

# RFI Detail Nevada Department of Transportation

Request For Information No. 9

NDOT Contract Data NDOT Contact Data

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TOPIC: Misc Questions

QUESTION: 2/5/2007 10:52:00 AM; RESPONSE: 2/12/2007 11:59:00 AM

## 1 Section 105.03 (a)(E)

Please clarify the following;

Please define the “NDOT communication software” to be used to test the communications protocols and interfaces to the new field devices including the protocols and interfaces required and provided, the functionality supported and the hardware requirements to run the software.

**Response:** The software was developed by the FAST stage 1 System Integrator as a way to test field devices installed on that project. The Department will supply that software “as is” to the Contractor/System Integrator who is awarded this project for their use. The Department makes no claim to its worthiness to the Contractor/System Integrator.

Please explain the requirement to operate active field devices on an “interim” basis.

**Response:** Until the devices are tied into the FAST Central System Software. The System Integrator may use the “NDOT” Communication software to test the equipment/system.

Please explain the statement that “the two functional elements of device communications software may be combined into one package or delivered as 2 separate software packages with respect to the integrations requirements that might arise accordingly.

**Response:** This wording was mistakenly left in the special provisions. The Department will provide you with test software used during previous system acceptance testing. The device communication software that NDOT currently has may need to be modified based on equipment selection by the Contractor/System Integrator. The Contractor/System Integrator is responsible for any and all modification needed in order to perform the required testing on this project.

Please explain what changes to the NDOT test communications software are anticipated and that NDOT is responsible for implementing those changes. Will changes to the communications test software require changes to the operating system software and is NDOT responsible for those changes as well?

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<sup>1</sup>\$Header: d:/NewProtocolStuff/08JUN07/RCS/test.tex,v 1.8 2007-05-31 08:25:39-07 Hamilton Exp Hamilton \$

**Response:** It is unknown what if any modifications are needed. The Department will provide you with testing software used during previous system acceptance testing. The device communication software that the Department currently has may need to be modified based on equipment selection by the Contractor/System Integrator. The Contractor/System Integrator is responsible for any and all modification needed in order to perform the required testing on this project. NO CHANGES TO THE FAST CENTRIAL SYSTEM SOFTWARE WILL BE ALLOWED.

## 2 Section 105.03 (a) (F)

Please clarify the following; Is the “FAST Central System Software device communication software developed for the SST loaded on the NDOT furnished operator workstation located at the TMC” is the same test communications software provided by NDOT in

**Response:** No, the Department will provide you with test software used during previous system acceptance testing that can be used for the SST testing. The Contractor/System Integrator is required to use the FAST Central System Software for the SAT Testing.

## 3 Section 623.01.02

Please clarify the following; k: Does NDOT required a Systems Engineer be assigned to the field for the life of the contract or only for the period of field integration? Does this include the Availability Test and Warranty period?

**Response:** The Systems Engineer shall be on site through system acceptance. The Systems Engineer is not required to be in site during the warranty period.

## 4 Section 623.02.23 Controllers

Please clarify the following;

Please define the NDOT owned firmware to be used in the 170E Controllers.

**Response:** The Department, on an earlier phase of the FAST Project has developed the firmware required for the detector stations and ramp meters. The Contractor/System Integrator is required to use that firmware.

Please define the “computers being furnished to the project” for SST testing.

**Response:** The Department will allow the Contractor/Systems Integrator access to one operator workstation at the TMC for the SST testing.

Please define the communications protocol required for the controllers, the radar detectors, and the VIDS.

**Response:** The communications protocol is the same protocol used on earlier FAST contracts and is available upon request. No changes will be allowed.

Please define the functional requirements for radar detectors, VIDS and ramp metering.

**Response:** The communications protocol is the same protocol used on earlier FAST contracts and is available upon request. No changes will be allowed.

## 5 Section 623.02.28, Video Image Detection System

Please clarify the following:

Please define the technical and functional requirements for this equipment.

Please define the interface of this equipment to the FAST central system.

**Response:** The Video Image detection System is used for vehicle detection on the ramp meters. Acceptable video image detection systems are Iteris Edge 2 with 1 mouse and 1 monitor in each ramp meter cabinet and Iteris Cameras or Autoscope Rackvision with 1 mouse and 1 monitor in each ramp meter cabinet and Autoscope cameras. No other systems will be accepted

## 6 Section 623.02.33, CCTV Field Equipment

Please clarify the following; please specify brand and model of existing CCTV field equipment.

**Response:** Cohus IVIEW camera utilizing the FAST CCTV Protocol. The specifications allow for other cameras as long as they meet the requirements of the special provisions.

## 7 Section 623.02.34, Dynamic Message Sign

Please confirm the following; please define the protocol required to be used to communicate between the DMS and the central system. Is the existing system NTCIP compliant?

**Response:** Supply only DMSs that are on NDOTs Qualified Products List. The signs on the QPL meet all the NDOT protocol requirements and NTCIP requirements. No other DMSs will be accepted.

## 8 Section 623.02.38, Modify Traffic Management Center

Please clarify the following; please clarify if NDOT requires modification of its existing IT software in order to integrate system components with FAST FMS.

Please fully describe the existing FAST FMS software that will require modification.

Please describe all required upgrades to existing FAST FMS software required by NDOT.

Please describe all new licensing of new applications or upgrades to existing applications.

**Response:** No modifications are needed and will be permitted on the FAST Central System Software (FAST FMS). As the system is expanded on this contract, equipment at the TMC may need to be upgraded or expanded. The System Integrator is responsible for any and all upgrades and/or modifications needed to make a fully functioning TMC utilizing NDOTs FAST Central System Software. This contract is for expansion of NDOTs FAST System. The System Integrator need only supply the additional hardware associated with the new devices being added to the system. This bid item also includes all the labor associated with installing that additional equipment, connecting, testing and making fully operational all new and existing field elements within the project limits.

## 9 Section 623.02.42, Note Processor

Please clarify the following;

Please provide the functional, interface, and physical characterizes of this device to be installed by the systems integrator. The Contract Drawings include the following equipment as to be supplied by the systems integrator, however, the specifications do not include any functional or technical specifications for these items.

**Response:** The Node Processor will be supplied and by the Department. The System Integrator is responsible for the installation and testing of that equipment. A cut sheet of this device is available on request. The Node Processor will be supplied with software installed,

Please clarify the requirements for: FMS Server Computer Operator Workstation Computer Operator Workstation Video Monitor FMS Video Graphics Computer Wall Processor Network Management Computer and associated Network Switch

**Response:** The above list of equipment is already installed and operational at the TMC. Cut sheet of this device is available on request. The Contract Drawings show a Central Video Switch to be upgraded by the systems integrator.

Please provide information on the make, model and upgrade required by NDOT.

**Response:** The Central Video Switch was upgraded on a previous NDOT contract and will have the required inputs available for the Contractor/System Integrator to use on this contract. A walk-thru can be scheduled for the TMC upon Request.