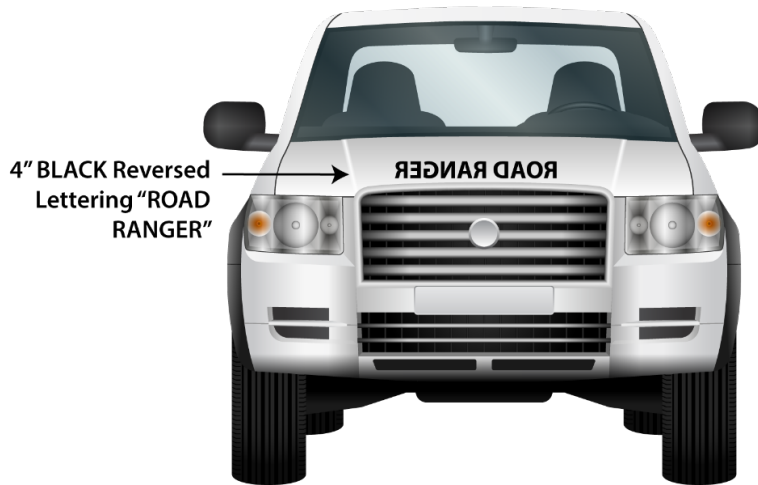


ATTACHMENT III

Road Ranger Service Patrol

Vehicle Markings, Logos, and Conspicuity Requirements

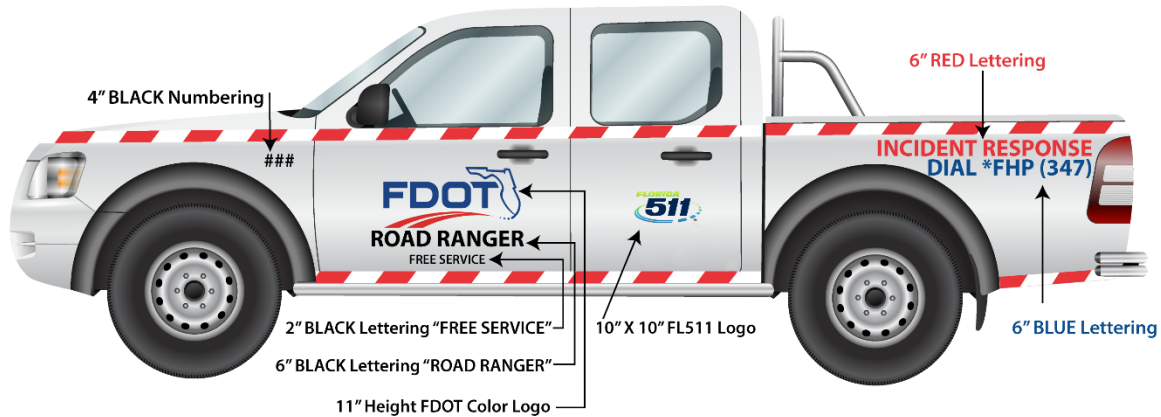
Front View



Rear View



Side View



Requirements for Vehicle Markings Products

Product Company	Color and Serial Number	Use
Avery Dennison® or equivalent	Cardinal Red (SW900-433-0) ¹ or equivalent	For the upper cab around windows from conspicuity up, 6" piece on the front of the roof, and sides of the hood from conspicuity up
3M™ or equivalent	Red (680CR-72) with Comply™ adhesive ² or equivalent	For all other Red on the vehicle
3M™ or equivalent	Blue (680CR-75) with Comply™ adhesive ² or equivalent	For all Blue on the vehicle
3M™ or equivalent	White (680CR-10) with Comply™ adhesive ² or equivalent	For all White on the vehicle (white stripes on sides install as one graphic, not separate pieces)
3M™ or equivalent	Black (680CR-85) with Comply™ adhesive ² or equivalent	For all Black on the vehicle
3M™ or equivalent	White (680CR-10) with Comply™ adhesive ² or equivalent	For all printed graphics with laminate
3M™	Red/White (983-326) ³ or equivalent	For conspicuity markings
3M™ or equivalent	Yellow/Green (983-23NLES 6150) ⁴ or equivalent	For rear chevron
3M™ or equivalent	Red (983-72NLES 6150) ^{3,4} or equivalent	For rear chevron

References

¹<https://graphics.averydennison.com/content/dam/averydennison/graphics/na/en/documents/Product-Data-Sheets-NA-ONLY/SandC/vehicle-wrapping/supreme-wrap-film/pds-sw-900-wrapping-film.pdf>

²<https://multimedia.3m.com/mws/media/538421O/3mtm-scotchlitetm-removable-reflective-graphic-film-680cr-pb.pdf>

³<https://multimedia.3m.com/mws/media/1241053O/3m-diamond-grade-conspicuity-series-983-trucks-and-trailers.pdf>

⁴<https://multimedia.3m.com/mws/media/282921O/pb-983-3mtm-diamond-gradetm-conspicuity-markings-series-983.pdf>

Truck Mounted DMS

- Minimum 10" character LED changeable message sign, with minimum 2 lines and 8 characters per line
- Large characters height (up to 4 characters) of 23"
- 650+ feet of legibility
- User programmable with multiple messages and capable of storing pre-programmed messages for rapid deployment
- Each message able to display up to three (3) pages or panels
- Link function enables up to five (5) messages, or up to fifteen (15) pages/panels to alternate
- Handheld or mounted control keypad with all programming and message selections
- Outside dimensions of 75" x 30" x 5"
- Sturdy welded aluminum frame
- The DMS mount shall be a swivel mount that provides the capability of swiveling the sign (DMS) display 360 degrees in any direction to improve its visibility and allow for additional options of vehicle positioning
- Scratch resistant, UV stabilized polycarbonate window
- Must have arrow use capability
- No PC/laptop required for programming or message selection function

Any and all equipment shall be securely attached and, when appropriate, in reach of the driver without distraction to driving safely.

Emergency Lights

The CONTRACTOR shall install in all RRSP vehicles emergency lights and a light bar capable of displaying lights on the front, side, and rear, even when the DMS is actuated. The front-facing light(s) shall be only amber and/or white in color. The rear-facing light(s) shall be a combination of red and white colored lights. The flashing red color shall be predominant with some flashing white light to break the pattern in the light bar. The light bar must meet the Society of Automobile Engineers (SAE) J595 requirements. The emergency lighting system shall have the ability to adjust (change) the flash pattern based upon event or inputs from the RRSP vehicle OBDII port (example events could include if the RRSP vehicle is stopped, door open, speed of vehicle, or auto adjusting during nighttime operations). The emergency lighting system must include an ambient light sensor. The daytime light bar intensity shall be set between 70% to 85% of duty cycle and nighttime intensity shall be set between 25% to 35% of duty cycle when the RRSP vehicle is on-duty responding to an incident and approaching/leaving/parked on the roadway.

The CONTRACTOR may add additional locations where emergency lights may be placed if such a layout is approved by the DEPARTMENT. The RRSP vehicle emergency light layout, configuration, and flash patterns shall be approved by the DEPARTMENT prior to the start of the term of the Agreement.

Entire RRSP Vehicle:

- Lightbar that meets the above listed requirements.
- Emergency light control system capable of meeting the above listed requirements.

Front of Vehicle:

- Have a minimum of two emergency lights in the grill of the vehicle.

Side of Vehicle:

- Have a minimum of at least one (1) emergency light placed towards the front of the vehicle
- Have a minimum of at least two (2) emergency light placed between the vehicle doors
- Have a minimum of at least one (1) emergency light placed toward the rear of the vehicle

Rear of Vehicle:

- Have a minimum of two emergency lights attached to the rear of the vehicle

Approved DMS Messages

Only DEPARTMENT approved messages shall be displayed on the truck mounted DMS at any time while in operation. Customized messages for special events or circumstances shall require approval by the Department prior to displaying the sign. These messages should be pre-programmed in the DMS to avoid misspellings or misuse of the sign during daily use.