
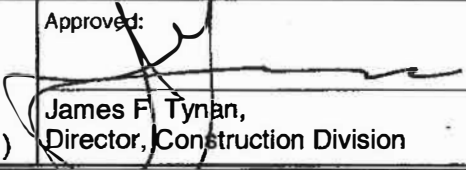


SUPERSEDED BY EB 23-024 EFFECTIVE 8/3/23		New York State Department of Transportation ENGINEERING INSTRUCTION	EI 07-010
Title: SPECIAL SPECIFICATION 637.4000nn20 WEBCAM SYSTEM			
Distribution: <input type="checkbox"/> Manufacturers (18) <input checked="" type="checkbox"/> Local Govt. (31) <input checked="" type="checkbox"/> Agencies (32)	<input type="checkbox"/> Surveyors (33) <input checked="" type="checkbox"/> Consultants (34) <input checked="" type="checkbox"/> Contractors (39) <input type="checkbox"/> _____ ()	Approved:  James F. Tynan, Director, Construction Division	3-12-07 Date

ADMINISTRATIVE INFORMATION:

- This Engineering Instruction (EI) is effective beginning with projects submitted for the letting of 09/06/07.
- This EI does not supersede any previous issuance.

PURPOSE:

To issue Special Specification 637.4000nn20 Webcam System.

TECHNICAL INFORMATION:

- Webcam systems consist of all-weather, high definition cameras that are placed in strategic locations to capture high-resolution digital still images at a set time interval.
- The images are securely uploaded to a secure, password-protected website and stored in chronological order. The state-owned images can be viewed over the Internet by Department-authorized personnel (Department staff and the contractor, at a minimum).
- Webcam systems should be considered for use on high profile projects that can are geographically localized in nature, such as bridge or interchange construction where the majority of the work site can be viewed from a single location.

IMPLEMENTATION:

- Designers should coordinate the inclusion of a webcam system on a project with their Regional Construction Group.
- MO Design Quality Assurance Bureau will insert the special specification into contract proposals beginning with projects submitted for the letting of 09/06/07.

TRANSMITTED MATERIALS:

This EI transmits Special Specification 637.4000nn20 Webcam System.

BACKGROUND:

The Office of Construction has investigated the use of webcam systems and determined that significant benefits in the areas of construction management, dispute avoidance/resolution and public relations can be obtained through the use of this technology on construction contracts. The webcam system shall be installed and operated in accordance with the *Policy for the Operation of Webcam Systems on Construction Contracts* being issued concurrently via EI 07-009.

CONTACT:

Direct questions regarding this Engineering Instruction to Jon King via email at jkking@dot.state.ny.us or to the Office of Construction at (518) 457-6472.

ITEM 637.4000nn20 WEBCAM SYSTEM

DESCRIPTION

This work shall consist of providing, installing, maintaining and removing a webcam system, with a camera mounted on wood utility pole. A single website for image storage and online access may be used for multiple cameras, provided the images are organized and available for each camera separately.

MATERIALS

The webcam system shall meet the following material requirements:

Camera

- The high definition camera and lens assembly shall take high resolution (minimum 3.2 megapixel - 2048 x 1536) digital still color images and have the capability to remotely change resolution, focus and zoom.
- Focus system: iESP Multi-pattern TTL system autofocus.
- White balance system: iESP Multi-pattern full-auto TTL
- Powered by 120 VAC electrical supply, GFCI protected (provided, installed, maintained and removed by Contractor).

Camera Enclosure

- The camera enclosure shall be UL compliant and shall meet NEMA Type 3R standards.
- Include provisions for a fixed installation to a pole or wall.
- Shall include a thermal insulation package, heater, blower, window defroster kit, sun shroud and shall operate within a minimum temperature range of -25°C to 45°C.
- Powered by 120 VAC electrical supply, GFCI protected (provided, installed, maintained and removed by Contractor).

Interface and Online Access

- The system must provide wireless cellular modem as an option for uploading the digital still images.
- The online interface system shall allow viewing of all high-definition digital still images captured and stored during the duration of the contract over the internet with password-protection.
- The still images shall be in a non-proprietary format that can be freely viewed with most image viewing software (.bmp, .jpeg, .tif or .gif)
- Navigation: Calendar based navigation system for selecting specific images on specific days.
- Zoom: Pan and zoom capability for zooming into the high definition images.
- Fullscreen: Screen maximizing the view of the images on the users monitor.
- Slideshow: Capability to browse through images, moving forward and backward in time by individual image and by day.

Embedded Wood Utility Pole

- The pole shall be a minimum 18.2 m in length, Southern pine and meet the requirements of ANSI #05.01 for Class 4 utility type poles.
- The pole shall be given a water borne preservative treatment in accordance with §708-31.

CONSTRUCTION DETAILS

The Contractor shall provide, install and maintain a fully functional webcam system including an electrical power supply, camera hardware, mounting pole and equipment, data connections, image storage, online interface for the system and technical support. The Contractor is required to have the webcam system's vendor made available for support services and equipment maintenance/repairs.

ITEM 637.4000nn20 WEBCAM SYSTEM

The Contractor shall provide, install, maintain and remove the webcam system. The Contractor shall coordinate with the Engineer to install the camera in an approved location and provide password access to the webcam system's Internet site. The camera shall be installed so that the position of the sun or any man-made light source does not point directly into the camera. The camera shall be tested at the site both prior to and subsequent to installation, including having the webcam system's vendor remotely confirm both successful tests. The Contractor shall clean the installed components in accordance with manufacturer's recommendations at least monthly, or as needed to ensure image clarity.

The pole shall be installed plumb, in a hole of sufficient depth to allow for a minimum of 3.0 m embedment. The area around the pole shall be backfilled with suitable material and thoroughly compacted. The Contractor shall restore, in kind, all areas which were disturbed by the pole installation operation.

The webcam system shall consist of all-weather, tamper/impact resistant, fixed mounted camera enclosure with integrated, fixed high definition camera. The camera shall have the ability to take a high-resolution digital still color image of the construction site at a set time interval, as least every fifteen (15) minutes, and securely upload the still images to a secure, password-protected website. The image data shall at all times be the property of the State. The digital still images shall be stored on a remote server (with sufficient storage capacity to store all images taken on the contract) and be made available for viewing on the website in chronological order. The website shall provide the ability to zoom in on the images. Password access to the website shall be granted to those parties specified by the Engineer (Department staff and the Contractor, at a minimum). The Contractor shall provide the Department with an archive in DVD or external hard drive format of all the digital still images in a sortable/identifiable format. The still image file names shall include the date and time taken.

The Contractor shall maintain all equipment in working condition and shall provide replacement due to breakdown, damage, or theft within two (2) work days. The Contractor's webcam system vendor shall proactively monitor the webcam system and if no system connection is made within normal working hours, not to exceed 24 hours, the vendor shall notify the Contractor and begin troubleshooting.

The Contractor shall remove all webcam system equipment and wood utility pole within ten (10) work days after the Engineer requests the removal in writing. The webcam system equipment and pole shall remain the property of the Contractor. The State shall retain ownership of all data collected by the webcam system.

The webcam system shall be operated in accordance with the "Policy for the Operation of Webcam Systems on Construction Contracts", a copy of which will be provided to the Contractor by the Engineer.

METHOD OF MEASUREMENT

The webcam system will be measured for payment on a monthly basis, measured to the nearest 0.25 months.

BASIS OF PAYMENT

The unit price bid per month for the webcam system shall include the cost of all labor, materials and equipment, including services to provide, install, maintain and remove all components of the webcam system and wood utility pole. A deduction of 1/30 of a month will be made for each 24-hour period, or portion thereof during which the webcam system is not operational. Payment will begin the first month the webcam system is installed, operational and made available for use, including having the website established and functional. Monthly payments will be terminated no later than two (2) weeks after written notification by the Engineer that the webcam system will no longer be required.