

## ATTACHMENT 5

### ATMS SYSTEM REQUIREMENTS

**The consultant must respond to every requirement.** The consultant must also respond to any “specific instructions to respondents” by providing the page number in their proposal where the fulfillment of the requirement is provided. Not providing the page number where the requirement is addressed in the proposal will result in a lower score. **Failure to respond to each and every requirement may lead to proposal dismissal on non-responsive grounds.**

#### Definitions:

- **Mandatory** – The project requirements defined in this RFP, denoted as ‘Mandatory’, represent the Mandatory requirements that must be met by each consultant’s proposal in order to be initially deemed technically responsive to the RFP during the pre-screening evaluation phase. The consultant **must** meet this requirement. Mandatory requirements are evaluated as either pass or fail and are not included in the proposal score. If the requirement is not met, NYSDOT may deem this proposal to be non-responsive. Any proposal deemed to be non-responsive shall eliminate the consultant and its proposal from further consideration.
- **Necessary** – the requirement is essential in fulfilling the contract. NYSDOT will evaluate and document the degree of responsiveness of the consultant’s response to requirements labeled within this RFP as ‘Necessary’ and numerically score responses. NYSDOT will not eliminate consultants who fail to demonstrate how they plan to meet a Necessary requirement; however, failure to demonstrate how a Necessary requirement will be met will result in a lower technical evaluation score.
- **Desired** – the requirement describes goods or services that the agency prefers, but that the consultant is not obligated to propose. NYSDOT will evaluate and document the degree of responsiveness and numerically score responses to requirements denoted as ‘Desired’.
- **OB** – out of the box. Assumed to mean that the system meets the requirements without any of the following being applicable.
- **CNF** – special configuration. Special configuration is the scenario where the product does not include standard features built specifically to address the requirement in question, but the desired results can be achieved by configuring the system in a specific way. A typical example of a special configuration is the use of a workflow engine that supports business processes. The workflow typically requires configuration to implement business rules that are unique to the process. The application has a framework to alter the look or function of the application based on data stored in supporting database table.
- **CST** – customization. This is the scenario where the standard product does not include features built specifically to address the requirement in question, and where custom development effort is needed to achieve the desired results.
- **NAV** – not available. The required functionality is not available and cannot be provided. This is the scenario where the standard product does not have features built specifically to address the requirement in question, and where the respondent does not recommend additional customization to the software to meet the requirement.

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			OB	CNF	CST	NAV		
1.	<ul style="list-style-type: none"> <li>The system shall provide <b>Camera Control</b> - selection, Pan, Tilt, Zoom-PTZ, viewing, recording and playback.</li> </ul>	M						
1.1.	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>The system shall provide Control of cameras from workstation assignments (refer to field equipment inventory for required cameras)</li> </ul> </li> </ul>	N					Indicate how many cameras are supported Indicate which models of camera are supported	
1.2.	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>The system shall provide Multiple simultaneous viewing of a single camera live video stream</li> </ul> </li> </ul>	N					Indicate how many simultaneous live streams are supported Indicate how this is supported (e.g. IP multicast)	
1.3.	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>The system shall provide Viewing multiple video streams (live or recorded) on a single display</li> </ul> </li> </ul>	N					Indicate how many simultaneous video streams are supported	
1.4.	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>The system shall provide Control of video matrix switcher output assignments</li> </ul> </li> </ul>	N						

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			OB	CNF	CST	NAV		
1.5.	<div> <div></div> <div>The system shall provide camera presets for PTZ cameras</div> </div>	N					Indicate how many presets are supported	
1.6.	<div> <div></div> <div>The system shall provide the ability to tour through camera presets for PTZ cameras</div> </div>	N						
1.7.	<div> <div></div> <div>The system shall provide Control for monitor image sequencing</div> </div>	N						
1.8.	<div> <div></div> <div>The system shall provide Support for full screen or windowing of full motion video</div> </div>	N						
1.9.	<div> <div></div> <div>The system shall provide Freeze frame display and digital storage The system shall provide (frame capture)</div> </div>	N						
1.10.	<div> <div></div> <div>The system shall provide Video wall control (Region 3 only)</div> </div>	D						
1.11.	<div> <div></div> <div>The system shall provide network connected video recording and playback system supporting multiple recording and playback qualities.</div> </div>	N						
1.11.1.	<div> <div></div> <div> <div></div> <div>The system shall support 720x480 resolution</div> </div> </div>	N						
1.11.2.	<div> <div></div> <div> <div></div> <div>The system shall support 30FPS video recording and playback</div> </div> </div>	N						
1.11.3.	<div> <div></div> <div> <div></div> <div>The system shall support MJPEG, MPEG-2, MPEG-4 and H.264 video recording and playback</div> </div> </div>	N						
1.11.4.	<div> <div></div> <div> <div></div> <div>The system shall support Multiple simultaneous streams (recording or viewing)</div> </div> </div>	N					Indicate how many of each type of stream and hardware required to support	

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1.11.5.	<ul style="list-style-type: none"> <li>The system shall support User customizable file naming</li> </ul>	N						
2.	<ul style="list-style-type: none"> <li>The system shall provide <b>VMS Management</b> with the ability to create messages, view and report status of the VMS.</li> </ul>	M						
2.1.	<ul style="list-style-type: none"> <li>The system shall provide Control for multiple device assignments (refer to field equipment inventory for required signs)</li> </ul>	N					Indicate how many device assignments are supported	
2.2.	<ul style="list-style-type: none"> <li>The system shall provide Control independence of each device</li> </ul>	N						
2.3.	<ul style="list-style-type: none"> <li>The system shall provide Assign and control signs in user-defined groups</li> </ul>	N						
2.4.	<ul style="list-style-type: none"> <li>The system shall provide Workstation Message Upload/Download</li> </ul>	N						
2.5.	<ul style="list-style-type: none"> <li>The system shall provide Support uploading of current &amp; stored messages</li> </ul>	N						
2.6.	<ul style="list-style-type: none"> <li>The system shall provide Communication validation</li> </ul>	N						
2.7.	<ul style="list-style-type: none"> <li>The system shall provide Block-out operator control if failed</li> </ul>	N						
2.8.	<ul style="list-style-type: none"> <li>The system shall provide Support static or dynamic displays</li> </ul>	N						
2.9.	<ul style="list-style-type: none"> <li>The system shall provide Support dynamic travel time messages</li> </ul>	N						
2.9.1.	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>The system shall provide Automatic selection of VMS delay messages based on sensor data</li> </ul> </li> </ul>	N						
2.9.2.	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>The system shall provide the ability to assign data from individual sensors or groups of sensors to individual signs or groups of signs (“zones”) for automatic messaging</li> </ul> </li> </ul>	N						

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2.10.	<ul style="list-style-type: none"> <li>The system shall provide for programmable test pattern</li> </ul>	N						
2.11.	<ul style="list-style-type: none"> <li>The system shall provide manual control of dimming levels</li> </ul>	N					Indicate how many dimming levels are supported	
2.12.	<ul style="list-style-type: none"> <li>The system shall provide Control of PVMS</li> </ul>	N						
2.13.	<ul style="list-style-type: none"> <li>The system shall provide Establishment of Delay Criteria for multi-page messages</li> </ul>	N						
2.14.	<ul style="list-style-type: none"> <li>The system shall provide Semi-Automatic Variable Message Sign Display Mode</li> </ul>	N						
2.15.	<ul style="list-style-type: none"> <li>The system shall provide Message Priorities</li> </ul>	N						
2.16.	<ul style="list-style-type: none"> <li>The system shall provide Spell check/approved word list</li> </ul>	N						
2.17.	<ul style="list-style-type: none"> <li>The system shall provide Word blocking</li> </ul>	N						
2.18.	<ul style="list-style-type: none"> <li>The system shall provide Activity logging</li> </ul>	N						
2.19.	<ul style="list-style-type: none"> <li>The system shall provide Automatic mapping of GPS equipped PVMS (show location on interactive map)</li> </ul>	N						
2.20.	<ul style="list-style-type: none"> <li>The system shall provide Emergency diversion route plan implementation and sign support</li> </ul>	N						
2.21.	<ul style="list-style-type: none"> <li>The system shall provide Provide real-time XML export of sign messages</li> </ul>	N						
3.	<ul style="list-style-type: none"> <li>The system shall provide collection, display and reporting of data from <b>Roadway Sensors</b> (refer to field equipment inventory, Attachment 15, for required sensors).</li> </ul>	N						

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3.1.	<ul style="list-style-type: none"> <li>The system shall provide collection, display and reporting of data from traffic sensors (including but not limited to loop detectors, acoustic, radar and video, Bluetooth, Transmit sensors), through controller and direct connect. (Refer to field equipment inventory, Attachment 15, for required sensors).</li> </ul>	N						
3.2.	<ul style="list-style-type: none"> <li>The system shall provide collection, display and reporting of data from weather sensors. (Refer to field equipment inventory, Attachment 15, for required sensors).</li> </ul>	N						
3.3.	<ul style="list-style-type: none"> <li>The system shall provide collection, display and reporting of data from temperature detectors (refer to field equipment inventory, Attachment 15, for required sensors).</li> </ul>	N						
3.4.	<ul style="list-style-type: none"> <li>The system shall provide collection, display and reporting of data from license plate readers</li> </ul>	D						
3.5.	<ul style="list-style-type: none"> <li>The system shall provide collection, display and reporting of data from over-height detection (refer to field equipment inventory, Attachment 15, for required sensors).</li> </ul>	N						
3.6.	<ul style="list-style-type: none"> <li>The system shall provide collection, display and reporting of data from ramp Metering</li> </ul>	N						
4.	<ul style="list-style-type: none"> <li>The system shall provide the following <b>Traffic Data Variables</b> from roadway sensors (see Attachment 15, Field Equipment Inventory for details of current roadway sensors).</li> </ul>	N						
4.1.	<ul style="list-style-type: none"> <li>The system shall report on Counts</li> </ul>	N						
4.2.	<ul style="list-style-type: none"> <li>The system shall report on Occupancies</li> </ul>	N						
4.3.	<ul style="list-style-type: none"> <li>The system shall report on Failures</li> </ul>	N						
4.4.	<ul style="list-style-type: none"> <li>The system shall report on Speeds</li> </ul>	N						

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4.5.	▪ The system shall report on Vehicle Lengths	N						
4.6.	▪ The system shall report on Vehicle Classifications	N						
4.7.	▪ The system shall report on Daily Failure log	N						
4.8.	▪ The system shall provide Daily Communication Errors log	N						
4.9.	▪ The system shall provide Traffic Data sensor detail	N						
4.10.	▪ The system shall provide Traffic Data sensor summary	N						
4.11.	▪ The system shall provide Real time Traffic Data export in XML format	N					Indicate what export formats are supported	
4.12.	▪ The system shall provide Travel time calculation and feed to VMS	N						
4.12.1.	○ The system shall provide exact travel time calculation for automated VMS (as opposed to time range estimate)	N						
4.13.	▪ The system shall provide Surveillance Reports and Displays (GUI and File Copy)	N						
4.13.1.	○ The system shall provide Individual Mainline Detector Station Current Status: Data included	N						
4.13.2.	○ The system shall provide System Mainline Detector Station Current Status: Data included	N						
4.13.3.	○ The system shall provide Individual Ramp Detector Station Current Status: Data included	N						
4.13.4.	○ The system shall provide System Ramp Detector Station Current Status: Data included	N						
4.13.5.	○ The system shall provide End-of-Day Reports	N						

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4.14.	<ul style="list-style-type: none"> <li>The system shall provide a Historical Dynamic Database.</li> </ul>	N						
4.14.1.	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>The system shall provide Standard and user defined Data Reports that allow exporting in XML format</li> </ul> </li> </ul>	N					Indicate what export formats are supported	
4.14.2.	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>The system shall generate 15-minute Historical Dynamic Database traffic data</li> </ul> </li> </ul>	N						
4.14.3.	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>The system shall generate report for filtered data: volume, occupancy, speed, etc.</li> </ul> </li> </ul>	N						
5.	<ul style="list-style-type: none"> <li>The system shall provide <b>Ramp Metering</b> operations support.</li> </ul>	M					Indicate what ramp meter equipment is supported	
5.1.	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>The system shall provide Firmware for existing DOT 2070E controllers used for Ramp Meters and for surveillance (aggregate data from field detectors).</li> </ul> </li> </ul> REVISED PER RFP Modification #2	N						
5.2.	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>The system shall provide Mode setting via GUI</li> </ul> </li> </ul>	N						
5.3.	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>The system shall provide Modes by Sub-network</li> </ul> </li> </ul>	N						
5.4.	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>The system shall provide Modes by individual ramp</li> </ul> </li> </ul>	N						
5.5.	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>The system shall provide Time-of-Day Scheduler</li> </ul> </li> </ul>	N						
5.6.	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>The system shall provide Time Scheduler: Day-of-Week Scheduler for each day of week (DOW &amp; ) and day of year (DOY)</li> </ul> </li> </ul>	N						
5.7.	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>The system shall provide Remote Manual Rate Select - System Wide</li> </ul> </li> </ul>	N						

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5.8.	<ul style="list-style-type: none"> <li>The system shall provide Remote Manual Rate Select - Individual Ramp</li> </ul>	N						
5.9.	<ul style="list-style-type: none"> <li>The system shall provide Ramp Metering: Download/Upload Capability</li> </ul>	N						
5.10.	<ul style="list-style-type: none"> <li>The system shall provide Ramp metering reports and displays.:</li> </ul>	N						
5.10.1.	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>The system shall provide Activity logs</li> </ul> </li> </ul>	N						
5.10.2.	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>The system shall provide Current Status Report</li> </ul> </li> </ul>	N						
5.10.3.	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>The system shall provide Field Controller Recent Status</li> </ul> </li> </ul>	N						
5.10.4.	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>The system shall provide End-of-Day Report</li> </ul> </li> </ul>	N						
6.	<ul style="list-style-type: none"> <li>The system shall provide <b>Failure Management</b> functions.</li> </ul>	M						
6.1.	<ul style="list-style-type: none"> <li>The system shall provide Map-based icon field device identification</li> </ul>	N						
6.1.1.	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>The system shall provide the ability to add text description to icon</li> </ul> </li> </ul>	N					Describe how this is handled and how many characters are allowed	
6.2.	<ul style="list-style-type: none"> <li>The system shall provide Map-based icon indication of equipment operational status (operational/non-operational/stand-by)</li> </ul>	N						
6.3.	<ul style="list-style-type: none"> <li>The system shall provide Provision for alarm icons and alarm text</li> </ul>	N						

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6.4.	<ul style="list-style-type: none"> <li>The system shall provide Failure Classification and Action: Detector and Field Controller</li> </ul>	N						
6.5.	<ul style="list-style-type: none"> <li>The system shall provide Chronological and Daily Log of Failures</li> </ul>	N						
6.6.	<ul style="list-style-type: none"> <li>The system shall provide User defined Temperature Thresholds</li> </ul>	N						
6.7.	<ul style="list-style-type: none"> <li>The system shall provide Display Excessive Temperature Alarms</li> </ul>	N						
6.8.	<ul style="list-style-type: none"> <li>The system shall provide Ability to set Standby status</li> </ul>	N						
6.9.	<ul style="list-style-type: none"> <li>The system shall provide Ability to automatically set Failed Status</li> </ul>	N						
6.10.	<ul style="list-style-type: none"> <li>The system shall provide Ability to manually set Failed Status (Including CCTV or other devices not part of automatic monitoring)</li> </ul>	N						
6.11.	<ul style="list-style-type: none"> <li>The system shall provide Ability to reset Field Devices</li> </ul>	N						
▪	<ul style="list-style-type: none"> <li>The system shall provide Communication Errors Log online for 31 days</li> </ul>	N						
6.12.	<ul style="list-style-type: none"> <li>The system shall provide Communication Errors Workstation report</li> </ul>	N						
6.13.	<ul style="list-style-type: none"> <li>The system shall provide Communication Analysis Report 4-hour summaries</li> </ul>	N						
6.14.	<ul style="list-style-type: none"> <li>The system shall provide Communication Analysis Report Daily totals</li> </ul>	N						
6.15.	<ul style="list-style-type: none"> <li>The system shall provide System Event Log</li> </ul>	N						
7.	<ul style="list-style-type: none"> <li>The system shall provide <b>Map and Schematic Based Views</b> for roadways and field equipment location and status.</li> </ul>	M						

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7.1.	<ul style="list-style-type: none"> <li>The system shall provide an interactive map depicting the geographic location of the highway network and the locations of all field equipment types (listed in Attachment 15).</li> </ul>	N						
7.2.	<ul style="list-style-type: none"> <li>The interactive map shall include a current, high quality base map equivalent to the industry standards from Google, Bing or Esri. (NYS DOT has license for Google...)</li> </ul>	N						
7.3.	<ul style="list-style-type: none"> <li>The system shall provide an interactive schematic view of the highway network and the relative locations of all field equipment types (listed in Attachment 15).</li> </ul>	N						
7.4.	<ul style="list-style-type: none"> <li>The system shall be able to toggle between the geographic map and schematic view.</li> </ul>	D						
7.5.	<ul style="list-style-type: none"> <li>The system shall allow the user to add one or more Web Map Service (WMS) layers from the NYSDOT GIS environment or the internet to the interactive map.</li> </ul>	D						
7.6.	<ul style="list-style-type: none"> <li>The system shall provide user defined pre-set views (e.g. statewide, region, default) in the interactive map and schematic views.</li> </ul>	N						
7.7.	<ul style="list-style-type: none"> <li>The system shall provide unique symbology for each device type (e.g. camera, sign, traffic sensor).</li> </ul>	N						
7.8.	<ul style="list-style-type: none"> <li>The system shall indicate the current status of field equipment from the interactive map and schematic views. ( at a minimum - online, offline, failed)</li> </ul>	N						
7.9.	<ul style="list-style-type: none"> <li>The system shall provide access to the device control by left clicking on the map based symbol for the device</li> </ul>	N						

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7.10.	<ul style="list-style-type: none"> <li>The system shall provide labels (up to 20 characters in length) for any device depicted on the interactive map and schematic views. The system shall provide authorized users the ability to configure the content and font of the labels.</li> </ul>	N						
7.11.	<ul style="list-style-type: none"> <li>The system shall provide user pre-defined information on “mouse-over” providing more information about a devices attributes</li> </ul>	N						
7.12.	<ul style="list-style-type: none"> <li>The system shall provide a map legend that depict all layers included in the interactive map and schematic views.</li> </ul>	N						
7.13.	<ul style="list-style-type: none"> <li>The user should be able to toggle the visibility of the map legend.</li> </ul>	D						
7.14.	<ul style="list-style-type: none"> <li>The system shall provide the user to Pan, Zoom, and Select on the interactive map or schematic</li> </ul>	N						
7.15.	<ul style="list-style-type: none"> <li>The system shall provide the user ability to turn map layers on and off in the interactive map and schematic view.</li> </ul>	N						
7.16.	<ul style="list-style-type: none"> <li>The system shall allow authorized users to edit and modify the schematic map</li> </ul>	N						
7.17.	<ul style="list-style-type: none"> <li>The system’s interactive map and schematics are implemented using Esri GIS technology.</li> </ul>	D						
8.	<ul style="list-style-type: none"> <li>The system shall provide <b>High Availability</b> of system features and functions.</li> </ul>	N						
8.1.	<ul style="list-style-type: none"> <li>The system shall provide Local and remote (over a Wide Area Network -WAN) redundant servers with automatic, semi-automatic, and manual failover options:</li> </ul>	N						
8.1.1.	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>The system shall provide Failover - Cold Start Up</li> </ul> </li> </ul>	N						
8.1.2.	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>The system shall provide Failover - Warm Start Up</li> </ul> </li> </ul>	N						

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8.1.3.	○ The system shall provide Failover – Hot Standby	N						
8.1.4.	○ The system shall provide Failover - Full time load balanced	N						
8.2.	▪ The system shall provide Power Fail Restart	D						
8.3.	▪ The system shall provide Database Changes On-Line	N						
8.4.	▪ The system shall provide Mirrored Server Systems	N						
8.5.	▪ The system shall provide Support of Off-Line Programming	N						
8.6.	▪ The system shall provide Communication Protocol Diagnostic with printed report ability	N						
9.	• The system shall include <b>System Management</b> functions.	N						
9.1.	▪ The system shall provide the ability to administer user access – e.g. establish and edit user profiles, delete users, reset passwords	N						
9.2.	▪ The system shall provide the ability to enforce admin and end user password changes on a scheduled or on-demand basis	N						
9.2.1.	○ The system shall provide the ability to enforce DOT username conventions	N						
9.2.2.	○ The system shall provide the ability to enforce DOT password complexity requirements	N						
9.3.	▪ The system shall provide the ability to track and log all system users	N						
9.4.	▪ The system shall provide the ability to partition the system for access to types of field equipment e.g. access to signs only, or cameras only	N						

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9.5.	<ul style="list-style-type: none"> <li>The system shall provide the ability to partition the system for access to groups of field equipment e.g. all Cameras in Region 3, all equipment in Region 3 and Region 8</li> </ul>	N						
9.6.	<ul style="list-style-type: none"> <li>The system shall provide the ability to partition the system by permission level, e.g. super user, administrator, read only, read-write, view device status or output, control device.</li> </ul>	N						
9.7.	<ul style="list-style-type: none"> <li>The system shall provide the ability to partition the system using any combination of the criteria above</li> </ul>	N					Describe your implementation of system partitioning	
9.8.	<ul style="list-style-type: none"> <li>The system shall include acontext-sensitive online help function</li> </ul>	D						
10.	<ul style="list-style-type: none"> <li>The system shall use current supported version of <b>Oracle or MS SQL Database</b> for data storage</li> </ul>	M						
11.	<ul style="list-style-type: none"> <li>The system shall include the ability to communicate with field devices using the following <b>Network Types and Protocols</b>:</li> </ul>	N						
11.1.	<ul style="list-style-type: none"> <li>The system shall support Fiber</li> </ul>	N						
11.2.	<ul style="list-style-type: none"> <li>The system shall support CDMA</li> </ul>	N						
11.3.	<ul style="list-style-type: none"> <li>The system shall support Leased Line</li> </ul>	N						
11.4.	<ul style="list-style-type: none"> <li>The system shall support Dial Up</li> </ul>	N						
11.5.	<ul style="list-style-type: none"> <li>The system shall support Serial</li> </ul>	N						
11.6.	<ul style="list-style-type: none"> <li>The system shall support Ethernet</li> </ul>	N						
11.7.	<ul style="list-style-type: none"> <li>The system shall support Internet Protocol Suite (aka TCP/IP model (e.g. IP, TCP, UDP, SNMP, IGMP)</li> </ul>	N					Describe protocol support of your system	

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12.	<ul style="list-style-type: none"> <li>The system shall include the ability to communicate with field devices using the following <b>Data and Message Protocols</b>:</li> </ul>	N						
12.1.	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>The system shall support NTCIP</li> </ul> </li> </ul>	N						
12.2.	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>The system shall support TMDD</li> </ul> </li> </ul>	N						
12.3.	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>The system shall support FEU</li> </ul> </li> </ul>	N						
13.	<ul style="list-style-type: none"> <li>The system shall provide <b>Traffic Signal</b> monitoring and operations support including signal failure notification (Currently handled by central NYSDOT server - Streetwise)</li> </ul>	D						
14.	<ul style="list-style-type: none"> <li>The system shall be capable of exporting all inventory information about all field devices (including but not limited to devices identified in Attachment 15) to an XML export file.</li> </ul>	N						
15.	<ul style="list-style-type: none"> <li>The system shall be capable of importing all inventory information about all field devices (including but not limited to Attachment 15) from an import file (e.g. comma delimited, Excel).</li> </ul>	N						
16.	<ul style="list-style-type: none"> <li>The system shall provide operation and control of <b>Highway Advisory Radio</b> (HAR).</li> </ul>	D						
16.1.	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>The system shall provide Current Status Report</li> </ul> </li> </ul>	D						
16.2.	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>The system shall provide Field Controller Recent Status</li> </ul> </li> </ul>	D						
16.3.	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>The system shall provide End-of-Day Report</li> </ul> </li> </ul>	D						
17.	<ul style="list-style-type: none"> <li>The system shall support <b>Statewide</b> management, operation and control over a DOT provided WAN, including:</li> </ul>	N						
17.1.	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>The system shall provide the ability for regions to provide full remote operational support for another region during an emergency or planned event</li> </ul> </li> </ul>	N						

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17.2.	▪ The system shall provide for extension of features and functionality to smaller regions	N						
17.3.	▪ The system shall provide the ability for the STICC to have visibility into regional management operations and to provide backup operations support to the regions.	N						
17.4.	▪ The system shall provide support for application and data storage redundancy for failover and backup	N						