

Foundation

Definition: An item that provides support for a structure by transferring the structural load to the surrounding soil while also isolating the structure from ground moisture

Name none
Variants:

Most Common Materials: concrete (poured and block), precast concrete, stone, wood, metal, beams, girders

Most Common Components: footings, walls, piers, posts, structural slabs

Location & Inspection of Foundation

Abilities or Knowledge Needed:	- Visual acuity for location & inspection - Mobility for access to all areas of the property - Understanding of item's components
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Tools for Location & Inspection	Useful:	flashlight
	Required:	measuring device

Common Locations:	Inside:	basement or lowest level of a building
	Outside:	lowest level of a building

How to Locate:	Visual Observation:	Look for this item in the lowest level of the building.
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Possible Deficiencies:	Deficiency 1:	Foundation infiltrated by water
	Deficiency 2:	Foundation is cracked
	Deficiency 3:	Foundation is spalling, flaking, or chipping
	Deficiency 4:	Support posts, columns, beams, or girders are damaged

Deficiency 1: Foundation infiltrated by water

Rationale:	Maintenance:	Indicates maintenance staff is not identifying deficiencies or responding to self-generated or complaint-driven work orders.
	Health and Safety:	Increases the probability of mold and mildew
	Structural:	Increases the probability of serious structural issues.
	Cost:	Repair is significant enough to incur capital cost.
Health and Safety:	Standard:	This is a standard health and safety issue requiring a correction, remedy, or act of abatement within 30 days.
How to Inspect:	Visual Observation:	Look at the entire foundation for evidence of water infiltration such as excessive dampness, collected water, stains, or mineral deposits.
Record deficiency if:	evidence of water infiltration through foundation.	

Deficiency 2: Foundation is cracked

Rationale:	Maintenance:	Indicates maintenance staff is not identifying deficiencies or responding to self-generated or complaint-driven work orders.
	Health and Safety:	Increases the probability of mold and mildew.
	Structural:	Increases the probability of serious structural issues.
	Cost:	Repair is significant enough to incur capital cost.
Health and Safety:	Standard:	This is a standard health and safety issued requiring a correction, remedy, or act of abatement within 30 days.
How to Inspect:	Visual Observation:	Look at the foundation and identify if there are any cracks in the foundation.
	Action:	Measure—if crack is found—the length and width of the crack. Photograph crack and length measuring device if width is $\frac{1}{4}$ inch or greater and length is 12 inches or greater. Photograph each time this occurs.
Record deficiency if:	crack is present with a width of $\frac{1}{4}$ inch or greater and a length of 12 inches or greater. One deficiency is counted per crack found.	

Deficiency 3: Foundation is spalling, flaking, or chipping

Rationale:	Maintenance:	Indicates maintenance staff is not identifying deficiencies or responding to self-generated or complaint-driven work orders.
	Structural:	Increases the probability of serious structural issues.
	Cost:	Repair is significant enough to incur capital cost.
Health and Safety:	Standard:	This is a standard health and safety issued requiring a correction, remedy, or act of abatement within 30 days.
How to Inspect:	Visual Observation:	Look at foundation for signs of spalling, flaking, or chipping.
	Action:	Measure—if signs are found—the affected area. Photograph the affected area and length measuring device if size of affected area is 12x12 inches or greater and goes into the foundation at a depth of ¾ inch or greater. Photograph each time this occurs.
Record deficiency if:	Foundation is spalling, flaking, or chipping and the affected area is 12x12 inches or greater and goes into the foundation at a depth of ¾ inch or greater. One deficiency is counted per area found.	

Deficiency 4: Support posts, columns, beams or girders are damaged

Rationale:	Maintenance:	Indicates maintenance staff is not identifying deficiencies or responding to self-generated or complaint-driven work orders.
	Structural:	Increases the probability of serious structural issues.
	Cost:	Repair is significant enough to incur capital cost.

Health and Safety:	Standard:	This is a standard health and safety issued requiring a correction, remedy, or act of abatement within 30 days.
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How to Inspect:	Visual Observation:	Look at the foundation and identify if there are any areas of damage—such as rot—on support posts, columns, or girders.
	Action:	Measure—if damage is seen—the deepest part of the damage.

Record deficiency if:	damaged area depth is more than 30% through the support post, column, or girder.	
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