



GRIDSMART[®] INTERSECTION DESIGN GUIDE

02/19/2019

Simple Intersection Design - Corner Mount

Most four-way intersections can be actuated with a single fisheye camera mounted on the corner at least 30' (9m) above the roadway. Larger intersections may require two cameras.



See the following page for a complete equipment list for this intersection.



Minimum height requirements are easily achieved using existing infrastructure.



Corner Mount Equipment List



GS-3-SMK

- Bell Camera
 - Cable and ball mount, pre-installed
- Pole Assembly
 - Two section assembly, 10' x 3'
- Junction Box

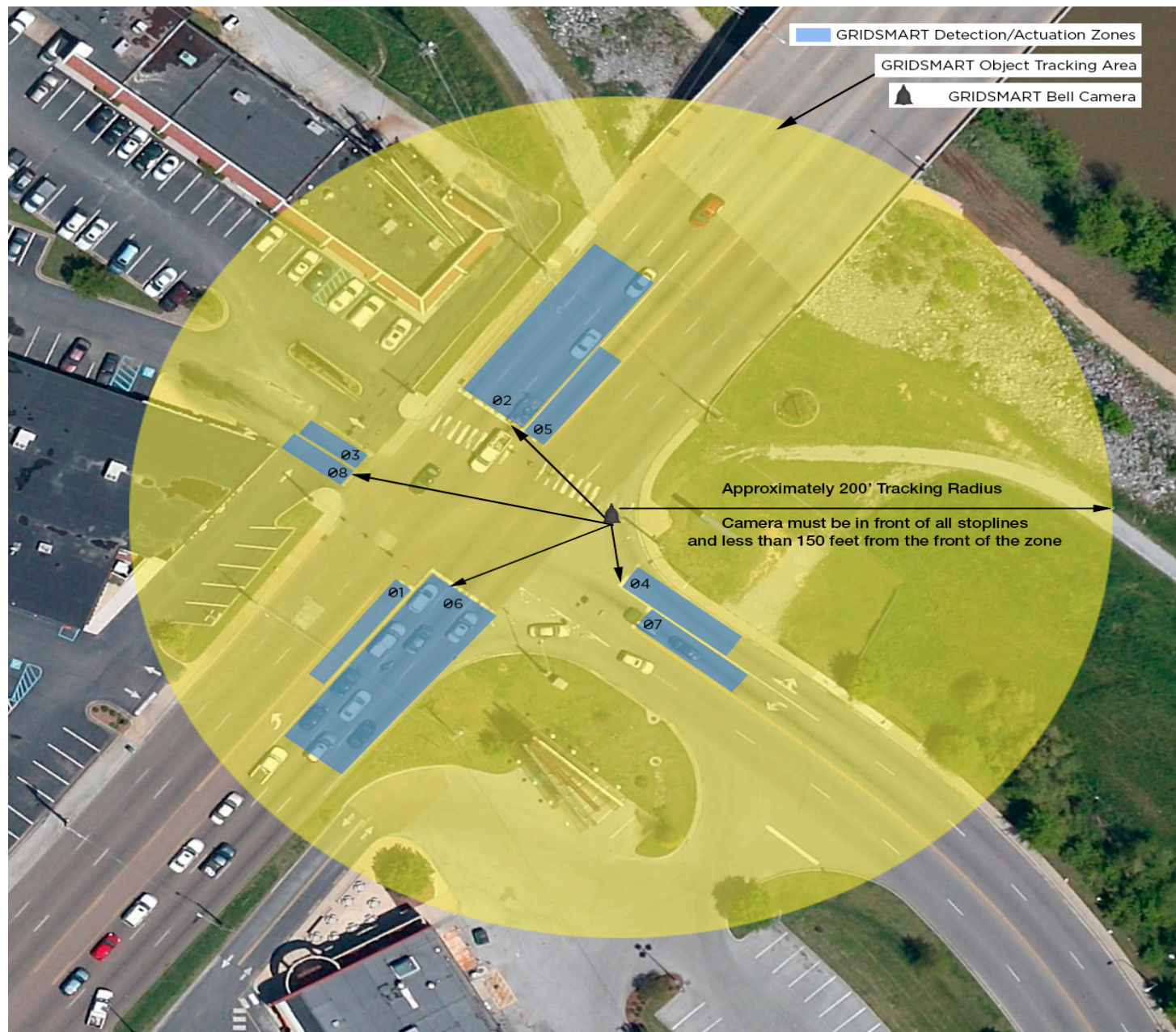


GS-3-TEN

- Astro-Brac Tenon (AB-3004) or equivalent

For single camera installations, the GRIDSMA[®] Bell camera should be mounted at least **30** feet above the roadway, no more than **75** feet from the center of the intersection, and no more than **150** feet from the front of the furthest stopline. **Camera MUST be in front of all stoplines.**

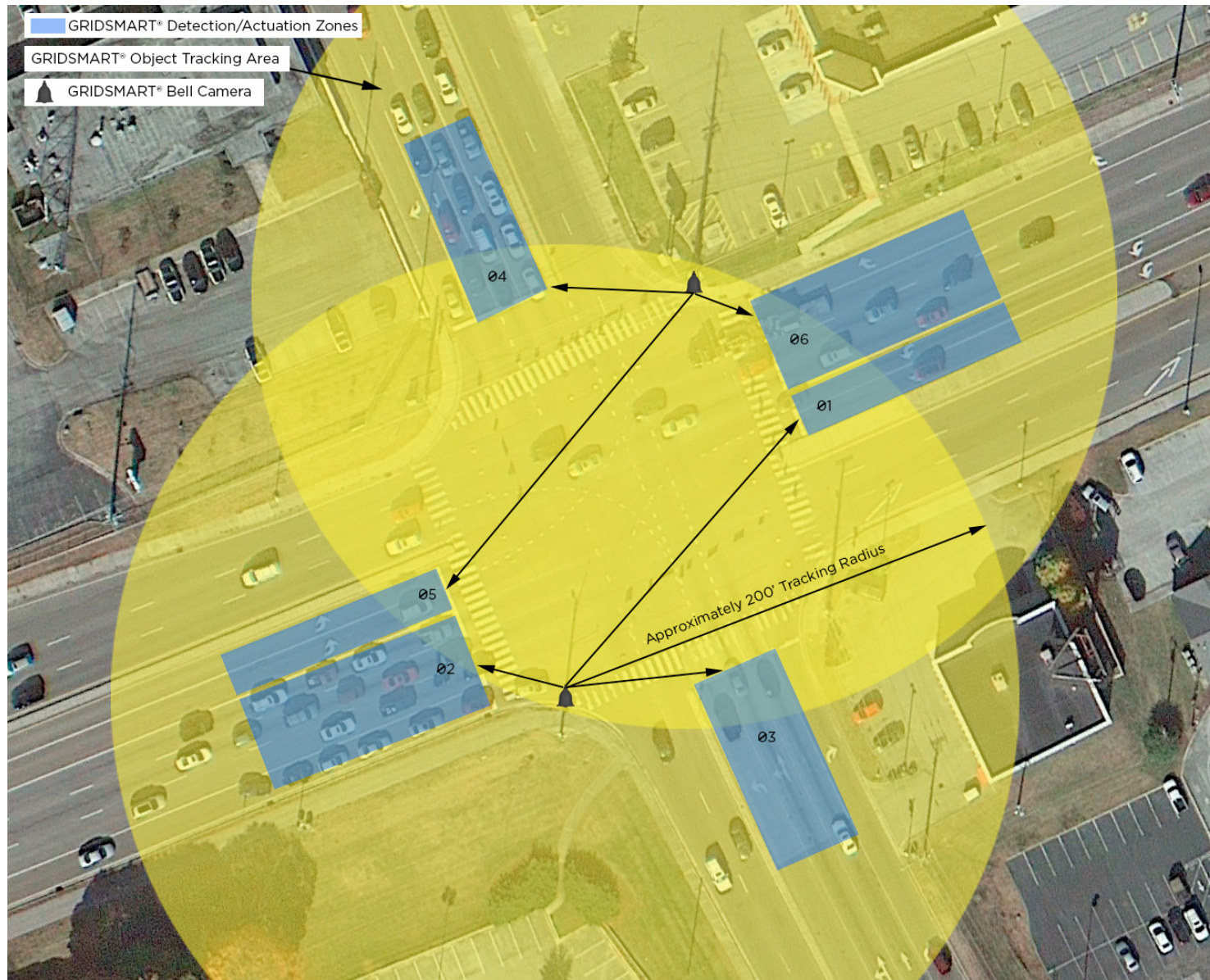
Simple Intersection Design - Coverage & Detection



Large Intersection Design - Dual Cameras



Large Intersection Design - Dual Cameras



Bell Camera Corner Mount Equipment List



GS-3-SMK

- Bell Camera
 - Cable and ball mount, pre-installed
- Pole Assembly
 - Two section assembly, 10' x 3'
- Junction Box



GS-3-TEN

- Astro-Brac Tenon (AB-3004) or equivalent

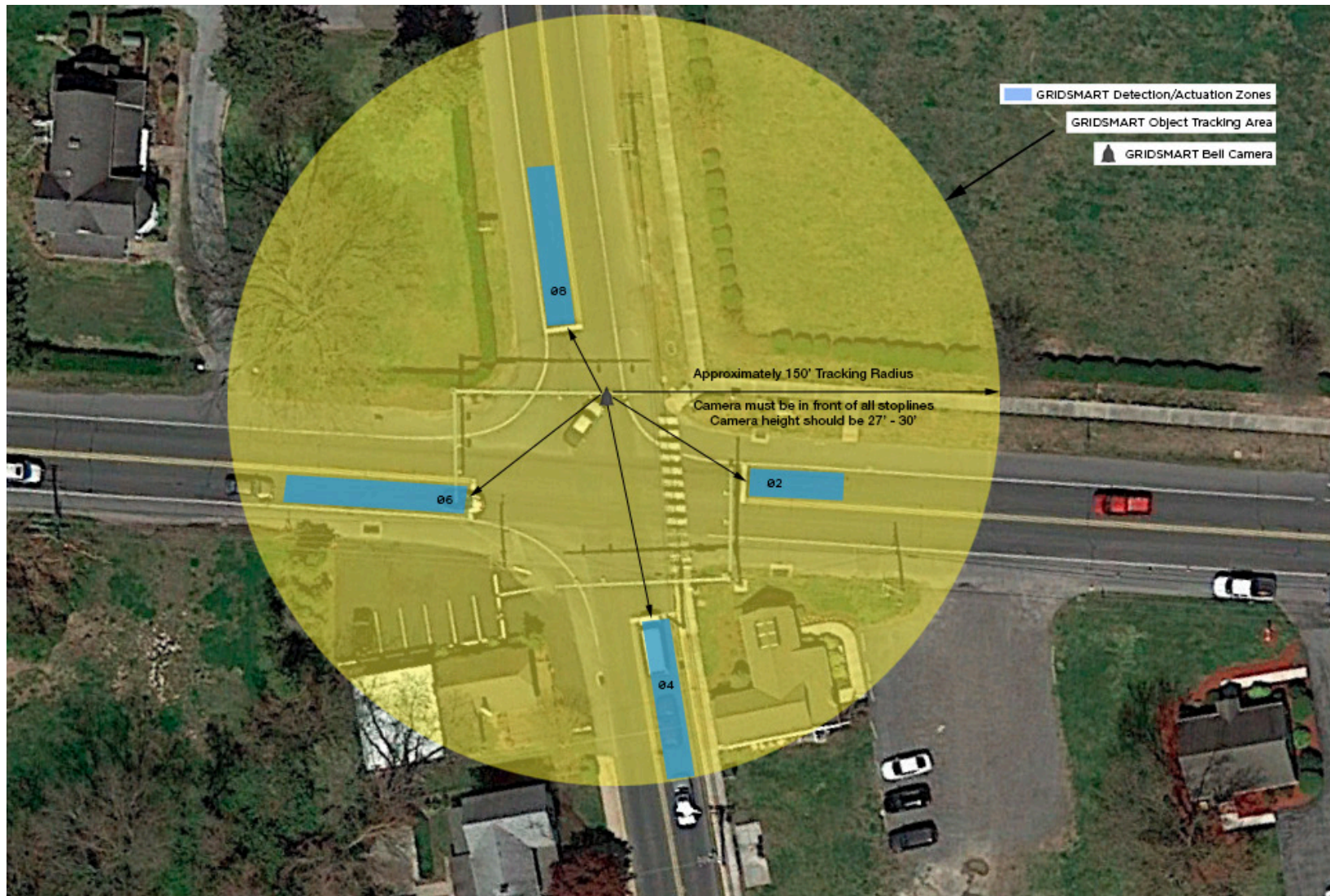
Note.

Dual camera installations offer the designer more options for larger intersections, however, the GridSmart® Fisheye camera should still be mounted at least 30 feet above the roadway, and no more than 150 feet from the front of the furthest stopline.

Intersection Design - Bell Camera Mast Arm Mount



Intersection Design - Bell Camera Mast Arm Mount



Note.

The lower the Fisheye camera is mounted, the shorter the tracking distance. When utilizing a mast arm, the camera should be no more than 50 feet from the center.

Bell Camera Mast Arm Mount Equipment List



GS-3-SMK

- Bell Camera
 - Cable and ball mount, pre-installed
- Pole Assembly
 - Two section assembly, 10' x 3'
- Junction Box

GS-3-TEN or BND or CBL

- Astro-Brac Tenon (AB-3010) or equivalent
- Astro-Brac Banded (AB-3004) or equivalent
- Astro-Brac Cable (AB-3009) or equivalent

Note.

Intersections containing mast arms may at times be used instead of a luminaire corener mount. While it is recommended to adhere to the GRIDSMART® height specification, the camera may be slightly lower than the stated 30 feet. Note, all other specifications (distance to the center and distance to stopbar) remain unchanged for the zones configured in each camera.

Intersection Design - Advanced Detection

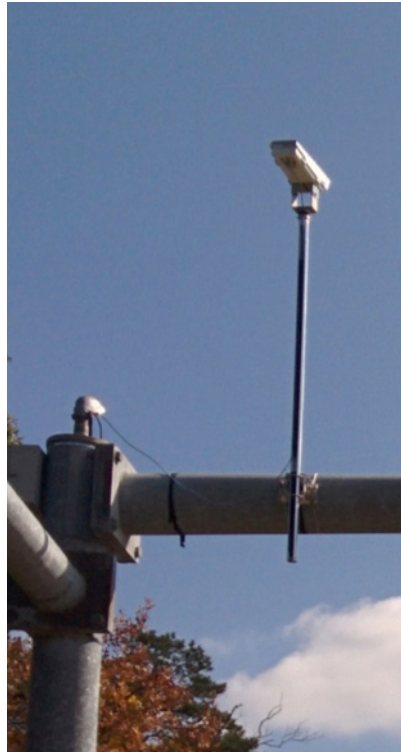


Intersection Design - Advanced Detection



GRIDSMART® Advance co-mounted with the GRIDSMART® Bell Camera.

Advanced Camera Mount Equipment List



GS-3-TCA

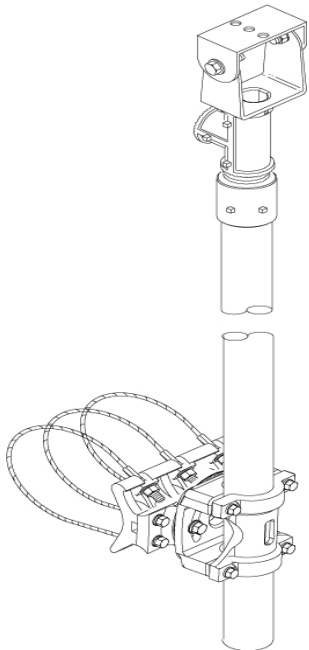
- GRIDSMART® Traditional Advance Camera

Mounting Arm

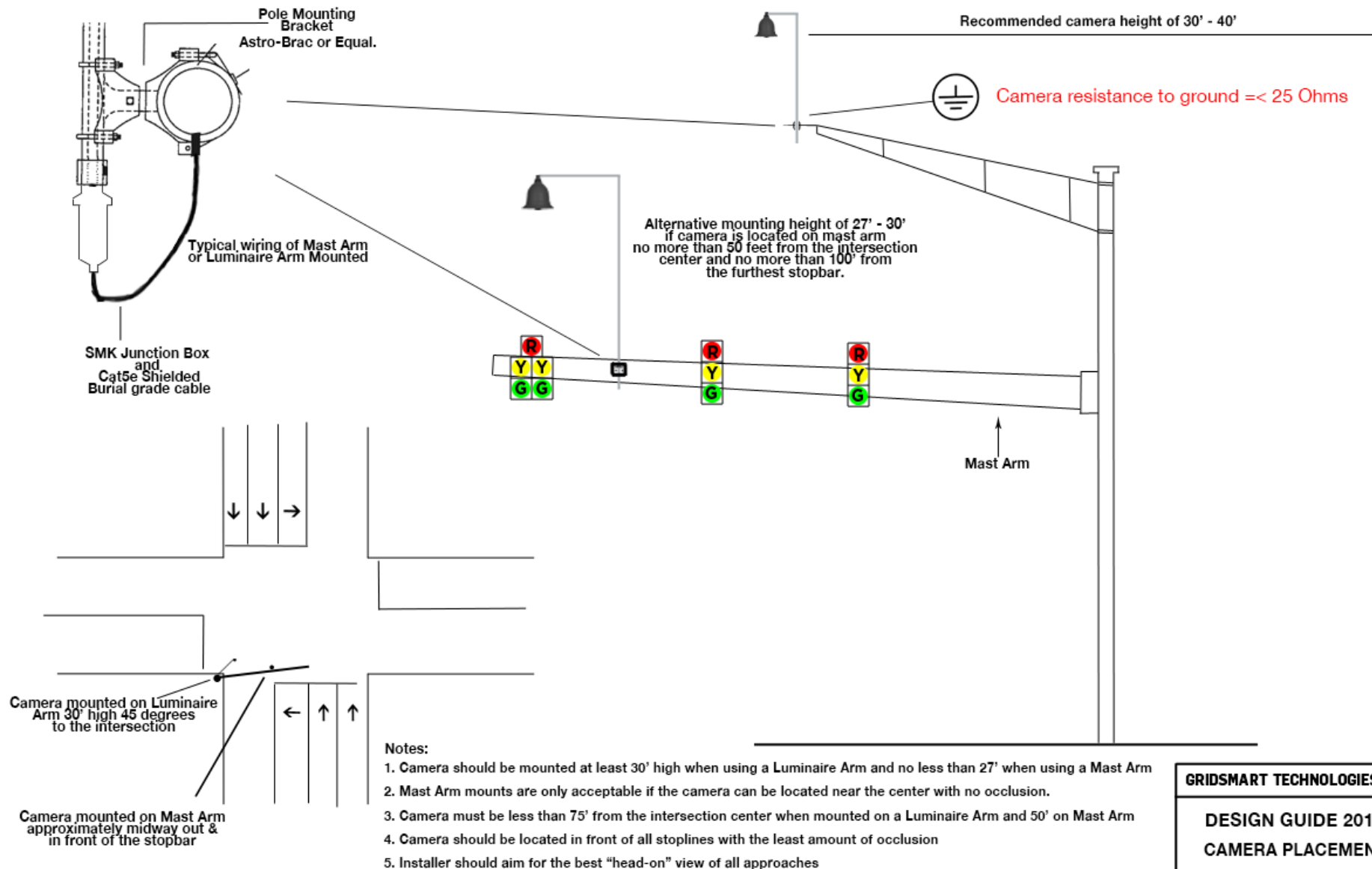
- existing mounting arm may be used
- Pelco Triton Camera Mount may also be used

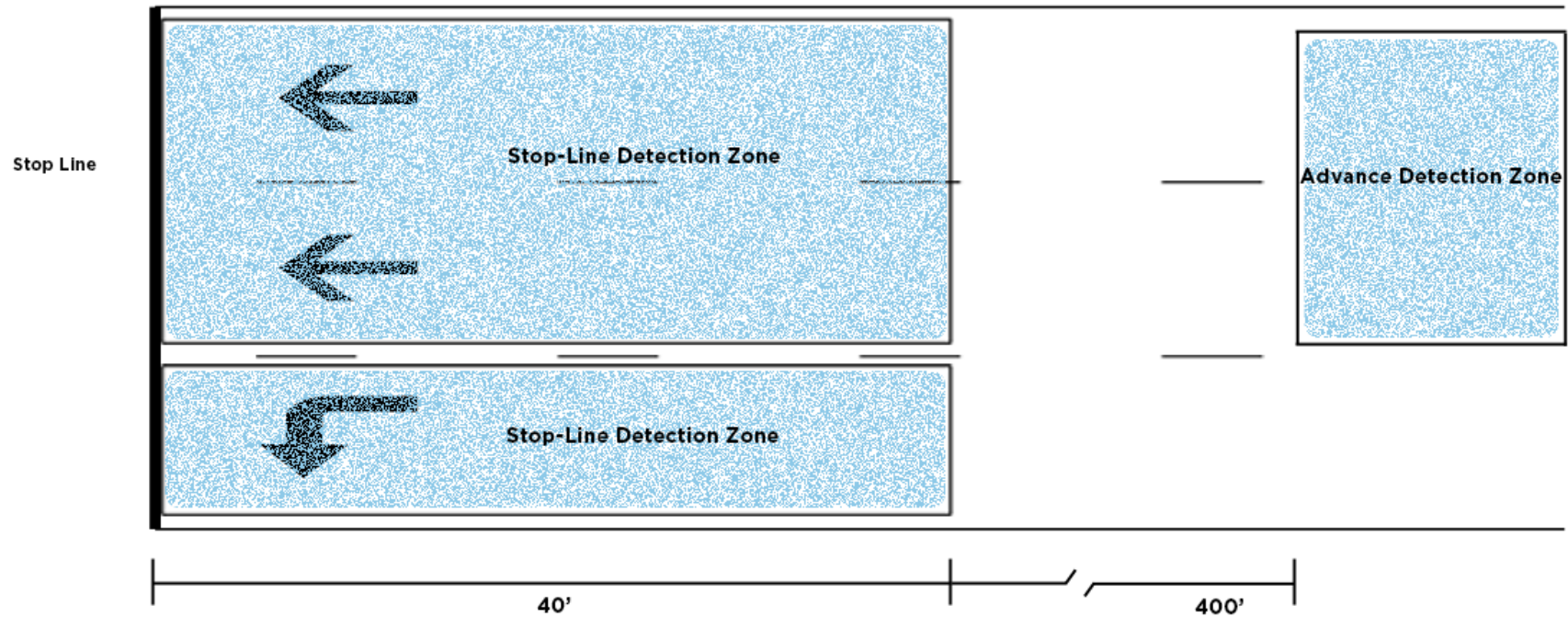
GS-3-TEN or BND or CBL

- Astro-Brac Tenon (AB-3010) or equivalent
- Astro-Brac Banded (AB-3004) or equivalent
- Astro-Brac Cable (AB-3009) or equivalent



Pelco Triton Mount





Detection Zones

1. Stop-Line detection zones should be approximately 3-4 car lengths
2. A single detection zone should cover all lanes for each phase
3. Detection zones should NOT overlap
4. Assign Phase Inputs to wired phases ONLY, i.e. Stop-Line Presence Zones
5. The front of the Stop-Line Zone (i.e. the stop line), should be no more than 150' from the camera
6. The front of the Advance Zone should be no more than 400' from the camera

GRIDSMART TECHNOLOGIES INC.

DESIGN GUIDE 2018
ZONE PLACEMENT

