

Addendum No. 3

September 28, 2016

Automatic Vehicle Identification (AVI) Readers and Transponders

Request for Proposals (RFP)

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 AVI Readers and Transponders RFP

All other terms, conditions and requirements of the original RFP dated August 30, 2016 remain unchanged unless modified by this addendum, or previous addenda to this RFP.

A. QUESTIONS AND ANSWERS

Following are the answers to questions submitted in response to the above referenced RFP between Addendum 2 (issued September 16, 2016) and September 21, 2016. 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
4.	2	Addendum No. 2	Answer to question #3	<p>In Addendum No. 2, NCTA indicates that transponders shall be compliant with the most recent ISO standard used by OCS. In this response, NCTA goes on to say that this version of the standard is ISO/IEC 18000-63:2013.</p> <p>The responder would like to mention that version 1.0.7 of the OCS Interoperability Requirements and Certification Framework document specifies the following version of the ISO standard: ISO 18000-6:2010</p> <p>If NCTA requires that transponders are certified against ISO 18000-63:2013, then most, if not all, transponders that are currently certified by Omni Air would be excluded from responding to this RFP. Is it the intention of NCTA to exclude transponders that have been previously certified by OmniAir? Or, can any previously certified OmniAir transponder product be submitted in response to this RFP?</p>	It is not the intention of NCTA to exclude transponders which were previously certified by OmniAir. See Revision 1 in B, Revisions, below.
5.	45	4.3.1 (286)	Form Factor: Dimensions	Can NCTA tolerate any increase in either the width or the height of the transponder from what is specified in this section?	The width and height of the transponders do not need to match the NC Quick Pass transponders precisely. See Revision 2 in B, Revisions, below.

Proposer Questions		North Carolina Turnpike Authority (NCTA)			
#	Page	Section	Section Description	Proposer Question	NCTA Response
6.	24 of 53	III	2.7 Maintenance and Support	Section 2.7 requests vendor proposals include onsite Preventive, Predictive and Corrective Maintenance. It is assumed that the Integrator will be responsible for the direct, onsite maintenance of all tolling equipment in order to maintain control over the operations of the entire system. Please confirm NCTA requires the RFID supplier provide these onsite resources and services in addition to remote phone based Technical Support.	While the RTCS Contractor is responsible for direct, onsite maintenance, the Contractor is responsible for installation support and maintenance support. Some activities described under Section 2.7, such as RF site surveys and lane tuning, cannot be performed remotely. Contractor is also required to provide onsite support in the event that remote support cannot resolve a maintenance issue.
7.	17 of 53	III	2.4.7 Reliability and Availability	Section 2.4.7 requires a repair time for AVI Reader of 30 minutes. In the unlikely event of a reader failure, the act of removing, replacing, reprogramming and testing a failed reader could exceed this requirement depending on service response time, weather, and other factors. This requirement dictates a second, standby reader as a warm standby in every location with a means to switch between them. Please confirm this redundant design is the desired implementation.	Section 2.4.7 specifies a Mean Time To Repair (MTTR) which is based on all corrective maintenance activity, not specifically a repair time for a total reader failure.

Proposer Questions			North Carolina Turnpike Authority (NCTA)		
#	Page	Section	Section Description	Proposer Question	NCTA Response
8.	22 of 22	IV	2.2 Price Proposal Content and Format	Are proposers permitted to submit two price proposals for a single category, in order to reflect two configuration options that NCTA might consider? If so, must they be bound separately?	<p>Proposers may submit more than one Technical Proposal with a corresponding Price Proposal per Category. If a Proposer submits multiple Proposals for one Category, the Proposer shall separately number each Proposal. For example, Category A: Technical Proposal I and Category A: Price Proposal I. Each separate Technical and Price Proposal shall be packaged and sealed as required in the RFP.</p> <p>See Revision 3 in B, Revisions, below.</p>
9.	12 of 53	III	2.2 Hardware Requirements	Item 12 indicates that the contractor should provide an enclosure. However, item 21 seems to imply that the enclosure is the responsibility of the RCTS contractor and that bidders consult on that enclosure. To what extent is the bidder responsible for providing an enclosure or other roadside mounting of equipment? In other words, Is the contractor or RTCS vendor anticipated to provide road side cabinet for equipment installation at toll zone? Or alternatively, is a separate cabinet for AVI equipment desired and/or preferred?	The Contractor is responsible for providing the roadside cabinet for the AVI Reader. The Contractor is required to consult with the RTCS Contractor to ensure that the cabinet is able to support any additional equipment required to integrate the AVI Reader with the RTCS, for example a network switch or network serial hub.

Proposer Questions			North Carolina Turnpike Authority (NCTA)		
#	Page	Section	Section Description	Proposer Question	NCTA Response
10.	12 of 53	III	2.2 Hardware Requirements	Item 14 requires that enclosures “shall be constructed of a AISI Type 316L grade stainless steel or an NCTA Approved equal.” What are the criteria for approving an equal? What would NCTA consider equal to AISI Type 316L grade stainless steel?	The intent of this requirement is that Enclosures and fittings shall be constructed of AISI Type 316L grade stainless steel where possible. If the Contractor is not able to meet this requirement for all Enclosures and fittings, then NCTA will consider proposed alternatives which meet the other requirements for Enclosures.
11.	12 of 53	III	2.2 Hardware Requirements	Item 17 indicates that “Antennas shall be rated NEMA 6P or equivalent.” Is a vendor statement of suitability for outdoor installation considered equivalent?	A vendor statement of suitability for outdoor installation is not sufficient. However, a vendor may conduct their own testing, or have a third party perform the testing, and certify that the antenna has passed NEMA 6P compliance testing according to NEMA 250-1997 or later standard.
12.	14 of 53	III	2.3.2 Lane Coverage (questions also applies to Attachment 5, US-70 Express Lanes)	Separation between reversible lanes and general purpose traffic lanes may be insufficient to preclude cross-lane reads. Is NCTA open to revisions to gantry design to allow mounting of additional antennas, or is the contractor limited to Express Lane antenna configuration as shown in attachments?	Length of Toll Gantry for the US-74 Express Lanes shown is conceptual as final design for the Toll Gantry has not been completed. Actual length to be determined based on AVI Contractor and RTCS Contractor designs. Additional Antennas may be mounted, if required. See Revision 4 in B, Revisions, below.

Proposer Questions			North Carolina Turnpike Authority (NCTA)		
#	Page	Section	Section Description	Proposer Question	NCTA Response
13.	16 of 53	III	2.4.5 Lane Identification Accuracy	Item 59 cites a function of the lane system; the AVI reader may not be solely responsible for this capability. Use of multiple readers in plaza requires use of higher-level intelligence to integrate all available information. That said, would NCTA consider removing this requirement?	No, this requirement will not be removed. The requirement applies equally to installations with single or multiple AVI Readers in a toll zone. If the AVI Reader does not perform lane assignment internally, the AVI Reader(s) are required to provide sufficient data to the RTCS system for it to accurately assign the transponder to a lane, such as handshake counts or read counts for each antenna on which a transponder was read.
14.	17 of 53	III	2.4.6 Conditions for performance requirements	“Vehicles traveling up to 130 miles per hour” is an unusual standard for reader accuracy. Would NCTA consider changing this requirement to 100 MPH?	Related requirements will be modified to 100 miles per hour. See Revision 5 in B, Revisions, below.
15.	17 of 53	III	2.4.7 Reliability and Availability	Item 64 calls for a “design Life Cycle of not less than 10 years.” What is NCTA’s definition of “Design Life Cycle”?	The intent of this requirement is that the AVI Reader shall have a design lifetime of not less than 10 years and continue to be supported for not less than 10 years.

Proposer Questions			North Carolina Turnpike Authority (NCTA)		
#	Page	Section	Section Description	Proposer Question	NCTA Response
16.	18 of 53	III	2.5.1 E-ZPass Group Equipment Certification	<p>Item 67 seems to state that <i>in lieu of</i> E-ZPass approval, a contractor may complete comparable testing within 90 days of contract award, provided that testing satisfies NCTA. Is this correct?</p> <p>Will NCTA accept an alternative to E-ZPass approval?</p> <p>Will E-ZPass approval be required by some later date?</p>	<p>No. Requirement 67 requires that Contractor perform the testing required to obtain E-ZPass Group Equipment Certification as specified in Attachments 6 and 8. No other testing will be accepted.</p> <p>No.</p> <p>The test results will be submitted to the E-ZPass Group as part of the approval process. Since Contractor has no control over the E-ZPass Group's timeline for approval, NCTA did not wish to place a requirement on Contractor to obtain final approval within a set period of time.</p>
17.	18 of 53	III	2.6.1 Factory Acceptance Testing	When will the contractor FAT be conducted? Before or after the contract award?	Please refer to Exhibit A, Category A – Readers.
18.	4	Attachment 6	EZPass Group Certification Test Scripts for ORT	Sec.2.2: Is there a specific test facility/test track designated for execution of these tests?	The test track is to be provided by the Contractor.
19.	19 of 53	III	2.6.1.1 General FAT Requirements	Item 75 lists “lane identification accuracy” as a factor that the FAT should validate. However, this is a function of the lane system, and may not solely be dependent on the AVI reader. Will NCTA revise this requirement accordingly?	See response to Question 13.

Proposer Questions			North Carolina Turnpike Authority (NCTA)		
#	Page	Section	Section Description	Proposer Question	NCTA Response
20.	21 of 53	III	2.6.2 RTCS Factory Acceptance Test Support	Item 86 lists that “contractor shall provide onsite and remote technical support to the RTCS Contractor as needed.” It is not typical for the equipment supplier to provide direct maintenance. Why does NCTA desire maintenance services from the equipment supplier rather than the solution integrator?	Requirement 86 concerns technical support for the RTCS FAT. While the RTCS Contractor is responsible for the test site, the Contractor is responsible for some preliminary activities such as RF site surveys and lane tuning, which cannot be performed remotely. The Contractor is also required to provide onsite support in the event that remote support cannot resolve a maintenance issue. The scheduling constraints for FAT warrant an onsite presence by the Contractor.
21.	24 of 53	III	2.7.4.1	Is it true that the contractor is expected to submit a preventative maintenance plan, but that contractor will not be the one to execute it?	Yes.
22.	27 of 53	III	2.7.5.2 and 2.7.5.3	Items 139 and 143 appear to be contradictory. Which entity is responsible for, controls, and maintains the spare parts inventory?	The RTCS Contractor controls the spare parts inventory. The Contractor is responsible for supplying spare parts to the RTCS Contractor to maintain required inventory levels. See Revision 6 in B, Revisions, below.

Proposer Questions			North Carolina Turnpike Authority (NCTA)		
#	Page	Section	Section Description	Proposer Question	NCTA Response
23.	27 of 53	III	2.7.5.4	<p>Regarding item 149, would NCTA be open to repaired parts? Under some circumstances, repair is more cost effective than replacement.</p> <p>Items 146 through 148 seem to allow for repair, but item 149 does not. Can NCTA please clarify its intent?</p>	<p>Yes, NCTA is open to repaired parts.</p> <p>See Revision 7 in B, Revisions, below.</p>
24.	5 of 22	IV	Table: Category A - Readers	<p>The table on page 5 reads “Include details on the proposed Reader and Antenna configuration for each Toll Facility indicated.” Please confirm that contractor responses require design for all installations for all installations and for each toll facility.</p>	<p>Preliminary designs are required for one representative Toll Zone on each roadway.</p> <p>See Revision 8 in B, Revisions, below.</p>
25.	1 of 4	Exhibit A	Project Schedule	<p>Question: Should end date for Maintenance and Repair Manual, Interface Control Document, and Operations Manual be January 2018?</p>	<p>Start date has been corrected to December of 2016.</p> <p>See Revision 9 in B, Revisions, below.</p>
26.	I	Attachment 7	Electronic Toll Collection Equipment Test Scripts for Traditional Plaza Toll Facilities	<p>This appears to be a transponder focused test. Please confirm that Category A solutions do not need to execute these tests.</p>	<p>Confirmed.</p>
27.	3	Attachment 6	EZPass Group Certification Test Scripts for ORT	<p>Section 1.3.1 indicates that minimum write performance is listed at 98%, but the RFP indicates 99.8%. Which is the requirement?</p>	<p>Attachment 6 specifies E-ZPass Group Equipment Certification requirements. The RFP requirement is 99.8%.</p>

Proposer Questions			North Carolina Turnpike Authority (NCTA)		
#	Page	Section	Section Description	Proposer Question	NCTA Response
28.	4	Attachment 6	EZPass Group Certification Test Scripts for ORT	Sec.2.1: Lane assignment and proper reporting is a function of both reader and lane system. Is this test simply looking to validate correct antenna association?	Yes.
29.	1	Attachment 11	Triangle Expressway As-Built Drawings	Is the contractor allowed to modify placement of antennas in gantry?	The Contractor is allowed to modify the placement of antennas on the gantry. However, NCTA prefers a solution that minimizes any impacts to the structural properties of the gantry or to the RTCS design as represented in Attachment 11. NCTA will take into consideration any such impacts in its evaluation of the Proposed design.

Proposer Questions			North Carolina Turnpike Authority (NCTA)		
#	Page	Section	Section Description	Proposer Question	NCTA Response
30.	55	2.2	<p>"NEMA 6P, Sect 2.2 (Hardware Requirements) Item 17, PDF page 55 of 191 in NCTA_AVI_Request_For_Proposal_2016.pdf</p> <p>Category A - §2.2 #17 (Physical Requirement) Antenna NEMA6P Requirements"</p> <p>17 The Antennas shall be rated NEMA 6P or equivalent."</p> <p>§2.2 – 17) (Hardware Requirements) states "The Antennas shall be rated NEMA6P or equivalent". "</p>	<p>"Please change requirement 17 from ""NEMA 6P"" to ""NEMA 6 or IP66"". NEMA 6 and IP66 address "entry of water during occasional temporary submersion at a limited depth"</p> <p>Otherwise, please provide an explanation for the purpose of NEMA 6P requirement to address "entry of water during prolonged submersion at a limited depth".</p>	<p>Requirement 17 will not be changed.</p> <p>The reason for specifying NEMA 6P rather than 6 is that NEMA 6P enclosures are required to provide protection against corrosion which NEMA 6 enclosures are not.</p>

Proposer Questions		North Carolina Turnpike Authority (NCTA)			
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31.	49	1.2.2.1	<p>AVI antenna mounting locations, Section 1.2.2.1 (Monroe Expressway), PDF page 49 of 191 in NCTA_AVI_Request_For_Proposal_2016.pdf</p> <p>The Monroe Expressway is a greenfield AET Project and will include the following:</p> <p>... • Dual-gantry design providing for a 50-foot separation ..."</p>	<p>Please clarify the presence of an Integrator-supplied substructure on one of the gantries, as shown for the Monroe Expressway on PDF page 102 of 280 in NCTA_AVI_RFP_2016_Attachments1to12.pdf. Please confirm the vendors are only required to mount the AVI antennas on one gantry.</p>	<p>PDF Page 102 of 260 in NCTA_AVI_RFP_2016_Attachments1to12.pdf is a drawing of a reversible lanes gantry on the US 74 Express Lanes, not the Monroe Expressway.</p> <p>The Monroe Expressway will include dual gantries. AVI antennas will be installed on one gantry of each pair.</p>
32.		2.1.1	<p>Category A - §2.1.1 #4 (Physical Requirement) Reader Cabinet</p> <p>§2.1.1 – 4) (Physical Requirements) states "Cabinets and enclosures shall be equipped with locks controlled by proximity card readers with key cylinder backup."</p>	<p>Please clarify if the vendor is providing the proximity programming? Who is programming and distributing the proximity card readers and key cylinder backup?</p>	<p>The RTCS Contractor is responsible for maintaining the security system, including programming and distributing proximity cards. Installation and programming of the proximity card readers will be performed by the RTCS Contractor.</p> <p>Further details will be finalized during discussions between the Contractor and the RTCS Contractor as required in Section 2.1.1 Requirement 5.</p> <p>See Revision 10 in B, Revisions, below.</p>

Proposer Questions		North Carolina Turnpike Authority (NCTA)			
#	Page	Section	Section Description	Proposer Question	NCTA Response
33.		2.1.1	<p>Category A - §2.1.1 #5 (Physical Requirement)</p> <p>Cabinet Access Control §2.1.1 – 5) (Physical Requirements) states “Contractor shall coordinate with the RTCS Contractor to ensure cabinet and enclosure locking mechanisms and proximity cards are compatible with the RTCS Access Control and Security Monitoring System (ASCSMS).”</p>	<p>"Do the locking mechanisms need to be the same as currently on the roadway and the same key as RTCS Contractor currently has or can the new supplied equipment have a different locking mechanism model and key, providing it is compatible?</p> <p>Please provide further details on the current RTCS Access Control and Security Monitoring System (make, model, features, cut sheets of the components that make up the current system)?"</p>	<p>The proximity card reader system must be compatible with the RTCS Access Control and Security Monitoring System (ASCSMS) and the RTCS proximity cards. The locking mechanisms and keys are not required to be the same.</p> <p>The Triangle Expressway AVI cabinets currently have EMKA locking systems installed. While NCTA prefers to keep to a single standard for locks, other models would be acceptable so long as they are compatible with the eMerge 5000 system and proximity cards, and master keys are provided for the cylinder locks. The roadside cabinets and associated locking mechanisms for the US-74 Express Lanes and Monroe Expressway have not yet been finalized.</p> <p>Further details and specific compatibility requirements will be finalized during discussions between the Contractor and the RTCS Contractor as required in Section 2.1.1 Requirement 5.</p>

Proposer Questions			North Carolina Turnpike Authority (NCTA)		
#	Page	Section	Section Description	Proposer Question	NCTA Response
34.		2.3.1	Tag reporting 2.3.1	<p>#26 requires that the Reader shall begin to report the Transponder approximately 3 feet before the leading edge of the entry loop and continue reporting within the next approximate 10 feet. Attachment 6 2.1 requires the OBU must be reported only once and only to a single lane.</p> <p>These requirements seem to be in conflict, please clarify?</p>	<p>The intent of Requirement 26 is that the AVI Reader begin accumulating read counts or handshakes with the Transponder approximately 3 feet before the leading edge of the entry loop and continue doing so within the next approximate 10 feet.</p> <p>The intent of Attachment 6, Section 2.1, is for AVI Readers that perform internal voting. For AVI Readers that do not support internal voting, the AVI Readers must provide sufficient information so as to allow for accurate antenna assignment to be performed.</p>
35.			Exhibit D-07 Price Proposal Category A, Sheet A-1-5	Should bidders include the cost of Spares Replacement in their Monthly Maintenance Price or will these costs be covered by NCTA and therefore should Not be included in the pricing table?	<p>The Monthly Maintenance Price must cover all Spares Replacement.</p> <p>See Section V, Section 1.6.1 of the RFP.</p>
36.			Exhibit D-07 Price Proposal Category A	Will all Maintenance of Traffic (MOT) costs both during the Installation and Maintenance (both corrective & preventative maintenance) Phases of the contract be covered by NCTA and/or the RCTS Contractor if needed and therefore the Costs for MOT should Not be included in pricing tables?	MOT costs should not be included in the Price Proposal Forms. MOT will be provided by others.

Proposer Questions			North Carolina Turnpike Authority (NCTA)		
#	Page	Section	Section Description	Proposer Question	NCTA Response
37.			Exhibit D-07 Price Proposal Category A, Sheet A-1-5:	Will Tier-1 & Tier-2 Preventive Maintenance Activities (on-site activities such as cleaning of AVI Reader components) be performed by the RCTS contractor and therefore Preventive Maintenance should Not be included in the pricing tables?	These types of activities will be performed by the RTCS Contractor and should not be included in the Price Proposal Forms.
38.	Various	various	1.2 Content of Technical Proposal; Table IV-I Proposal Page Limitations, page 1 and 2 of 22; page 15 - 17 of 22	<p>With regard to Section 3: Approach to Project Plan and Implementation and Section 4: Approach to Maintenance; both are marked N/A under the Proposal Section to be Completed by a Propoers Categories B TDM Transponders and C Local Transponders (each) Column. However, pages 15-17 cite different items as n/a or require a response. For example item 1. General on page 15 does require a response to this section for Categories B and C; however, 2. Category A - Readers Only do not require a B and C response. Further, Proposal Section 4: Approach to Maintenance on pages 16-17 indicate a required response for A, B, and C.</p> <p>Please confirm the table is not properly marked and the proposer should follow the expanded instructions on pages 15-17 (of 22)?</p>	<p>Table IV-I was incorrect and these items should not have been marked "N/A".</p> <p>See Revision 11 in B, Revisions, below.</p>

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

1. Section III, Section 4.2, Requirement 285 – Edit as follows:

285	<p>If supplied, 6C Transponders shall meet the following Requirements:</p> <p>Transponders shall be compliant with most recent ISO/EIC 18000-63 standard used by OCS for 6C Interoperability, currently ISO/IEC 18000-63:2013. Transponders shall maintain compliance with future versions of ISO/IEC 18000-63 if and when such future standards are required by OCS;</p> <ul style="list-style-type: none"> • Transponders shall be compliant with most recent 6C Toll Operators Coalition (6C TOC) AVI Transponder Programming Standard at the time of Contract Award (see Attachment 2, 6C TOC AVI Transponder Programming Standard for the current version); • At NCTA’s discretion and at no additional cost to NCTA, Contractor shall provide Transponders that are compliant with newer versions of the 6C TOC AVI Transponder Programming Standard over the life of the Contract; and • Transponders shall be compliant with International Bridge, Tunnel and Turnpike Association (IBTTA) North American Toll Interoperability Program Electronic Toll Collection Protocol Requirements (see Attachment 3, IBTTA NIOP Requirements Document).
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2. Section III, Section 4.3.1, Requirement 286 – Edit as follows:

286	<p>NCTA currently distributes windshield Sticker Transponders via a retail product called “NC Quick Pass”. The current size of this Transponder is 2.89” W X 2.19” H. <u>NCTA uses standard 6” x 9” mailing envelopes for distribution and fulfillment.</u> The Interior Sticker Transponder shall <u>fit within the current mailing envelope</u>not exceed these dimensions.</p>
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Section IV, Section 1.2, Contents of Technical Proposal, Table for Category C – Local Transponders (beginning on page 13 of 22) – Edit the below row as follows:

Category C – Local Transponders		
Section #	Heading	Section Minimum Content
2.4.3.1	Dimensions	For each section, provide details on the form factor(s) and labeling options of the Proposer’s Transponder solution. <u>Include dimensions (in inches) and weight (in ounces) of the proposed Interior Sticker Transponder.</u>
2.4.3.2	Transponder Bar Codes	
2.4.3.3	Transponder Labeling	

3. Section IV, Section 1.1 – Edit as follows:

A separate Proposal must be submitted for each Category proposed. Each Proposal for each Category shall be packaged in a separately sealed submittal which itself shall consist of two (2)

separately sealed submittals (Technical and Price). All price data relating to this Proposal shall be kept separate from and not included in the Technical Submittal.

Proposers may submit more than one Technical Proposal with a corresponding Price Proposal per Category. If a Proposer submits multiple Proposals for one Category, the Proposer shall separately number each Proposal. For example, Category A: Technical Proposal I and Category A: Price Proposal I. Each separate Technical and Price Proposal shall be packaged and sealed as directed in the paragraph above.

4. Attachment 5 – Add the following note to Sheet 7 and Sheet 8 of Attachment 5, US-74 Conceptual Plans for AET (pages 101 and 102 of the original Attachments PDF file):

Note: Length of Toll Gantry for the US-74 Express Lanes shown is conceptual as final design for the Toll Gantry has not been completed. Actual length to be determined based on AVI Contractor and RTCS Contractor designs.

5. Section III (various sections) – Edit as follows:

Section 2.4.6, Requirement 60:

60	The AVI Reader shall meet the Performance Requirements set forth in this Scope of Work and Requirements under the following traffic conditions:
	<ul style="list-style-type: none"> • Vehicles traveling up to 100 130 miles per hour;
	<ul style="list-style-type: none"> • Stop-and-go traffic with continuous intermittent acceleration and deceleration between 0 and 15 miles per hour;
	<ul style="list-style-type: none"> • Vehicles tailgating;
	<ul style="list-style-type: none"> • Different mixes of all vehicle types encountered on North American roads including but not limited to cars, trucks, tractor-trailers, recreation vehicles, motorcycles, buses, and delivery vans;
	<ul style="list-style-type: none"> • Vehicles arriving simultaneously at the Transponder Capture Zone; and
	<ul style="list-style-type: none"> • Vehicles changing and/or straddling lanes.

Section 3.4.1, Requirement 199:

199	Transponders shall be designed to operate without Performance degradation under worst case traffic conditions including the following:
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	<ul style="list-style-type: none"> Vehicles traveling up to 100 +30 miles per hour;
	<ul style="list-style-type: none"> Stop-and-go traffic with continuous intermittent acceleration and deceleration between 0 and 15 miles per hour;
	<ul style="list-style-type: none"> Vehicles tailgating;
	<ul style="list-style-type: none"> Different mixes of all vehicle types encountered on North American roads including but not limited to cars, trucks, tractor-trailers, recreation vehicles, motorcycles, buses, and delivery vans;
	<ul style="list-style-type: none"> Vehicles arriving simultaneously at the Transponder Capture Zone; and
	<ul style="list-style-type: none"> Vehicles changing and/or straddling lanes.

Section 4.4.1, Requirement 291:

291	Transponders shall be designed to operate without Performance degradation under worst case traffic conditions including the following:
	<ul style="list-style-type: none"> Vehicles traveling up to 100 +30 miles per hour;
	<ul style="list-style-type: none"> Stop-and-go traffic with continuous intermittent acceleration and deceleration between 0 and 15 miles per hour;
	<ul style="list-style-type: none"> Vehicles tailgating;
	<ul style="list-style-type: none"> Different mixes of all vehicle types encountered on North American roads including but not limited to cars, trucks, tractor-trailers, recreation vehicles, motorcycles, buses, and delivery vans;
	<ul style="list-style-type: none"> Vehicles arriving simultaneously at the Transponder Capture Zone; and
	<ul style="list-style-type: none"> Vehicles changing and/or straddling lanes.

6. Section III, Section 2.7.5.3, Requirement I43 – Edit as follows:

I43	Contractor shall continue to supply the RTCS Contractor with sufficient spares quantities to maintain the required physical inventory levels of agreed-upon spare parts.
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7. Section III, Section 2.7.5.4, Requirements I47 and I49 – Edit as follows:

I47	Contractor shall be responsible for repairing or replacing failed AVI Reader components and returning them to the spare parts inventory.
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149	If the replaced part is under warranty, the part shall be immediately replaced with a new part by Contractor. If the replaced part is out of warranty, Contractor shall make every effort to repair the replaced item to a usable status and place the part back into spares inventory. Except for Pervasive Defects, for out of warranty components, Contractor shall document why the component could not be repaired and advise NCTA that a new spare must be ordered. (REQUIREMENT DELETED)
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8. Section IV, Section 1.2, Contents of Technical Proposal, Table for Category A – Readers (beginning on page 5 of 22) – Edit the below row as follows:

Category A – Readers		
Section #	Heading	Section Minimum Content
2.2.2	Hardware Requirements	Provide details on how the Proposer’s Reader solution addresses the Hardware Requirements. Include a preliminary design for the proposed Reader and Antenna configuration for Toll Zone 6-2 on the Triangle Expressway (Attachment 1, Drawings CI040-E25 and ITS-03C), Toll Zone 4-1 on the Monroe Expressway (Attachment 4, Sheets GAN-5, GAN-16, GAN-17), and the US-74 westbound reversible Toll Zone (Attachment 5, Sheets 7 and 8). Include details on the proposed Reader and Antenna configuration for each Toll Facility indicated.

9. Exhibit A, Project Schedule, Category A – Readers – Edit as follows:

Exhibit A – Project Schedule Category A - Readers		
Major Milestone Description	Projected Start	Projected End
Notice to Proceed	November 29, 2016	
Project Kick-Off Meeting	November 29, 2016	
Documentation		
Maintenance and Repair Manual	December 2017 2016	January 2017
Interface Control Document	December 2017 2016	January 2017
Operating Documentation	December 2017 2016	January 2017

(The remaining rows are omitted here and do not require any changes)

10. Section III, Section 2.1.1, Requirements 4 and 5 – Edit as follows:

4	Contractor shall furnish Cabinets and enclosures shall be equipped with locks controlled by proximity card readers with key cylinder backup <u>to secure the AVI Reader Cabinets and enclosures. The RTCS Contractor will be responsible for installing the locks.</u>
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5	Contractor shall coordinate with the RTCS Contractor to ensure cabinet and enclosure locking mechanisms and proximity cards are compatible with the RTCS Access Control and Security Monitoring System (ASCSMS) <u>and the ACSMS proximity cards.</u>
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11. Section IV, Section 1.2, Content of Technical Proposal, Table IV-I, Proposal Page Limitations – Edit as follows:

Proposal Sections to be Completed by a Proposer Category A Readers	Page Count Limitations Category A Readers	Proposal Sections to be Completed by a Proposer Categories B TDM Transponders and C Local Transponders (each)	Page Count Limitations Categories B TDM Transponders and C Local Transponders (each)
Cover Sheet Form	1 page	Cover Sheet Form	1 page
Cover Letter	2 pages	Cover Letter	2 pages
Executive Summary	2 pages	Executive Summary	2 pages
Section 1: Firm and Team Qualifications	Limited to a combined total of 100 printed pages	Section 1: Firm and Team Qualifications	Limited to a combined total of 50 printed pages
Section 2: Approach to Scope of Work and Requirements		Section 2: Approach to Scope of Work and Requirements	
Section 3: Approach to Project Plan and Implementation		Section 3: Approach to Project Plan and Implementation (N/A)	
Section 4: Approach to Maintenance		Section 4: Approach to Maintenance (N/A)	

(The remaining rows are omitted here and do not require any changes)