

# Bid Specification

## Video Monitoring and Documentation

### Mobile TrailerCam Advanced ConstructionCam 4K

Specification includes camera system and managed services



Daily Megapixel Panoramas



360° User Controllable



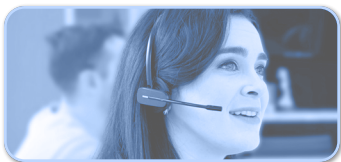
Multiple Preset Archiving



Installation and Maintenance



Current and Historical Weather Data



Full Service Support

Edge Video Recorder (EVR) -  
up to 120 days of HD continuous  
video recording

256bit AES encrypted  
onboard storage

Rugged UV and cut resistant  
spiral conduit for cable  
deployment

Heavy duty galvanized steel  
construction

Guy wires

Full size spare tire

Low maintenance AGM  
sealed battery  
75 Amp battery charger



AI Media Dashboard



iOS and Android App



Continuous Video Recording

User controllable 360° robotic  
Pan/Tilt/Zoom camera with multiple  
preset composition

16:9 full-frame live HD video

12x optical, 12x digital zoom

Up to 500 Megapixels auto-  
generated 360° panoramas

Maintenance-free digital wiper  
to ensure clear images

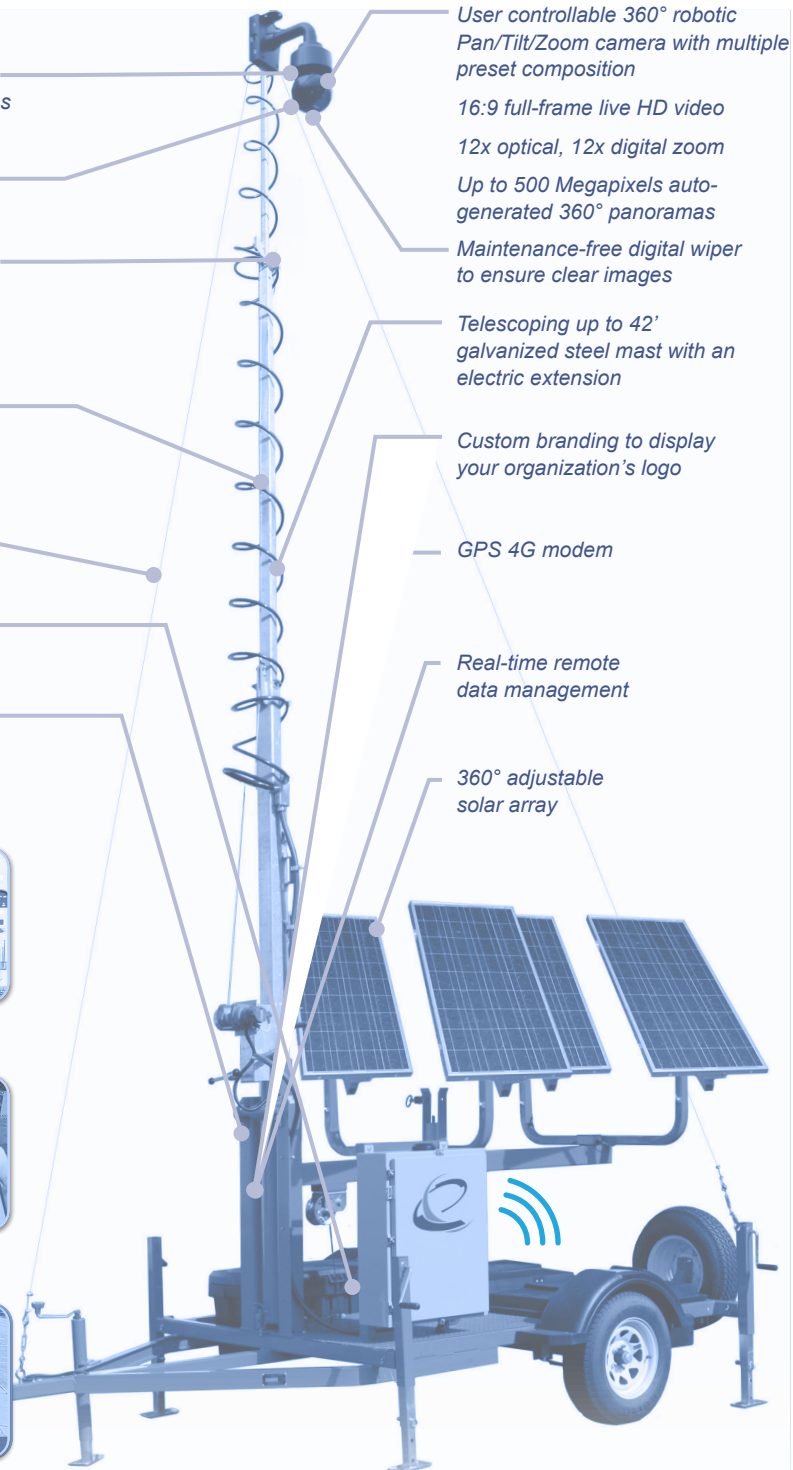
Telescoping up to 42'  
galvanized steel mast with an  
electric extension

Custom branding to display  
your organization's logo

GPS 4G modem

Real-time remote  
data management

360° adjustable  
solar array



Additional services included



**EarthCam.net**  
The Webcam Technology Experts

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



## EarthCam Mobile Trailer Cam Advanced – ConstructionCam 4K Model # ECCS99288

### 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 trailer camera system shall meet or exceed the following requirements:
  - 2.1 Dimensions: 15.5' L x 7.1' W x 7.2' H (4.57m L x 1.13m W x 2.2m H)
  - 2.2 Weight: 2800lbs (1270kg)
  - 2.3 Single torsion-type axle steel welded trailer with 2" adjustable ball hitch manual outriggers
  - 2.4 DOT approved lighting package to include brake and marker lights
  - 2.5 Solar powered and wireless
  - 2.6 Low maintenance 6Volt DC deep cycle AGM batteries, 75 Amp battery charger
  - 2.7 150 watt polycrystalline silicon photovoltaic solar modules
  - 2.8 Trailer mounted locking manual/motorized up to 42 foot telescoping mast with spiral conduit for cable deployment
  - 2.9 Full size spare tire
  - 2.10 Guy wires to stabilize an extended mast and steady camera shot
  - 2.11 IP66/NEMA weather resistant aluminum enclosure with an polycarbonate clear dome
  - 2.12 Industrial grade solid state embedded Linux System
  - 2.13 Maintenance-free digital wiper to ensure clear images
  - 2.14 Precise Pan/Tilt/Zoom controls designed to provide consistent imaging in all environments
  - 2.15 Capable of maintaining multiple preset compositions
  - 2.16 Live video stream in H.264 format
  - 2.17 4K broadcast quality video clip capability
  - 2.18 H.264, MPEG-4 Part 10/AVC, Motion JPEG video compression
  - 2.19 50/60fps at 1080p, 25/30fps at 4K resolution
  - 2.20 8.3 Megapixel images (3840 x 2160 pixels)
  - 2.21 Up to 500 Megapixels auto-generated 360° panoramas
  - 2.22 Lens: 3.9 – 46.8mm, f/1.8 – 2.0, 20X Optical, 12X Digital
  - 2.23 Pan/Tilt: Pan Range 360° Continuous Pan, Tilt: +20° to -90°
  - 2.24 Auto Features: Focus and Day/Night
  - 2.25 Communications: RJ-45 10BASE-T/100BASE-TX PoE
  - 2.26 4G cellular modem
  - 2.27 Secure 256-bit AES Encrypted onboard storage
  - 2.28 High-definition continuous video recording with 120 days of retention (up to 1 year available)
  - 2.29 Custom branding to display company logo
  - 2.30 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 9 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 Onscreen control button for digital wiper control to allow for remote cleaning of the viewing window
  - 3.9 User-controllable settings for creating and editing multiple preset compositions
  - 3.10 Daily auto-generated 360° panoramas up to 500 megapixels
  - 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 (Aconex, Autodesk Construction Cloud, Autodesk Build, CMiC, InEight, Infotech, PlanGrid, Procore, 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 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 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.
  11. 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.
  12. The Contractor shall secure a nearby space to deploy the trailer 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 lane closures, 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.