**EarthCam Work Zone Cam Pro Model #WZ24PRO A&E Specifications**

**01.32.36 Video Monitoring and Documentation**

1. **CAMERA SPECIFICATIONS**
	1. **Contractor Contact Information**

The Contractor shall provide a 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 Inc. / Brian Cury +1 201.488.1111

Email: WWW.EARTHCAM.NET/CONTACTUS

* 1. **Camera System for Highest Precision Monitoring and Documentation**
		+ 1. Thermostatically controlled enclosure
			2. Powder coated aluminum housing with stainless steel fittings for padlocks
			3. DSLR camera with 24 Megapixel images (6000 x 4000 pixles), ASP-C Imager
			4. Angle of view: wide 96° horizontal - 73° vertical, full zoom 22° horizontal – 15° vertical
			5. Auto Features: ISO speed, metering mode, white balance, and focus
			6. EF-S 10-22mm f/3.5-4.5 ultrasonic motor lens
			7. Professional photo grade lens window
			8. Omni-directional power indicator lamp will illuminate green
			9. Two UL rated compression glands, gas spring lid, adjustable camera sled
			10. Compression: JPEG/RAW
			11. 32GB onboard storage
			12. Communications:10base-T/100base-TX Ethernet, IP Addressing: Dynamic or Static
			13. Wireless Cellular 4G LTE Modem with GPS and antenna
			14. Multi SIM card support for mobile carrier diversity
			15. 4W @ 120VAC, 230VAC or 12VDC Solar Power
			16. Battery, LiFePO4 chemistry, 9.9Ah
1. **SERVICE SPECIFICATIONS**
	1. **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:

* + 1. Responsive HTML5 design for cross-platform access on desktop and mobile devices
		2. Display project name and logo
		3. Project Dashboard allows easy navigation between multiple cameras and projects
		4. Digital Pan, Tilt and Zoom capability within a High Definition image
		5. Visual timeline with quick thumbnail view allows image navigation by year, month, day and hour
		6. AI-edited time-lapse technology removes frames obscured by foreign objects or weather elements, with music and graphics then added for downloadable presentations
		7. Photo Filters and Graphical Markup Tools for detailing and creating notes with graphical overlays on images, including project title, logo and time date stamp
		8. Image Comparison Tool for comparing two images taken at different times, overlayed on top of each other
		9. Share Image Tool for saving, printing, emailing and posting to Hall of Fame
		10. Project Management Software integration (Autodesk Construction Cloud, Autodesk Build, CmiC, Esri, InEight, Infotech, Procore, Projectmates, Raken, Salesforce)
		11. 3D/4D Model Integration (Autodesk Navisworks, Autodesk Revit, Bentley Synchro)
		12. Social Media Integration Tools for sharing project images and notes
		13. Automatically generated daily/weekly project progress update email with camera image and weather
		14. AI Media Dashboard – Interactive charts display AI-detected events and observations
		15. Graphical Weather applet displaying local weather data with satellite and updating radar imaging
		16. Integration of maps, aerial and satellite imagery
		17. Graphical Data Management Tools showing archived and current system status of solar amperage, battery power remaining, wireless radio connectivity, and device location
	1. **Security and Management**
		1. 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.
		2. The system shall capture and upload images every 15 minutes, 24 hours per day.
		3. 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.
		4. 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.
1. **CONTRACTOR REQUIREMENTS**
	1. **Jobsite Requirements**

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.

* 1. **Camera Maintenance**

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.

1. **DELIVERABLES**
	1. **Public Website**

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.

* 1. **End of Project**

The System Vendor at the end of the project shall provide a comprehensive archive package that includes all images, historical weather data, computer-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.

* 1. **End of Project Time-Lapse Movie**

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.