

## OSSC-04 Rooftop Fall Protection and Anchorages

Ref #	Section	Issue	Possible Options/Solutions	Proposed Resolution
1	1501.2.1	Section 1013 has non-germane references.	Refer to 1013.2 and 1013.3 instead of Section 1013.	Refer to 1013.2 and 1013.3 instead of Section 1013.
2	1501.2.1	Exception 1 refers to buildings with a footprint less than 1000 sq ft and additional criteria and question is whether 1000 sq ft adds an unnecessary burden for minimal exposures.	Modify exception to reference buildings with a 4000 sq ft footprint to maintain consistency with ORS 672.107.	Modify exception to reference buildings with a 4000 sq ft footprint to maintain consistency with ORS 672.107.
3	1501.2.1	Exception 1 refers to buildings with a footprint less than 1000 sq ft and additional criteria to address fall exposures on roofs where there is a need to service/maintain mechanical and electrical equipment and question is whether the conjunction should be an "and" or an "or."	Change the text to "or" as it appears both ways mean the same thing and it may reduce confusion.	Change the text to "or" as it appears both ways mean the same thing and it may reduce confusion.
4	1501.2.2	Language that refers to need for anchorages to be unobstructed may cause confusion as relates to equipment, pipe penetrations, roof vents, etc.	1) Provide clarifying language that distinguishing between building system components that would limit function of fall protection system secured to anchor.	Language revised to clarify intent.
5	1607.14.3	Reference to special inspections may either require additional inspections and costs or preclude the manufacturer's representative from conducting the inspection or create confusion amongst code officials about inspection requirements.	Reinsert authorization of manufacturers' representative to conduct inspection as per original submission of OSSC-04.	Reinsert authorization of manufacturers' representative to conduct inspection as per original submission of OSSC-04.
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**Proposed Code Amendment: OSSC 10-04**

**Revised Proposed Language:**

**Submitted 8/6/2009**

**IBC 2009, Chapter 15 Roof Assemblies and Rooftop Structures**

**Section 1501 GENERAL**

**1501.2 Rooftop Fall Protection and Anchorages**

**1501.2. Scope.** This section prescribes personal fall protection requirements that safeguard individuals on rooftops.

**1501.2.1 General.** Roofs without fall protection to a lower level by parapets or guardrails that meet the structural and dimensional requirements of guards in Sections 1013.2 and 1013.3 and Section 1607.7, shall have fall protection anchorage devices designed and installed in accordance with Section 1607.14.

**Exceptions:**

1. Buildings with a footprint less than 4000 sq. ft. or without rooftop mechanical or electrical equipment or designated access to the roof.
2. Reroofing.

Anchorage means a secure point of attachment for lifelines, lanyards or deceleration devices and when used for attachment of personal fall arrest equipment shall be independent of any anchorage being used to support or suspend platforms. Unless designed for multiple persons, anchorages shall be designed for supporting a single person. When plan dimensions allow, anchorages must be placed at least 10 feet from the roof's edge and positioned such that no location from the roof or parapet edge is at an angle greater than 25 degrees. The spacing of additional anchors is illustrated in Figure 1501.2.1.

Figure 1501.2.1

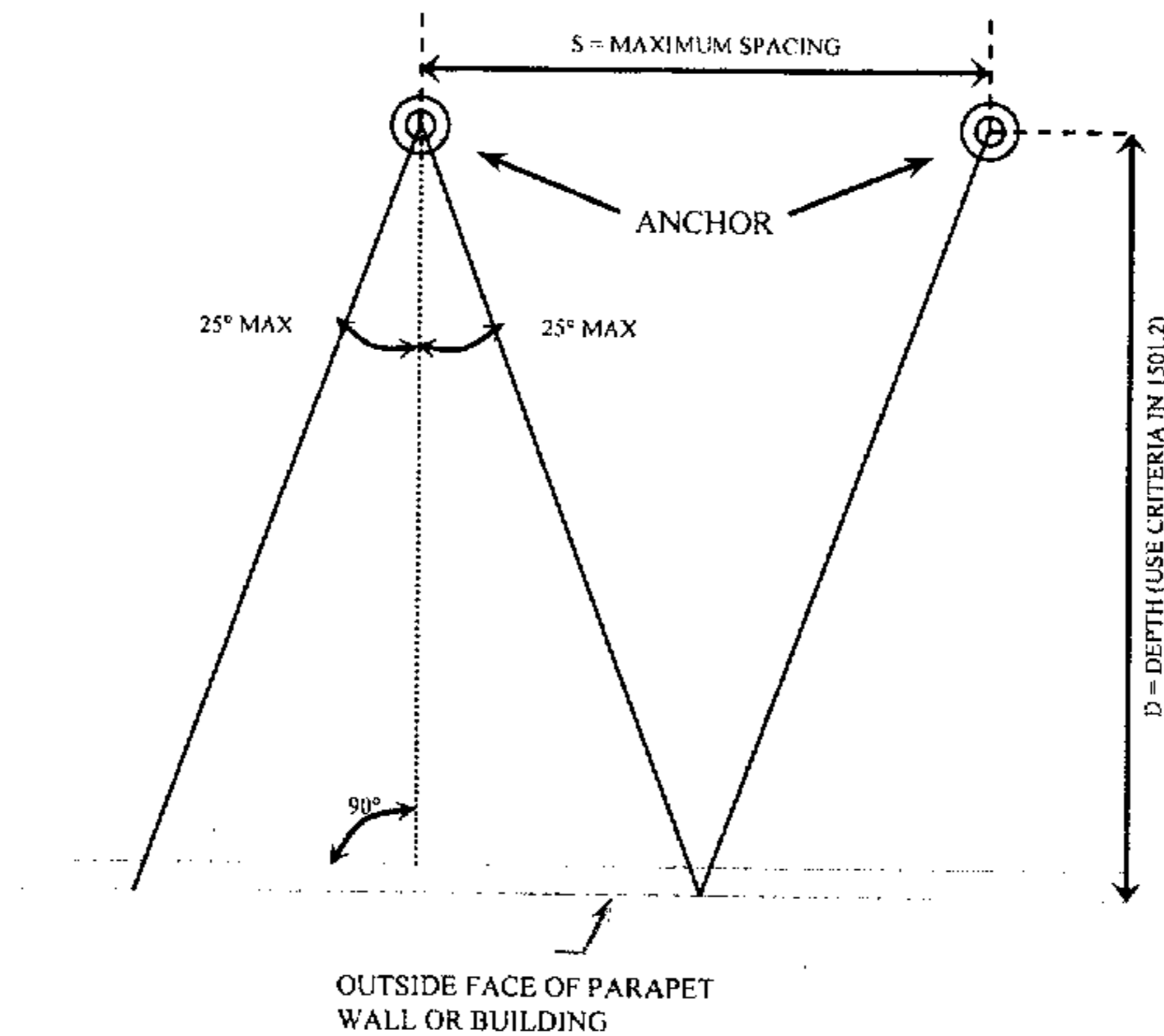
Plan View of Roof Showing Anchor Spacing (S)

$$S = 2D(\tan 25\text{deg})$$

where

S = maximum spacing between anchors

D = perpendicular distance (depth) from roof edge to anchor



**1501.2.2 Obstructions.** Anchorages must be unobstructed and located in line with the portion of the building they are serving such that no building component shall limit a direct connection (line of sight) from the anchorage to the outside face of parapet wall or building. Rooftop screens and structures may support anchorages when designed and installed in accordance with Section 1607.14. They must have rounded edges so they do not damage anything attached to them.

Note: These anchorage requirements are consistent with the following standards and regulations: the American National Standards Institute (ANSI)/Specifications and Design Requirements for Active Fall Protection Systems, Z359.6, 2009; the U.S. Department of Labor's Code of Federal Regulations (CFR) for fall protection found in 29 CFR 1926.502 (d)(15), 29 CFR 1926 Subpart M, Appendix C (h); and Oregon's Administrative Rules (OAR) for fall protection found in OAR 437-002-0125.

## IBC 2009, Chapter 16 STRUCTURAL DESIGN

### Section 1607 LIVE LOADS

#### 1607.14 Fall Protection Anchorages.

**1607.14 Fall Protection Anchorages.** Design for fall protection anchorages shall be by a registered professional engineer in accordance with ANSI Z359.6, *Specifications and Design Requirements for Active Fall Protection Systems*.

#### Exception:

1. Anchorage devices and systems designed by a registered professional engineer that are capable of sustaining a minimum 5000 lb. load in any direction that such load may reasonably be applied.
2. Anchorages and engineered systems designed by a registered professional engineer that reduce impact loading to the building structure may be used to the satisfaction of the building official.

**1607.14.1 Materials.** Anchorages that have a hidden surface must be made of non-corrosive and durable materials that will withstand impact loads.

**1607.14.2 Components.** Anchorage components and their attachment shall be designed by a registered professional engineer. Engineered stamped drawings and calculations, as either original or deferred submittals, are required to be part of the construction documents.

**1607.14.3 Inspections.** Anchorage components and their attachment must include a certification of compliance by the manufacturer's representative or from a special inspection in accordance with Section 1704 and to specifications included with construction documents provided by registered professional engineer.