



TC012:2019

Designated Standing and Walking Surface Yellow Line Standard



Prepared by the FAMA Technical Committee

This guide does not endorse any manufacturer or product



Designated Standing and Walking Surfaces Yellow Line Placement

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Intent of the Requirement

For those times when working on top of the apparatus cannot be avoided, the NFPA standards have defined that the best approach is for apparatus manufacturers to designate areas where standing or walking may be allowed when absolutely required for operational needs. These designated areas will be outlined by a yellow or orange line around the perimeter of the surface, and that surface must meet the slip resistance requirements of the standard. This approach is similar to the lines on a factory floor that show where personnel should walk to stay away from potentially hazardous operations or equipment.

The intent of the standard in specifying the yellow or orange line is two-fold. The first is to aid in training new firefighters on where they should and should not be when operating at height. The second is to provide a visual aid in determining when an operator is approaching the edge of the designated surface

The standard specifically excludes a designating line for steps or ladders as those features are apparent by design. Requiring lines around every step would be excessive.

SERVICE ACCESS EXCLUDED

It is important to note that designated standing and walking areas do not need to include areas where access will be limited to service or maintenance needs. These functions can be performed in controlled environments and with the use of ladders, non-slip mats, fall protection devices, and other means to ensure safety. Of course the fire department may determine that in their operations service access areas should also be designated. This can be specified by the department as desired.

SURFACE HEIGHT REQUIREMENT

The NFPA 1901 standard indicates that a line is only required at heights above 48 inches (4 feet). This value was drawn from the Occupational Safety and Health Administration (OSHA) requirements found in Title 29 of the code of Federal Regulations. While these regulations contain many details that vary according to industry, a 4 foot high surface is generally where they begin requiring a 42 inch tall railing in working facilities and the construction of work sites.



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LINE CONFIGURATION

How the standing and walking area(s) are designated may be met in a variety of ways. The designating line is not required where physical features at least 12 inches high guard the edge, making it apparent where the horizontal surface ends. This allows areas such as hose beds or dunnage areas to be excluded from the need for a line, even though these areas may be walked on or stood upon during operation. The line need only be added on those sides of the perimeter where there is no obvious delineating feature already.

The manner in which the line is added is also open to creativity. The intent of the line is to provide visual indication only. This intent will be met even if the line itself is not completely contiguous. Features of the apparatus may require gaps or discontinuities in the line so long as they do not detract from the visual indication. The potential complexity of surfaces on an apparatus may require the OEM to be creative in how the line is applied.

Holes, indentations, embossing, and other surface features may necessitate unique methods of application to provide a durable design or the slip-resistant aspect of the surface itself may necessitate a series of shapes or dots installed between raised features of the surface. This will meet the intent of the requirement so long as the visual indication is maintained.

Rules

LINE COLOR

Line color should be yellow unless the apparatus is yellow, in which case the line should be orange.

LINE CONTINUITY

Lines can be broken to avoid surface irregularities, or dotted as long as they are visually continuous.

HOSE STORAGE

No yellow line is required on the surface of the main hose bed or on the surface of other hose storage areas.

OPERATIONAL AREAS ONLY

Only add yellow lines where there is a reason to be standing or walking up to the line on a surface that must be accessed for operational purposes (a purpose to be on the surface during fire scene or incident). Access areas for service or maintenance do not require the yellow line.

BARRIERS AROUND THE AREA

No line around an area with a 12 inch or higher barrier (wall, handrail, equipment, etc...) between the area and a drop-off.

PROXIMITY TO THE EDGE

Position the center yellow line approximately 3 inches from the edge of the drop-off.

Examples

Applying Example Rules

The following pages provide examples of typical yellow line applications. When determining how to apply yellow lines, don't get hung up on the type of apparatus (rescue, pumper, quint, etc...) but rather focus on the way the apparatus will be used. Consider the options and equipment on the apparatus and where personnel will need to be working during emergency operations.

If equipment will be operated remotely (deck gun monitor, extendable lighting, etc...), then the only time they will need to be accessed is for service or maintenance. This can be performed at the shop or the station where step ladders and fall protection can be used. These areas, therefore, do not need to be Designated Walking Surfaces and no yellow lines are required.

COMMERCIAL OR CUSTOM

Apply the same rules regardless of whether the apparatus is built on a custom or commercial cab. In either case it will be rare that there will be an operational need to be walking on the roof. If there are folding steps on the back of the cab (perhaps requested by the department for inspection), place no-step labels on the cab roof where the steps lead to the roof.

APPARATUS SIZE

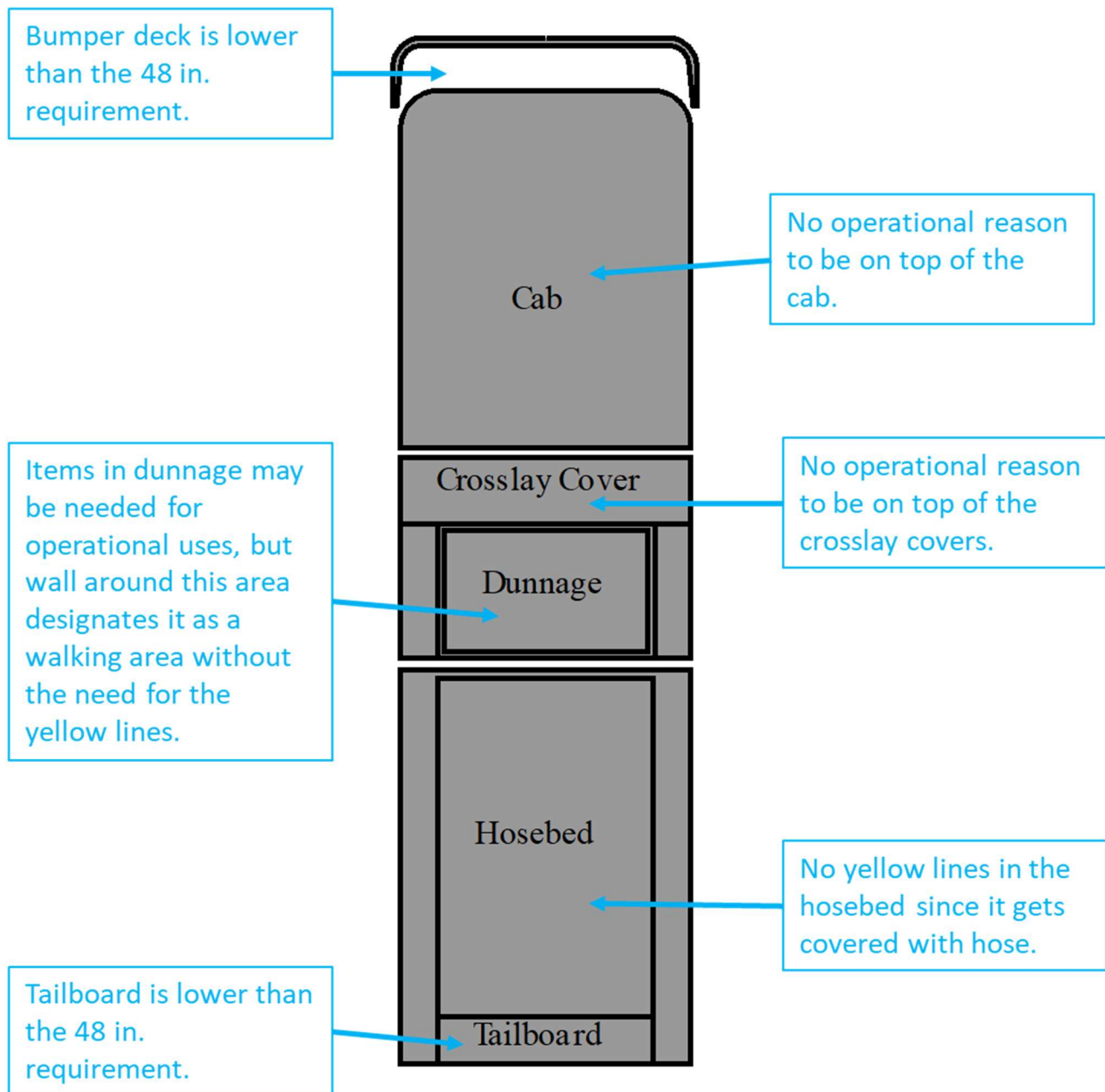
Apply the guidelines regardless of the size of the apparatus. The rules for a minipumper body and a rescue pumper body will be the same. Consider how the apparatus will be used during operation and apply the markings accordingly.



Designated Standing and Walking Surfaces Yellow Line Placement

Pumper Side Control

This configuration requires **NO YELLOW LINES** unless requested by the purchaser.

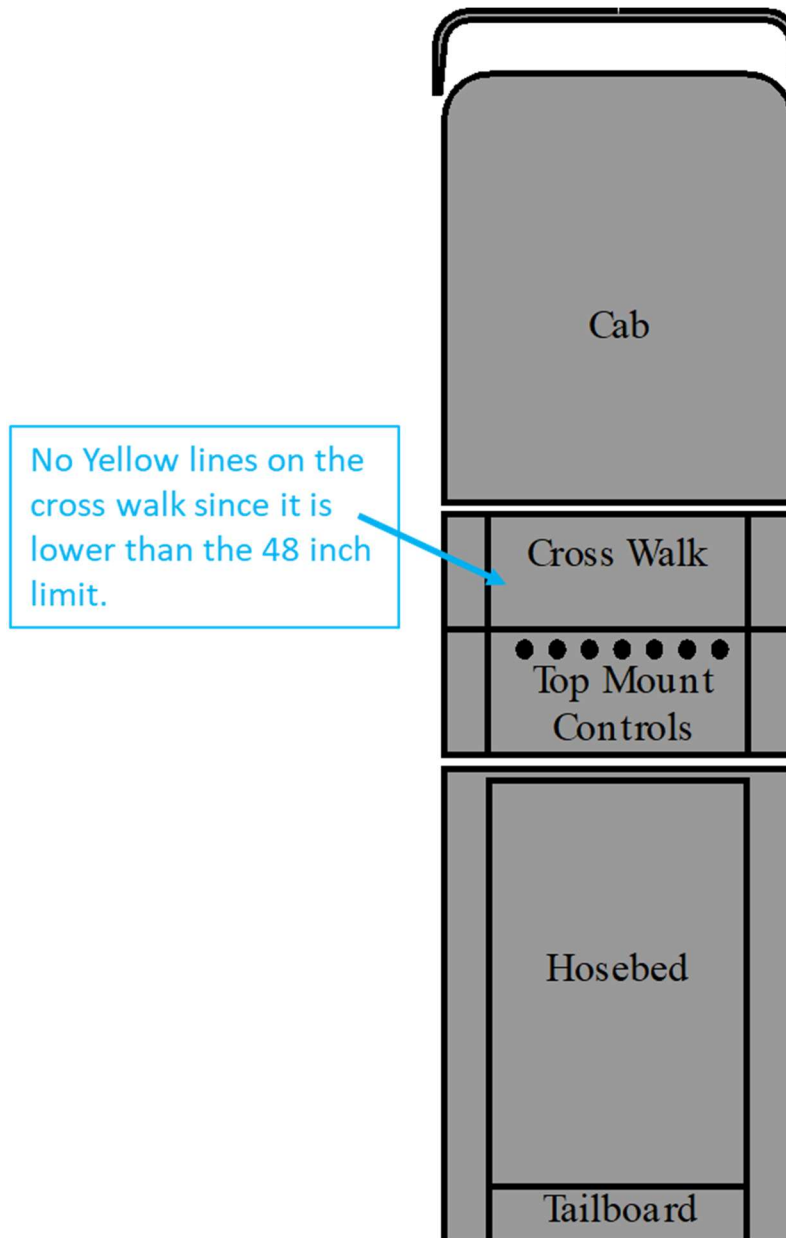




Designated Standing and Walking Surfaces Yellow Line Placement

Pumper Top Control

This configuration requires **NO YELLOW LINES** unless requested by the purchaser.





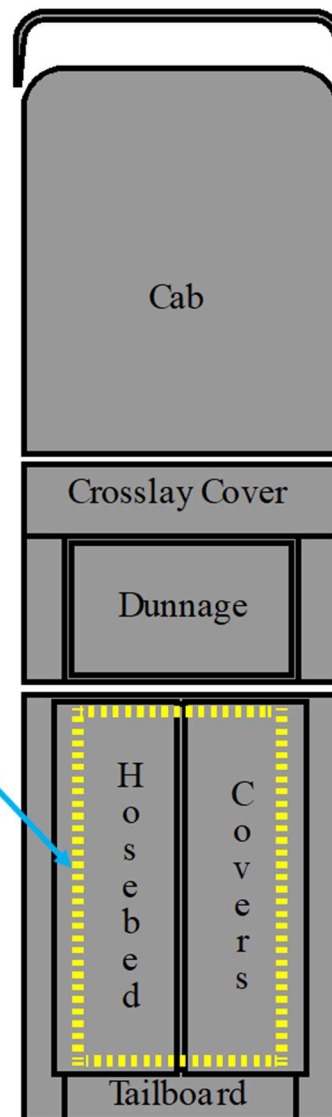
Designated Standing and Walking Surfaces Yellow Line Placement

Apparatus with Solid Hosebed Covers

YELLOW LINES where indicated.

Yellow lines on the hosebed covers approx. three inches from the edges of the covers. Provides a designated path for operator to reach the dunnage area from the rear of the apparatus.

This assumes the covers are designed to support being walked on. If they are not, leave the yellow lines off.

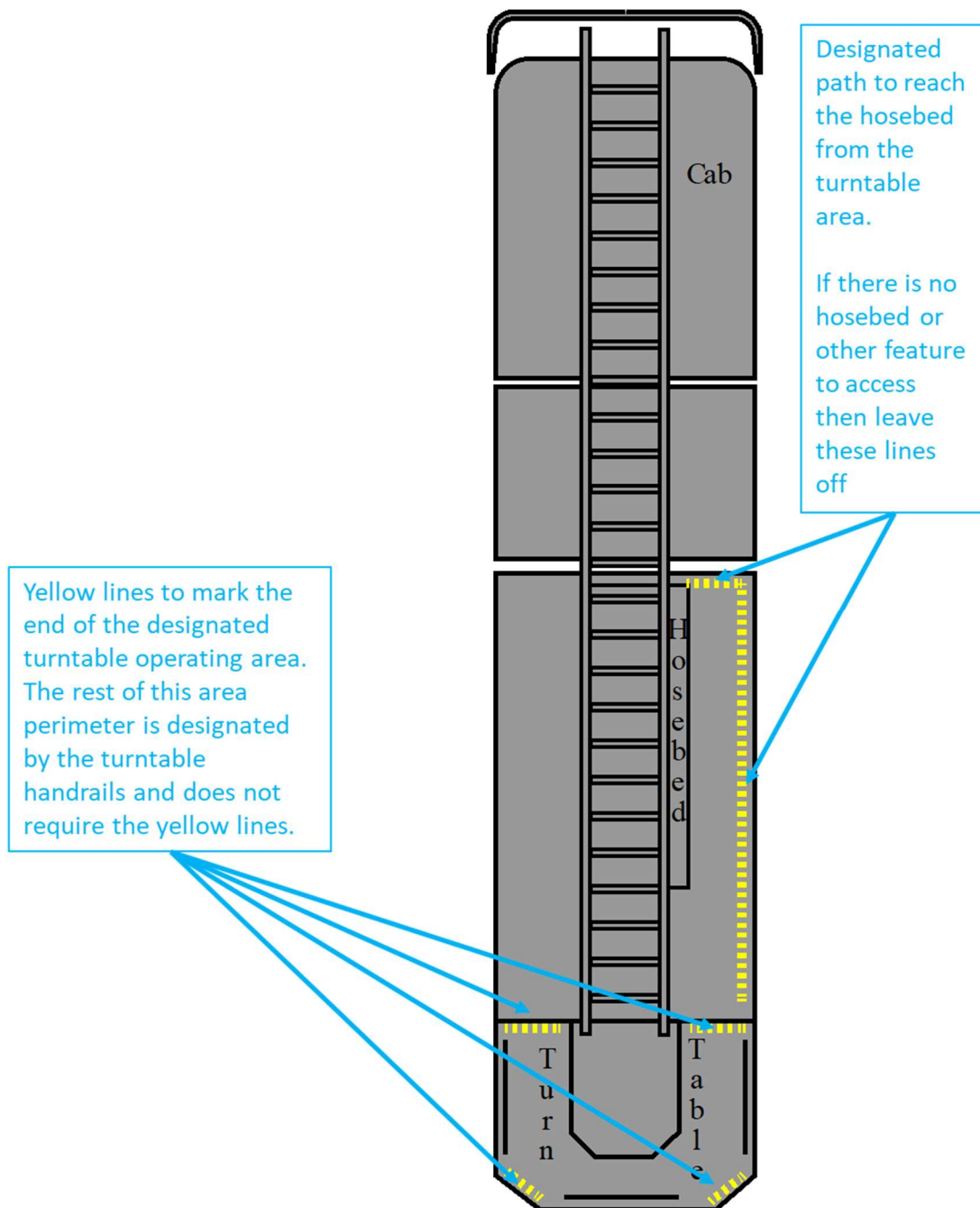




Designated Standing and Walking Surfaces Yellow Line Placement

Rear Mount Aerial Ladder

YELLOW LINES where indicated.





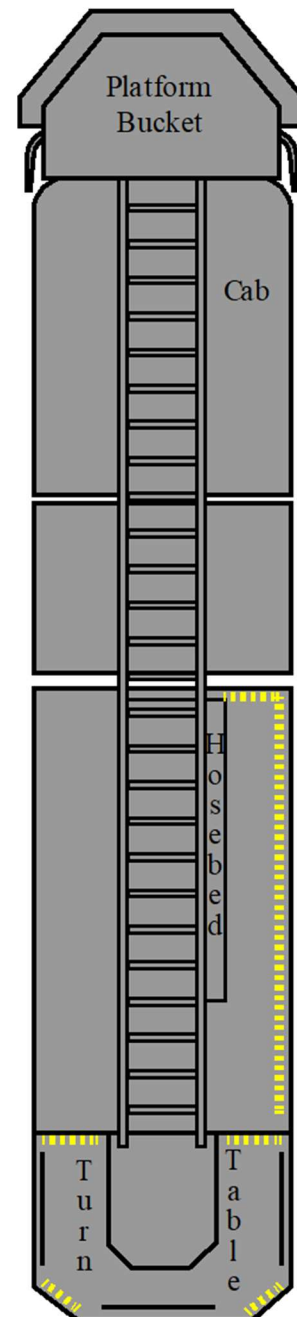
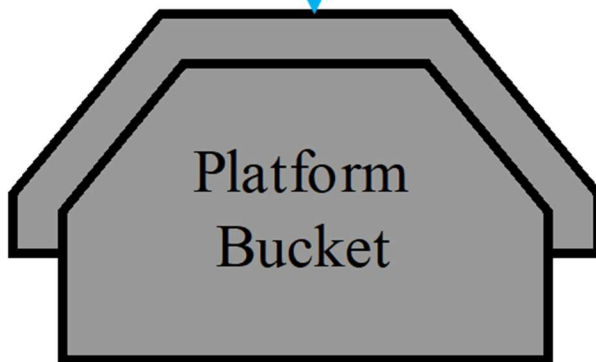
Designated Standing and Walking Surfaces Yellow Line Placement

Rear Mount Aerial Platform

YELLOW LINES where indicated.

If there is not a porch in the design, yellow lines are not required because it would be considered a step. Since it is outside the handrail guarded area, it is not a designated walking or standing surface.

The main operating area of the platform bucket does not require lines as it is designated by the gates and handrails.

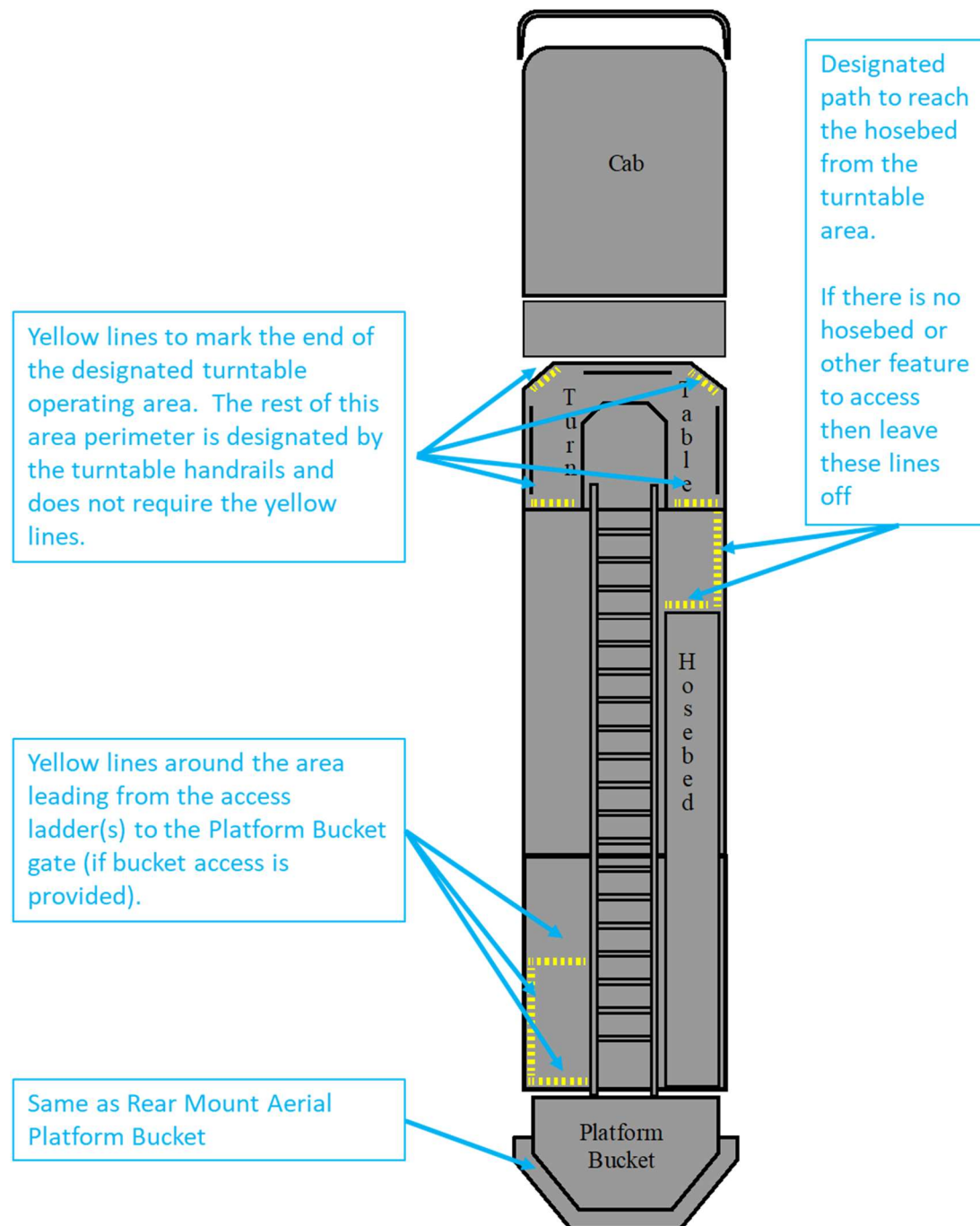




Designated Standing and Walking Surfaces Yellow Line Placement

Mid-Mount Aerial Platform

YELLOW LINES where indicated.

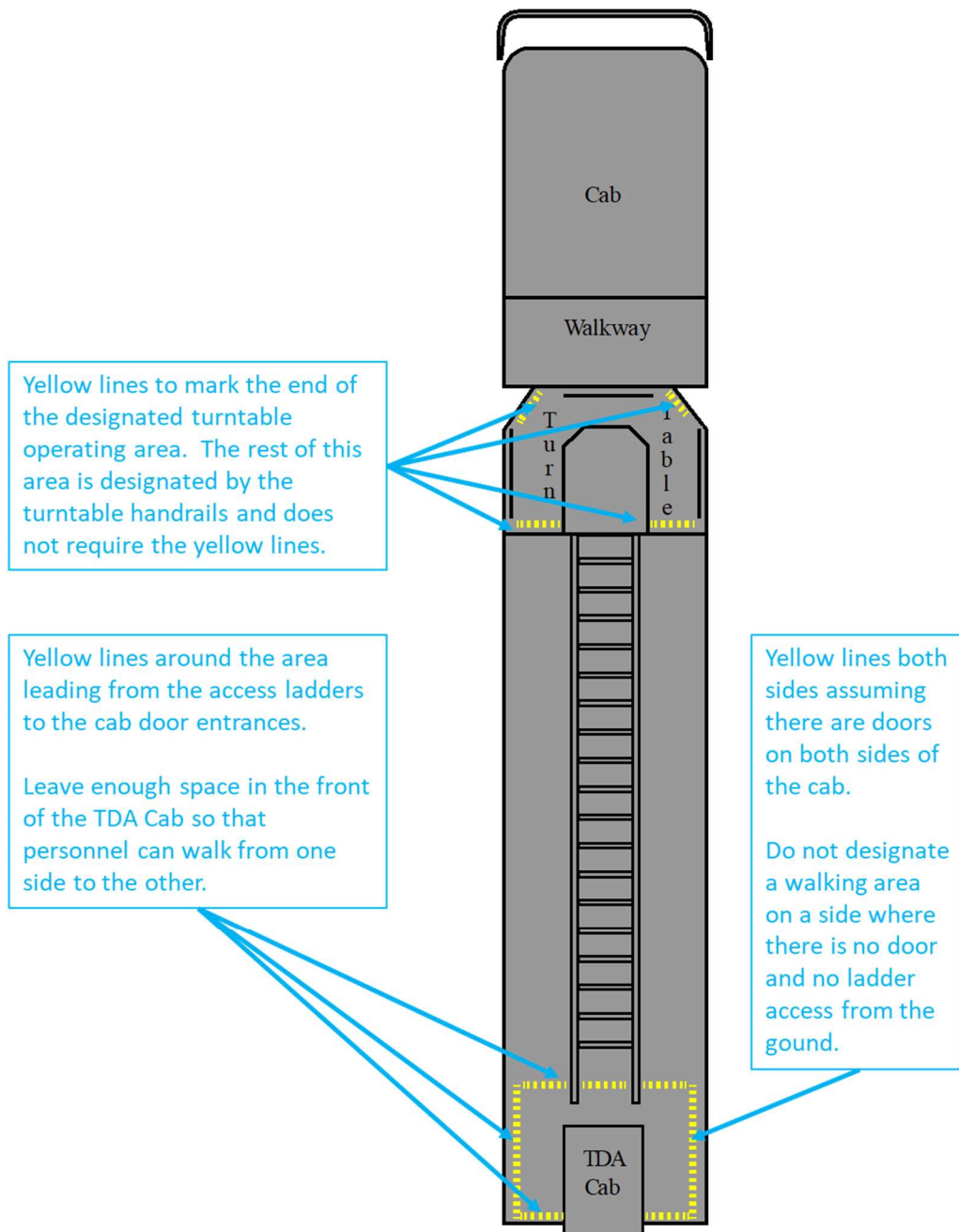




Designated Standing and Walking Surfaces Yellow Line Placement

Tractor Drawn Aerial (TDA)

YELLOW LINES where indicated.





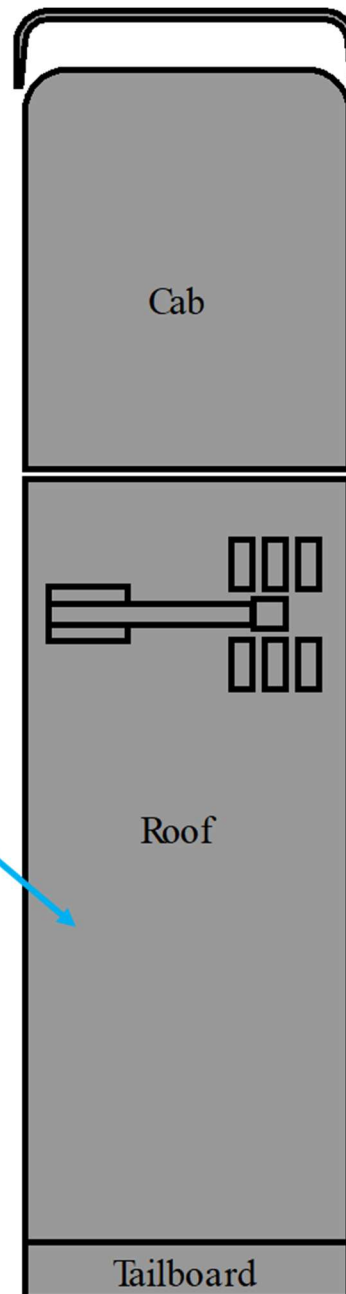
Designated Standing and Walking Surfaces Yellow Line Placement

Rescue or other Apparatus with no Roof Features

This configuration requires **NO YELLOW LINES** unless requested by the purchaser.

No lines required if there are no features (manual monitor, hose storage, dunnage, etc...) that personnel will need to access during emergency operations.

If ladder or folding step access to the roof is provided but there are no operational needs to be up there, then a no-step sign may be provided on the roof at the top of the access point.





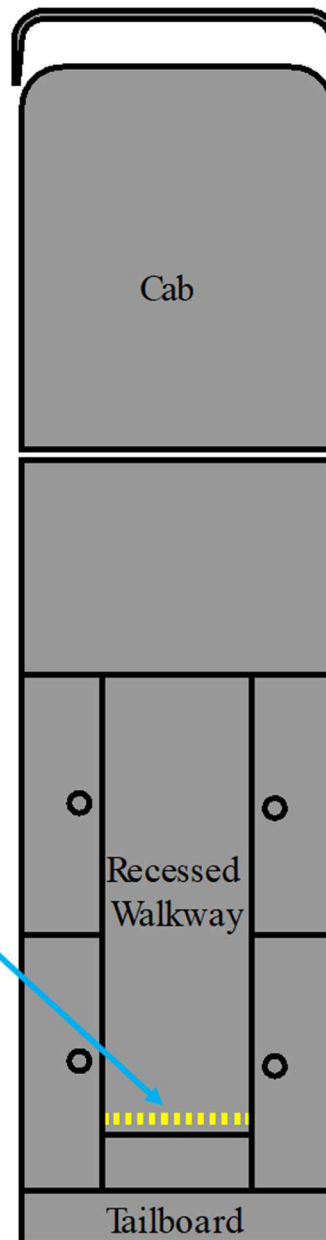
Designated Standing and Walking Surfaces Yellow Line Placement

Rescue or other Apparatus with a Recessed Feature in the Roof

YELLOW LINES where indicated.

Yellow line three inches from the edge of the drop from the recessed walkway.

The wall formed by the hatch compartments or other body features form the rest of the walkway designation.





Designated Standing and Walking Surfaces Yellow Line Placement

Rescue or other Apparatus with a Recessed Walkway and Stair Feature in the Roof

YELLOW LINES where indicated.

Yellow line three inches from the edge of the drop from the recessed walkway to the top stair.

The wall formed by the hatch compartments or other body features form the rest of the walkway designation.

No lines are required on the stairs as they are excluded in the standard.

