

BOSTON TRANSPORTATION DEPARTMENT
Specification for Video Based Multiple Camera Sensor System

November 24, 2021

The video sensor system shall consist of a shelf mounted processor unit and a minimum of one fisheye 360-degree camera. The camera(s) shall have built-in heaters. The processor shall include front panel LEDs to include calls and system status.

The system shall be programmable locally or remotely via a network connection. It shall be possible to disable the cloud connection to the processor with no loss of local functionality. The remote access shall include the ability to view live video from the detection camera(s). It shall be possible for BTM to define system user privileges to admin., programming or view only. There shall be no recurring license fees.

The unit shall be capable of supporting two (2) 360-degree cameras or up to eight (8) traditional cameras.

The programming of detection zones shall include the following features:

- a) Road Masks shall be programmable to eliminate areas in the camera view which do not require object tracking. Object masks shall be programmable to cover objects that block or interfere with the camera view of the roadway such as signal heads or mast arms.
- b) Flow direction shall be programmable to minimize detection of vehicles headed away from the desired detection area.
- c) Visibility detection shall be available to generate constant calls when due to fog, glare or similar events, the camera is unable to provide reliable detection.

The video presence sensor shall be designed to operate as required by NEMA TS2 specifications. Operating temperature shall be from -29 to +165 degrees F at 0% to 95% relative humidity, non-condensing. Outputs shall activate phases on an ATC or NEMA TS2 controller configured according to BTM specifications.

A manual for set up and trouble shooting of the system shall be supplied.

The system shall include a warranty by its manufacturer for three (3) years from the date of installation. During the warranty period, software updates shall be made available to BTM at no additional cost.

Training sessions shall be conducted by the supplier in the setup and troubleshooting of the system. Eight (8) hours of training shall be provided at a location and during periods to be approved by the Boston Transportation Department Engineer.