

01.32.36 Video Monitoring and Documentation Bid Specification

1. The Contractor shall provide a Robotic Streaming Video Webcam for users to remotely control and view a live feed via 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 waterproof all-weather enclosure
 - 2.2 User controllable Pan/Tilt/Zoom designed to provide consistent imaging in all environments
 - 2.3 360° continuous pan, -90° to +90° tilt
 - 2.4 Capable of maintaining multiple preset compositions
 - 2.5 Accel-Control™ technology for faster video streaming and more responsive camera Pan/Tilt/Zoom
 - 2.6 Live streaming 16:9 1080p HD video
 - 2.7 32X Optical zoom with razor-sharp focus
 - 2.8 Auto Features: Focus and Day/Night IR
 - 2.9 IR Illumination to see up to 750 feet in total darkness
 - 2.10 Built-in motion detection
 - 2.11 H.264 and Motion JPEG video compression
 - 2.12 Up to 50/60fps in all resolutions
 - 2.13 Up to 300 Megapixels auto-generated 360° panoramas
 - 2.14 2.1 Megapixel images (1920 x 1080 pixels)
 - 2.15 Communications: RJ-45 10BASE-T/100BASE-TX PoE
 - 2.16 4G cellular modem
 - 2.17 Secure 256 bit AES encrypted onboard storage
 - 2.18 High-Definition continuous video recording with 60 days of retention (up to 1 year available)
 - 2.19 Industrial grade solid state embedded Linux System
 - 2.20 120VAC, 220-230VAC or 12VDC power
 - 2.21 Designed for EarthCam Control Center Software
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 on both mobile and desktop platforms.
The Internet Based Online Interface shall include the following features:
 - 3.1 Responsive HTML5 design for cross-platform access on desktop and mobile devices
 - 3.2 Secure HTTPS compliant with live stream secured & encrypted via https transport
 - 3.3 Display project name and logo
 - 3.4 Project Dashboard allows easy navigation between multiple cameras and projects
 - 3.5 Security Interface offers flexible multi-view camera grid selective up to 24 cameras per screen streaming simultaneously
 - 3.6 Edge Video Recorder features searchable intuitive visual timeline interface for fast incident footage retrieval and sharing
 - 3.7 Real-time live video viewing with user-controllable Robotic Pan, Tilt and Zoom
 - 3.8 User-controllable settings for creating and editing multiple preset compositions, each preset will be displayed as a thumbnail image
 - 3.9 Daily auto-generated 360° multilayer panoramas up to 300 megapixels
 - 3.10 Onscreen control button for wiper control to allow for remote cleaning of the viewing window
 - 3.11 Instant live snapshot capability in addition to preset scheduled archives
 - 3.12 Visual timeline with quick thumbnail view allows image navigation by year, month, day and hour
 - 3.13 AI-edited time-lapse technology removes frames obscured by foreign objects or weather elements, with music and graphics then added for downloadable presentations
 - 3.14 Full Screen Mode for displaying video and complete image without any graphical frame
 - 3.15 Photo Filters and Graphical Markup Tools for detailing and creating notes with graphical overlays on images, including project title, logo and time date stamp
 - 3.16 Image Comparison Tool for comparing two images taken at different times, overlaid on top of each other
 - 3.17 Project Management Software integration (Autodesk Construction Cloud, Autodesk Build, CMiC, Esri, InEight, Infotech, Procore, Projectmates, Raken, Salesforce)
 - 3.18 3D/4D Model Integration (Autodesk Navisworks, Autodesk Revit, Bentley Synchro)
 - 3.19 Social Media Integration Tools for sharing project images and notes
 - 3.20 Automatically generated daily/weekly project progress update email with camera image and weather
 - 3.21 AI Media Dashboard – Interactive charts display AI-detected events and observations
 - 3.22 Graphical Weather applet displaying local weather data with satellite and updating radar imaging
 - 3.23 Integration of maps, aerial and satellite imagery
 - 3.24 Graphical Data Management Tools showing archived and current system status of solar amperage, battery power remaining, wireless radio connectivity, and device location
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 5 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 a scalable, responsive, cross-platform camera media viewer. Camera viewer to include 40 features with capability to be personalized based on client preference for a total of 720 customizable options. Viewer shall be delivered via embed code or in a standalone web page. Additional features include instant access to AI-Edited, presentation-ready videos, Facebook and Twitter social media integration, full screen mode, image comparison, weather data, multiple logos, graphical background images and customizable project description.
10. The System Vendor at the end of the project shall provide a comprehensive archive package that includes all images, historical weather data, AI-generated time-lapse movies and a royalty-free web-based viewer software. The software shall include the same interactive interface as the live camera during the project.
11. The System Vendor shall provide hand-edited 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 an appropriate music track, custom graphic, incorporating your project title and company logos. Periods of bad weather or inactivity shall be removed to produce a compelling and consistent movie from start to finish. A machine edited movie will not be acceptable.
12. 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.