The following specifications define the minimum acceptable characteristics for color, pan-tilt-zoom (PTZ), CCTV cameras used by the Colorado Department of Transportation in their wide area traffic surveillance applications. These cameras are to be of “dome” type construction, where the camera, control signal receiver, and pan-tilt-zoom mechanism are constructed as a single integral unit. This camera dome shall have a diameter, which is less than 5 inches, and a height, which is less than 8 inches. Please note that these maximum dimensions are for the dome camera unit, and do not include the dimensions of the environmental enclosure (described at the end of this specification).

**SPECIFICATIONS: (Camera)**

- Mean Time Before Failure …….. 50,000 hours (minimum)
- Scanning Area ………………….. ¼” (maximum)
- Effective Pixels ……………….. 768(Horizontal) X 494 (Vertical)
- Horizontal Scanning Frequency … 15.734 Hz.
- Vertical Scanning Frequency ……… 59.94 Hz.
- Synchronization ……………….. Internal / Line Lock / Multiplexed Vertical Drive
- Video Output ………………….. 1 Volt (peak to peak)
- Horizontal Resolution …………… 480 lines at center (minimum)
- Signal to Noise Ratio …………… 50 db (minimum)
- Minimum Illumination ………… 0.06 lux (at B/W) , 1.0 lux (maximum) for color.
- Electronic Sensitivity Enhance …. 32X (minimum)
- Iris …………………………… Automatic / Manual
- Optical Zoom Ratio …………… 22X (minimum)
- Electronic Zoom ………………… 10X (minimum)
- Panning Range ………………… 360 degrees (endless)
- Manual Panning Speed ………… Adjustable from 0.1 degree / second to 120 degrees / second.
- Preset Mode Panning Speed …… 280 degrees / second (minimum)
- Tilting Range ………………….. 0 degrees to 180 degrees (minimum)
- Manual Tilting Speed ………….. Adjustable from 0.1 degrees / second to 120 degrees / second
- Preset Mode Tilting Speed ……… 280 degrees per second (minimum).
- 90 Degree Tilt Picture Flip …… Electronic Display Flip (No mechanical camera rotation at 90*)
- Number of Preset Positions …… 64 (minimum)
- Data Communication Port …….. RS-485 compatible
- Power Source …………………. 24 VAC, 60 Hz, 18 Watt (maximum)
- Ambient Operating Temperature .. –20 degrees F. to +122 degrees F. (In environmental enclosure)
- Built-in Alphanumeric Display …. Yes
- Built-in Auto Focus …………….. Yes
- Built-in Motion Detector ……….. Yes
- Display Privacy Zone Masking …. Yes
- Automatic Backlight Compensation Yes
SPECIFICATIONS: (Environmental Enclosure)

The outdoor dome camera housing shall have provision for either wall or pole mounting. The enclosure shall enhance the ability of the camera to withstand exposure to temperature, moisture, dust, and other contaminants. The upper dome shall be constructed of UV stable white plastic, steel, or acrylic. The lower dome shall be made of distortion free acrylic. The lower dome shall not be more than 7 inches in diameter. The enclosure shall contain an electric 50 watt (min) heater with a thermostat for temperature control. The enclosure shall contain a blower that is on continuously to aid in the heating and cooling of the camera. The enclosure shall clamp the incoming AC power to 300 volts or less. Common mode video clamping shall be 72 volts or less. The dome weight shall not exceed 7 pounds (without camera).