Access Road Vehicle Classification Design Checklist

Tick each item for every count point before the camera design review, and note the camera position next to any item that fails.

SITE _____ DATE _____ COMPLETED BY _____

01 Cameras

- [ ] Each camera is 2 MP at minimum, 4 MP recommended
- [ ] Main stream runs at 15 fps minimum, 25 fps recommended
- [ ] Outdoor units rated IP66, cabinets IP66 with IK08
- [ ] Operating range of -20 to +60 °C for summer heat
- [ ] WDR of 120 dB where headlights face the lens

02 Placement

- [ ] 107 PPM at the vehicle for classification
- [ ] Classification within 15.6 m on 2 MP or 20.8 m on 4 MP
- [ ] Tilt 10 to 25 degrees below horizontal, 40 at most
- [ ] One camera per carriageway, about 11 m of road width at the limit

03 Light

- [ ] 20 lux at the target for classification
- [ ] 10 lux at the target for counting alone

- [ ] Night light checked on both carriageways

04 Camera Settings

- [ ] Smart codec off on the analytic stream
- [ ] Constant bit rate
- [ ] Minimum shutter set by hand
- [ ] Privacy masks off on the analytic stream
- [ ] NTP time sync within one second

05 Network And Server

- [ ] Cameras on an isolated VLAN with no internet route
- [ ] Switch uplink below 70 percent at peak
- [ ] Latency under 20 ms and packet loss under 0.1 percent
- [ ] Server on a UPS with 15 minutes of hold-up
- [ ] Server room under 35 °C

06 Validation

- [ ] Pilot counts compared with a manual classified count by class and hour
- [ ] Retention period for count data decided
- [ ] Dashboard roles assigned to each team