows:

Attachment 1 – Future Project Transactions

Attachment 2 – NCTA TriEx ORT Lanes "As-Built" Drawings

Attachment 2A – NCTA TriEx AVI System Retrofit "As-Built" Drawings

Attachment 3 – NCTA TriEx – Veridea Installation Drawings

Attachment 4A – NCTA TriEx Existing Inventory

Attachment 4B – NCTA TriEx ITS Inventory & Equipment Refresh

Attachment 4C – NCTA New ITS Installations for C540 and Morrisville Parkway Interchange

Attachment 5 – NCTA TriEx & C540 ITS Summary

Attachment 6 – NCDOT Roadway Standard Drawing 1725.01

Attachment 7 – State of North Carolina, Statewide Information Security Manual

Attachment 8 – NCTA CSC Back Office System RTCS File Exchanges – ICD (DRAFT)

Attachment 9 – NC License Plate Guidebook (Updated 03-24-14)

Attachment 10 – Responsibility Matrix

Attachment 11 – AET Standard Drawings

Attachment 12 – Communications Schematic

Attachment 13 – C540 ITS and AET Concept Plans

Attachment 14 – Statewide Traffic Operations Center (STOC) Floor Plan

Attachment 15 – Toll Facilities Maintenance Scope of Work

Attachment 16 – Lane Closure Restrictions

Attachment 17 – TriEx As-Built ITS Design Plans

Attachment 18 – NCTA ITS Technical Requirements

**4.** Section III, Section 1.1.3 General Description of Scope of Work, paragraphs 5 through 8 on pages 5 and 6 of 204 (53 and 54 of 316 in original RFP PDF file) has been revised as follows:

For Triangle Expressway, the Contractor shall plan and implement a transition to the RTCS that does not impact revenue collection and minimizes inconvenience to customers. The existing Triangle Expressway AET Lanes are shown in the as-built drawings contained in ***Attachment 2 – NCTA TriEx ORT Lanes "As-Built" Drawings***, ***Attachment 2A – NCTA TriEx AVI System Retrofit "As-Built" Drawings*** and ***Attachment 3 – NCTA TriEx – Veridea Installation Drawings***.

In addition, the NCTA is providing a list of existing equipment and quantities listed in ***Attachment 4A – NCTA TriEx Existing Inventory***. The Contractor shall reuse the existing equipment vault buildings and may reuse the existing computer racks, equipment cabinets, and security cameras. All other existing equipment shall be replaced as listed in ***Attachment 4A*** to meet the Requirements of this Scope of Work and Requirements and all Performance Requirements.

For the Complete 540 Project, the Contractor shall coordinate with the NCTA, the Civil Designer, and the Complete 540 Design Build Team (the "Constructor"), for all toll System construction-related activities anticipated for this RTCS Project. The Contractor shall provide toll System Design specifications to the Constructor and shall be required to review the engineering Design and provide feedback and potential impacts of the Toll System and ITS installation and performance early in the Design process.

The Contractor shall procure, furnish, and install ITS components to meet the Requirements of this Scope of Work and Requirements for TriEx (including Morrisville Parkway Interchange) and C540 as described in detail in ***Attachment 18 – NCTA ITS Technical Requirements***. The Contractor shall provide ~~including~~ new Microwave Vehicle Detectors (MVD), closed circuit television (CCTV) cameras, ~~(~~and Roadway Weather Information System (RWIS) sensors~~, if desired)~~ to replace and upgrade existing ITS equipment on the TriEx and shall procure, furnish, and install ITS infrastructure for the C540 as defined in ***Attachment 4B – NCTA TriEx ITS Inventory & Equipment Refresh, Attachment 4C – NCTA New ITS Installations for C540 and Morrisville Parkway Interchange, and*** ***Attachment 5 – NCTA TriEx & C540 ITS Summary***. The Contractor

shall be responsible for the Maintenance of all ITS elements and Toll Facilities on both Projects.

**5.** Section III, Section 1.2.1.1 Maintainability, Requirement 7, d) on page 7 of 204 (56 of 316 in original RFP PDF file) has been revised as follows:

| | |
|---|---|
| 7 d) | all zone controllers shall be Designed such that they are identical and can be configured to operate through the addition of Hardware pluggable modules and setting of appropriate Software parameters at the specific number of lanes at each site as shown in Attachment 2 – NCTA TriEx ORT Lanes "As-Built" Drawings, Attachment 2A – NCTA TriEx AVI System Retrofit "As-Built" Drawings, and Attachment 3 – NCTA TriEx – Veridea Installation Drawings for TriEx and at each of the mainline Toll Zones for C540; |

**6.** Section III, Section 1.2.5 RTCS Toll Facility and Lane Configurations, Requirement 45 on page 11 of 204 (60 of 316 in original RFP PDF file) has been revised as follows:

| | |
|---|---|
| 45 | The RTCS shall support the lane configurations in ***Attachment 2, Attachment 2A and Attachment 3*** and dimensions detailed below for each type of Toll Facility. |

**7.** Section III, Section 1.2.11.1 Zone Controller Hardware, Requirement 189 on page 28 of 204 (76 of 316 in original RFP PDF file) has been revised as follows:

| | |
|---|---|
| 189 | A fully redundant zone controller shall be Designed, procured, furnished, and installed at each of the Toll Zone as identified in Attachment 2, Attachment 2A and Attachment 3. The zone controller shall be Designed in a redundant configuration where there is a single primary zone controller with a "hot standby" secondary zone controller operating in parallel and capable of assuming processing control in the event the primary unit should fail (automatic failover), without requiring human intervention. |

**8.** Section III, Section 4.2 Installation Plan, Requirement 746, a) on page 90 of 204 (138 of 316 in original RFP PDF file) has been revised as follows:

| | |
|---|---|
| 746 a) | The installation schedule detailing all activities, shifts and resources for the installation of the RTCS and ITS, including third-party, existing system integrator and Constructor activities. Once the baseline schedule is Approved by NCTA, Updates during the installation periods identifying all schedule changes and Work progress in the form of percentage completions shall be submitted to NCTA for Approval. |

**9.** Section III, Section 4.2 Installation Plan, Requirement 746, c) on page 90 of 204 (138 of 316 in original RFP PDF file) has been revised as follows:

| | |
|---|---|
| 746 c) | How the Contractor manages delivery and staging of the RTCS and ITS Equipment to be installed, including any staging, installation and testing performed at the Contractor or third-party facilities and their subsequent delivery and installation at the production sites. |

**10.** Section III, Section 4.3.1 Construction Coordination with Infrastructure Contractors, Requirement 755, a) on page 92 of 204 (140 of 316 in original RFP PDF file) has been revised as follows:

| | |
|---|---|
| 755 a) | provide all required Design and installation drawings, operating Requirements and installation specifications to NCTA and the Constructors for all toll and ITS System Equipment provided; |

**11.** Section III, Section 4.8 Installation Checklist, Requirement 775 on page 96 of 204 (144 of 316 in original RFP PDF file) has been revised as follows:

| | |
|---|---|
| 775 | The Contractor shall develop an installation checklist that tracks the progress and completion of all ITS installation activities; RTCS and RSS installation activities for the RTCS installation; and the primary and secondary RSS facilities installation. |

**12.** Section III, Section 4.12.3 Installation Design and Drawings, Requirement 813 on page 100 of 204 (148 of 316 in original RFP PDF file) has been revised as follows:

| | |
|---|---|
| 813 | The installation Requirements provided by Contractor shall be consistent with those provided in Contractor's Proposal and shall accommodate the Design provided to support the lane configurations listed in ***Attachment 2, Attachment 2A,*** and ***Attachment 3.*** |

**13.** Section III, Section 7.5 Toll Facilities Maintenance, 4th paragraph on page 185 of 204 (233 of 316 in original RFP PDF file) has been revised as follows:

For Triangle Expressway, infrastructure details can be found in Attachment 2: NCTA TriEx ORT Lanes "As-Built" Drawings, Attachment 2A – NCTA TriEx AVI System Retrofit "As-Built" Drawings, and Attachment 3: NCTA TriEx – Veridea Installation Drawings.

**14.** Section IV, Section 1.2 Content of Proposal, E. Proposal Section 3: Approach to Scope of Work and Requirements page 10 or 19 (264 of 316 in original RFP PDF file) has been revised as follows:

19. Discuss the Proposer's technical approach to procuring, furnishing, and installing ITS components and Equipment as specified for TriEx, C540, and Morrisville Parkway Interchange in Section III, Scope of Work and Requirements. Provide an explanation of the benefits of the ITS Equipment being proposed and an explanation of the planned timing of the implementation of the ITS retrofit for TriEx and potential impacts/benefits to ITS Operations and Maintenance.

**15.** Section V, Section 1.11 Contract Documents and Order of Precedence, #4 on page 19 of 39 (296 of 316 original RFP PDF file) has been revised as follows:

4. RFP Section III, Conformed Scope of Work and Requirements, including Attachments 1-1~~7~~8 and Addenda

**16.** Attachment 2A – NCTA TriEx AVI Retrofit "As Built" Drawings has been added and attached to this Addendum 3.

**17.** Attachment 4 – NCTA TriEx Existing Inventory has been replaced in its entirety with the following and attached to this Addendum 3:

- Attachment 4A – NCTA TriEx Existing Inventory
- Attachment 4B – NCTA TriEx ITS Inventory – Equipment Refresh
- Attachment 4C – NCTA New ITS Installations for Complete 540 and Morrisville Parkway Interchange

**18.** Attachment 18 – ITS Technical Requirements has been added and attached to this Addendum 3.

**19.** Exhibit A Project Implementation Schedule has been revised as follows.

| **Exhibit A - Project Implementation Schedule** | | |
|---|---|---|
| **Major Milestone Description** | **Projected Start** | **Projected End** |
| **Notice to Proceed** | ***4/16/2018*** | **--** |
| | | |
| **Project Kickoff Meeting** | ***4/30/2018*** | **--** |
| | | |
| **Project Planning Documentation**<br>(Project Schedule, Project Management Plan, Master Test Plan) | Apr. 2018 | May 2018 |
| | | |
| **System Design (Triangle Expressway (TriEx) and the Complete 540 (C540))** | | |
| Requirements Review / Business Rules Workshops | May 2018 | Jun. 2018 |
| Reports Design Workshops | Jun. 2018 | Jun. 2018 |
| System Detailed Design Review | | Jun. 2018 |
| Bill of Materials | | Jun. 2018 |
| Third Party Hardware and Software Documentation Submitted | | Jun. 2018 |
| Draft System Detailed Design Document (SDDD) Approved | | Jul. 2018 |
| Final System Detailed Design Document (SDDD) Submitted | | Aug. 2018 |
| RTCS Installation Design and Documentation Package Approved | | Aug. 2018 |
| | | |
| **Intelligent Transportation System (ITS) Implementation** | | |
| Triangle Expressway ITS Equipment Refresh | Jul. 2018 | Dec. 2018 |
| Morrisville Parkway Interchange ITS Implementation | Aug. 2019 | Sep. 2019 |
| Complete 540 ITS Implementation | Feb. 2021 | Sep. 2022 |
| | | |
| **System Development, Installation and Test (TriEx)** | | |
| Software Development | Jul. 2018 | Sep. 2018 |
| System Formal Demonstration | | Sep. 2018 |
| System HW & SW Procurement | Aug. 2018 | Oct. 2018 |
| Factory Acceptance Test (FAT) | Oct. 2018 | Oct. 2018 |
| Final Installation Plan Approved | | Oct. 2018 |
| Installation of Triangle Expressway - First Plaza | Oct 29, 2018 | Nov 16, 2018 |
| Onsite Installation Test (OIT) | Nov. 2018 | Dec. 2018 |
| NCTA Back Office Interface Test | | Dec. 2018 |
| Installation and Commissioning Test | Dec. 2018 | Dec. 2018 |
| Maintenance Plan | | Dec. 2018 |

| Exhibit A - Project Implementation Schedule | | |
|---|---|---|
| **Major Milestone Description** | **Projected Start** | **Projected End** |
| Training Complete | | Dec. 2018 |
| Go-Live – First Plaza | | Dec. 2018 |
| Remaining Installations on Triangle Expressway: | Jan. 2019 | Jun. 2019 |
| Triangle Expressway - Second Plaza | Jan. 2, 2019 | Jan. 18, 2019 |
| → Installation and Commissioning Test | | Jan. 2019 |
| Triangle Expressway - Third Plaza | Jan. 2019 | Feb. 2019 |
| → Installation and Commissioning Test | | Feb. 2019 |
| Triangle Expressway - Fourth Plaza | Feb. 2019 | Feb. 2019 |
| → Installation and Commissioning Test | | Mar. 2019 |
| Triangle Expressway - Fifth Plaza | Mar. 2019 | Mar. 2019 |
| → Installation and Commissioning Test | | Mar. 2019 |
| Triangle Expressway - Sixth Plaza | Mar, 2019 | Apr. 2019 |
| → Installation and Commissioning Test | | Apr. 2019 |
| Triangle Expressway - Seventh Plaza | Apr. 2019 | May 2019 |
| → Installation and Commissioning Test | | May 2019 |
| Triangle Expressway – Eighth Plaza | May 2019 | May 2019 |
| → Installation and Commissioning Test | | May 2019 |
| **Triangle Expressway Go-Live Complete** | | ***6/15/2019*** |
| | | |
| Installation of Morrisville Parkway and Interchange | Aug. 2019 | Aug 2019 |
| → Installation and Commissioning Test | | Sep. 2019 |
| **Morrisville Parkway and Interchange Go-Live Complete** | | ***10/1/2019*** |
| **Final Testing and Phase Closeout (TriEx)** | | |
| Formal Operational and Acceptance Testing | ***6/15/2019*** | 10/15/2019 |
| As-Built System Detailed Design Document (SDDD) Approved | | Oct. 2019 |
| As-Built Drawing Package Approved | | Oct. 2019 |
| System Operations / Acceptance (Start of Maintenance Phase for TriEx) | | *Oct. 2019* |
| | | |
| **System Development, Installation and Test (Complete 540)** | | |
| Software Development | Jan. 2020 | Mar. 2020 |
| System Formal Demonstration | | Apr. 2020 |
| System HW & SW Procurement | May 2020 | Oct. 2020 |
| Factory Acceptance Test (FAT) | Nov. 2020 | Dec. 2020 |
| Final Installation Plan Approved | | Jan. 2021 |
| Installation of Complete 540 - First Toll Location | Feb. 2021 | Feb. 2021 |
| Onsite Installation Test (OIT) | Mar. 2021 | Mar. 2021 |
| NCTA CSC Back Office Interface Test | | Apr. 2021 |
| Installation and Commissioning Tests (*Remaining C540 Toll Locations*) | Apr. 2021 | Sep. 2022 |
| Maintenance Plan | | Oct. 2021 |
| Training Complete | | Nov. 2021 |
| **Complete 540 Go-Live (All Segments)** | | ***2022*** |
| | | |
| **Final Testing and Phase Closeout (C540)** | | |
| Formal Operational and Acceptance Testing | ***9/1/2022*** | 11/15/2022 |
| As-Built System Detailed Design Document (SDDD) Approved | | Oct. 2022 |
| As-Built Drawing Package Approved | | Oct. 2022 |
| System Operations / Acceptance (Start of Maintenance Phase for C540) | | Nov. 2022 |

**20.** Exhibit C Price Proposal Instructions, Section 1 General Instructions, #4, bullet 12 on page 1 of 19 has been revised as follows:

- Intelligent Transportation System (ITS) Implementation Cost – Sheet 12

**21.** Exhibit C Price Proposal Instructions, Section 2 Instructions on Completing the Price Proposal Forms, #1 on page 2 of 19 has been revised as follows:

1. There are fifty-~~one~~ two (~~55~~52) Price Proposal Forms, as detailed above, including nine pricing summary sheets (Sheets 1, 2, 3, 4, 5, 6, 7, 8 and 9) and associated Backup information on Backup sheets for each pricing sheet. Backup sheets for each summary sheet are labeled to identify the corresponding summary pricing sheet; for example, Sheet 2-1 is a Backup sheet to pricing Sheet 2. Backup sheets are located following summary sheets 1 through 9. The Estimated Lost Revenue Sheet 10-1 and Additional Services Rates Sheet 11-1 are standalone sheets and do not require summary sheets.
2. Table 1 below summarizes the ~~51~~ 52 Price Proposal forms that shall be completed by all Proposers. Each form is located on a unique sheet in an Excel workbook. The table provides the following information for each form:

**22.** Exhibit C Price Proposal Instructions, Section 2 Instructions on Completing the Price Proposal Forms, #2, Table 1 – Price Proposal Form Summary on page 2 of 19 has been revised as follows:

**Table 1 – Price Proposal Form Summary**

| Sheet Number | Sheet Title |
|---|---|
| 1 | NCTA Triangle Expressway and Complete 540 RTCS Project Summary |
| 2 | Roadside System Cost by Roadway |
| 2-1 | Backup - Ramp 1: Roadside System Cost Schedule |
| 2-1a | Backup - Ramp 1: Roadside System - Staff and Position Classifications with Rates |
| 2-2 | Backup - Ramp 2: Roadside System Cost Schedule |
| 2-2a | Backup - Ramp 2: Roadside System - Staff and Position Classifications with Rates |
| 2-3 | Backup - Ramp 3: Roadside System Cost Schedule |
| 2-3a | Backup - Ramp 3: Roadside System - Staff and Position Classifications with Rates |
| 2-4 | Backup - AET: Roadside System Cost Schedule |
| 2-4a | Backup - AET: Roadside System - Staff and Position Classifications with Rates |
| 2-5 | Backup - Facility Server by Location Cost Schedule |
| 3 | Roadway Support System Cost |
| 3-1 | Backup - Triangle Expressway: Roadway Support System Cost Schedule |
| 3-1a | Backup - Triangle Expressway: Roadway Support System - Staff and Position Classifications with Rates |
| 3-2 | Backup - Complete 540: Roadway Support System Cost Schedule |
| 3-2a | Backup - Complete 540: Roadway Support System - Staff and Position Classifications with Rates |
| 3-3 | Backup - Roadside System and Roadway Support System Initial Spare Parts and Equipment Cost |
| 4 | Base Contract and Optional Extensions - Roadside System Hardware Maintenance and Software Support Services Cost |
| 4-1 | Backup - Base Contract and Optional Extensions - Roadside System Hardware |

| Sheet Number | Sheet Title |
|---|---|
| | Maintenance and Software Support Services Schedule |
| 4-2 | Backup - Base Contract and Optional Extensions - Triangle Expressway Roadside System Hardware Maintenance and Software Support Services - Labor and Other Direct Cost Items by Month |
| 4-2a | Backup - Base Contract and Optional Extensions - Triangle Expressway Roadside System Hardware Maintenance and Software Support Services - Staff and Position Classifications with Rates |
| 4-3 | Backup - Base Contract and Optional Extensions - Morrisville Parkway Interchange Roadside System Hardware Maintenance and Software Support Services - Labor and Other Direct Cost Items by Month |
| 4-3a | Backup - Base Contract and Optional Extensions - Morrisville Parkway Interchange Roadside System Hardware Maintenance and Software Support Services - Staff and Position Classifications with Rates |
| 4-4 | Backup - Base Contract and Optional Extensions - Complete 540 Roadside System Hardware Maintenance and Software Support Services - Labor and Other Direct Cost Items by Month |
| 4-4a | Backup - Base Contract and Optional Extensions - Complete 540 Roadside System Hardware Maintenance and Software Support Services - Staff and Position Classifications with Rates |
| 5 | Base Contract and Optional Extensions - Roadway Support System Maintenance and Software Support Services Cost |
| 5-1 | Backup - Base Contract and Optional Extensions - Triangle Expressway Roadway Support System Maintenance and Software Support Services - Labor and Other Direct Cost Items by Month |
| 5-1a | Backup - Base Contract and Optional Extensions - Triangle Expressway Roadway Support System Maintenance and Software Support Services - Staff and Position Classifications with Rates |
| 5-2 | Backup - Base Contract and Optional Extensions - Complete 540 Roadway Support System Maintenance and Software Support Services - Labor and Other Direct Cost Items by Month |
| 5-2a | Backup - Base Contract and Optional Extensions - Complete 540 Roadway Support System Maintenance and Software Support Services - Staff and Position Classifications with Rates |
| 6 | Base Contract and Optional Extensions - Intelligent Transportation System (ITS) Maintenance Cost |
| 6-1 | Backup - Base Contract and Optional Extensions - Triangle Expressway, Morrisville Parkway Interchange, and Complete 540 Intelligent Transportation System (ITS) Maintenance |
| 6-2 | Backup - Base Contract and Optional Extensions - Triangle Expressway ITS Maintenance Cost Schedule Per Device - Labor and Other Direct Cost Items by Month |
| 6-3 | Backup - Base Contract and Optional Extensions - Morrisville Parkway Interchange ITS Maintenance Cost Schedule Per Device – Labor and Other Direct Cost Items by Month |
| 6-4 | Backup - Base Contract and Optional Extensions - Complete 540 ITS Maintenance Cost Schedule Per Device - Labor and Other Direct Cost Items by Month |
| 7 | Base Contract and Optional Extensions Toll Facilities Maintenance Cost |
| 7-1 | Backup - Base Contract and Optional Extensions - Triangle Expressway, Morrisville Parkway Interchange, and Complete 540 Toll Facilities Maintenance Cost |

| Sheet Number | Sheet Title |
|---|---|
| 7-2 | Backup - Base Contract and Optional Extensions - Triangle Expressway Toll Facilities Maintenance - Labor and Other Direct Cost Items by Month |
| 7-3 | Backup - Base Contract and Optional Extensions - Morrisville Parkway Interchange Toll Facilities Maintenance - Labor and Other Direct Cost Items by Month |
| 7-4 | Backup - Base Contract and Optional Extensions - Complete 540 Toll Facilities Maintenance - Labor and Other Direct Cost Items by Month |
| 8 | Base Contract and Optional Extensions - Transaction Processing Operations Cost |
| 8-1 | Backup - Base Contract and Optional Extensions - Triangle Expressway AVI Transaction Processing Costs Including all Labor and Other Direct Cost Items per Transaction |
| 8-2 | Backup - Base Contract and Optional Extensions - Complete 540 AVI Transaction Processing Costs Including all Labor and Other Direct Cost Items per Transaction |
| 8-3 | Backup - Base Contract and Optional Extensions - Triangle Expressway Image-based Transaction Processing Costs Including all Labor and Other Direct Cost Items per Image-based Transaction |
| 8-4 | Backup - Base Contract and Optional Extensions - Complete 540 Image-based Transaction Processing Costs Including all Labor and Other Direct Cost Items per Image-based Transaction |
| 9 | Future Roadside AET Zone System Implementation and Maintenance Cost |
| 9-1 | Backup - Future Zone Types Roadside System Cost Schedule Per Zone |
| 9-2 | Backup - Future Roadside System Hardware Maintenance and Software Support Services - Labor and Other Direct Cost Items by Month Per Zone Type |
| 10-1 | Estimated Lost Revenue |
| 11-1 | Additional Services Rates (2018 Values) |
| 12 | Intelligent Transportation System (ITS) Implementation Cost |
| Exhibit B | Payment Schedule |

**23.** Exhibit C Price Proposal Instructions, Section 3 Total Project Costs on page 5 of 19 has been revised as follows:

The Proposer's proposed total price shall be the aggregate of all costs included in Sheet 1. Sheet 1 will automatically roll-up and present the totals from Sheets 2 through Sheet 8, and Sheet 12. These costs will be totaled and presented in the Grand Total Cost column in the line entitled Total Implementation, Operations and Maintenance Cost including Optional Extension Phases.

**24.** Exhibit C Price Proposal Instructions, Section 14 Completion of Intelligent Transportation System (ITS) Implementation Cost – Sheet 12 on page 17 of 19 has been added as follows:

## 14. COMPLETION OF INTELLIGENT TRANSPORTATION SYSTEM (ITS) IMPLEMENTATION COST – SHEET 12

The Proposer's total price for the Intelligent Transportation System (ITS) portion of the Implementation Phase shall be the aggregate of all costs included in Sheet 12 which

covers all costs associated with the ITS portion of the Work for the Triangle Expressway, Complete 540, and Morrisville Parkway Interchange.

The costs for Sheet 12 shall include (without limitation) all Equipment, supplies, Software, parts and materials, overhead, burden, profit, taxes, duties, fees, Contractor-acquired permits, licenses, warranties, and other items necessary to meet the Contractor contractual requirements associated with the ITS portion of the System. No price escalation will be allowed above the costs provided on the Price Proposal Sheets to complete the Work except as set forth in Section 15.

The prices on Sheet 12 shall not include charges and costs associated with the Roadside System, Roadway Support System, or the Operations and Maintenance Phase. These costs shall be provided on separate Price Proposal Sheets as described below.

To complete Sheet 12 Proposers should do the following:

1. Sheets 12. The description for each cost component item is provided in the 1st column (A) as required for the implementation for each facility component (Items 1 - 4). Moving to the right in the 2nd column (B), the quantity for each item is already populated based on the anticipated need for each facility. In the 3rd column (C) enter the unit costs for each item. The total item costs will be calculated automatically. Moving to the right, in the 5th column (E), enter any labor costs associated with each of the price elements. The costs for each price element will then automatically be calculated and the summed total will be shown in the appropriate line item on Sheet 1. NOTE: The cost of all surge suppression, the RPU, testing, and all supporting hardware and accessories shall be included in the cost per component item.

The addition of a new Section 14 has updated the following numbered sections:
~~14~~ 15 Completion of Payment Schedule – Exhibit B
~~15~~ 16 Completion of Project Summary – Sheet 1
~~16~~ 17 Cost Escalation

**25.** Exhibit C Price Proposal Instructions, Section 16 Completion of Project Summary – Sheet 1 on page 18 of 19 has been revised as follows:

Sheet 1 will automatically summarize the costs and pricing detailed in Sheets 2 through 8, and Sheet 12. These costs will be totaled and presented in the line entitled Total Implementation, Operations and Maintenance Cost including Optional Extension Phases.

**26.** Form D-7 Price Proposal Forms has been updated in its entirety and "paper clipped" to the NCTA RTCS RFP file for ease of completion.