

# Bid Specification

## Video Monitoring and Documentation

### 288 MegapixelCam Robotic

Industrial solid state embedded Linux OS platform with an ultra-efficient ARM9 CPU

Fail safe - 16GB on-board backup storage

Next-generation self-healing and auto-recovery technology

Rugged UV and cut resistant cable with military connectors

Lower-profile design to increase precision throughout its full range of motion

10/100 ethernet or transmit over 3G/4G networks

Thermostatically regulated, corrosion-resistant black enclosure

User controllable P/T/Z  
640 x 480 Live streaming video preview  
5x optical zoom

Take and share on demand snapshots of the project remotely

Daily auto-generated multi-layer 360° panoramas

Maintenance-free wiper to ensure clear images

On-board diagnostic LED system

**Specification includes camera system and managed services**



Live Video 360° User Controllable



Multiple Preset Archiving



Auto-generated Megapixel Panoramas



Current and Historical Weather Data



Automated Progress Reports



Mobile Device App



Website Development



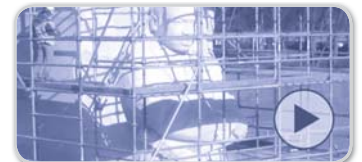
Installation and Maintenance



Quality Control and Maintenance



Full Service Support



HD Archives and Time-Lapse Movies

**Additional services included**



**EarthCam.net**  
The Webcam Technology Experts

1-800-EARTHCAM  
[www.earthcam.net/contactus](http://www.earthcam.net/contactus)



## **01.32.36 Video Monitoring and Documentation Bid Specification**

1. The Contractor shall provide a Robotic High Definition Megapixel Webcam for users to remotely view the project on a secure connection via a network connection. The camera will provide a full view of the work area on the construction site.

CONTACT SYSTEM VENDOR: EarthCam / Brian Cury +1 201.488.1111 Email: WWW.EARTHCAM.NET/CONTACTUS

2. The camera shall meet or exceed the following requirements:
  - 2.1 Thermostatically controlled IP66/IP67 rated environmentally sealed black powder coated enclosure with stainless steel hardware
  - 2.2 User controlled window wiper
  - 2.3 Industrial grade solid state embedded Linux System
  - 2.4 Ultra-precise, Pan/Tilt robotic base designed to provide consistent imaging in all environments
  - 2.5 Pan/Tilt: Pan Range 360° Continuous Pan, Tilt: +30° to -90° from level. Motor Type: Stepper
  - 2.6 Daily auto-generated multi-layer 360° panoramas
  - 2.7 9.0 Megapixel images (3456 x 2592 pixels), (1/1.7" 15.0 Megapixel CCD)
  - 2.8 Lens: F/2.8-F/4.5, Motorized Zoom 28mm-140mm, 5X Optical
  - 2.9 Auto Features: ISO, Shutter, White Balance and Focus
  - 2.10 640 x 480 live streaming video preview window
  - 2.11 Communications: 10base-T/100base-TX Ethernet, IP Addressing: Dynamic or Static
  - 2.12 3G or 4G cellular modem
  - 2.13 On-Board Data Back-Up to provide a minimum of thirty days of on-board image retention
  - 2.14 120VAC, 220-230VAC or 12VDC power
  - 2.15 Designed for EarthCam Control Center
3. Internet Based Online Interface: The camera will be accessible via an internet based Software as a Service (SaaS) solution. This online interface will be managed and supported by the System Vendor. The service will be available for the term of the project and allow the viewing of live video and High Definition digital still images captured and stored of the project via a secure password protected website.

The Internet Based Online Interface shall include the following features:

- 3.1 Display project name and logo
  - 3.2 Multiview Screen for viewing and accessing multiple cameras
  - 3.3 Real-time live video viewing
  - 3.4 User-controllable Robotic Pan, Tilt and Zoom
  - 3.5 User-controllable settings for creating and editing multiple preset compositions
  - 3.6 Automatically generated daily panoramas
  - 3.7 Onscreen control button for wiper and washer control to allow for remote cleaning of the viewing window
  - 3.8 Picture in picture capability for viewing live video and High Definition Megapixel images simultaneously
  - 3.9 Digital Pan, Tilt and Zoom capability within a High Definition images
  - 3.10 Custom tiling player to easily view High Definition panoramic images
  - 3.11 Instant live snapshot capability in addition to preset scheduled archives
  - 3.12 Calendar based navigation system for selecting specific images and times
  - 3.13 Multifunction Image Browsing
  - 3.14 Time-lapse feature for instant time-lapse viewing and image playback by day, week, month, or year
  - 3.15 Full Screen Mode for displaying complete image without any graphical frame
  - 3.16 Graphical Markup Tools for detailing and creating notes with graphical overlays on images
  - 3.17 Image Comparison Tool for comparing two images taken at different times, overlaid on top of each other
  - 3.18 Share Image Tool for saving, printing, emailing, sending to mobile devices and posting to Notes Section
  - 3.19 Notes Section for posting and sharing camera images with notes and uploading photos, videos, and files directly from a desktop or mobile device.
  - 3.20 Social Media Integration Tools for sharing project images and notes on Facebook and Twitter
  - 3.21 Graphical Weather applet displaying local weather data with satellite and updating radar imaging
  - 3.22 Integration of Google Maps, aerial and satellite imagery
  - 3.23 Data Management Tools showing archived and current system status of solar amperage, battery power remaining, wireless radio connectivity, and device location
  - 3.24 Automatically generated Progress Reports (in PDF and PowerPoint formats) using daily, or weekly camera images with associated weather data, notes, and Client logo
4. Access to account protected by Account Security feature which includes four levels of password protection, IP address block/permission and SSL protection of user login password.
  5. The system shall capture and upload images every 15 minutes, 24 hours per day.
  6. The system shall have M2M – Machine to Machine 24/7 Support with active self-healing technology and automatic software upgrades to maintain the quality, consistency and reliability of all images.
  7. Images will be maintained on the System Vendor's servers for reference available at all times during the life of the project and for no less than 60 days after completion. All images will be protected on servers owned and operated by the System Vendor and located in a secure area at the System Vendor's location.
  8. The Contractor shall provide all service and maintenance, including cleaning, of the camera system throughout the life of the project including making appropriate arrangements for camera to remain in operation up to and through finalization of all structural, landscaping and "completed state" condition necessary for beginning-to-end time-lapse record.
  9. The System Vendor shall provide custom public website development. Website shall be separate from the Online Interface, match the look and colors of the project's website, and be delivered as embed code or standalone web page. Additional features include Facebook and Twitter integration, full screen mode, image comparison, weather, multiple logos, graphical background image and project description.
  10. The System Vendor shall provide time-lapse movie(s) at the end of the project. Time-lapses shall be professionally edited by a video editor using image stabilization software. The movie will start with a graphic, incorporating project title, date and logo. Periods of bad weather or inactivity shall be removed to produce a compelling and consistent movie. A machine edited movie will not be acceptable.
  11. The Contractor shall secure a nearby structure for camera mounting or provide a fixed pole (40 foot / 12 meters height recommended) and 3 inch / 8 centimeters minimum diameter as per System Vendor's instruction. The Contractor shall supply all equipment required for safe and secure access to the camera location for technicians performing installation and maintenance services, including building access, bucket truck and/or lift. The System Vendor will consult on and provide recommendations for optimal camera placement and provide professional installation services as required.