

## Condition Index Number Association

Condition, functionality and performance metrics used in BUILDER are communicated upwards through the hierarchy in a weighted fashion. At each level of the hierarchy, the condition index (CI), functionality index (FI) or performance index (PI) for that level provides an understanding of the average condition/functionality /performance of the real property contained in all the inventory items under the specified Organization, Site, Complex, Building, System, or Component. The value of the index will determine whether the inventory icon for any given inventory icon appears as green, amber, or red. Gray indicates that no assessment has been recorded in BUILDER for anything under that asset. Likewise, the condition index of the Component-Section level also correlates to green, amber, red or gray icon coloring. The following table indicates what metric is used to determine the icon color in the hierarchy.

Performance Index – is a weighted combination of the CI and FI values, with the lower of the two being given two-thirds of the weight and the higher of the two values being given one-third of the weight, respectively. [There is a split weighting of 0.71 and 0.29. The lower if the two cores is weighted more heavily. Therefore, if CI is lower, the  $PI = (CI*0.71)+(FI*0.29)$ , if the FI is lower, then the  $PI = (FI*0.71)+(CI*0.29)$ .]

Level	Inventory Module	Condition Module	Functionality Module
Organization	PI	CI	FI
Site	PI	CI	FI
Complex	PI	CI	FI
Building	PI	CI	FI
System	CI	CI	-
Component	CI	CI	-
Component-Section	CI	CI	-

The following two tables provide a numerical understanding to the color scheme found in BUILDER and BUILDER generated reports. The reason for the two color schemes is because a building or system CI below 70 represents appreciable deterioration to a significant number of its components. This can indicate the need for major overhaul/renovations, even in the 69-55 range.

Component-Section Condition Index (CSCI)			Building Level Condition Index (BCI) and System Condition Index (SCI)	
DCR Color Scheme	Number Association	Number Association Range	Color Scheme	Number Association Range
Green (+)	100	86-100	Green	86-100
Green	95			
Green (-)	88			
Amber (+)	80	56-85	Amber	70-85
Amber	71			
Amber (-)	61			
Red (+)	50	0-55	Red	0-69
Red	25			
Red (-)	10			

## Distress Words Defined

**ANIMAL/INSECT DAMAGE**: Gnawed, scratched, or likewise damaged. Evidence includes holes, droppings, nests, sawdust, indicating the presence of animals, birds, and/or insects.

**BLISTERED**: Round or elongated raised areas on the surface that are generally filled with air.

**BROKEN**: Fractured, shattered, or otherwise separated into two or more pieces, resulting in the loss of operability.

**CAPABILITY/CAPACITY DEFICIENT**: Serviceability is lacking due to insufficient capacity, technical obsolescence, or lack of compliance to applicable codes.

**CLOGGED**: Obstruction that is disrupting the intended flow of air, other gasses, or liquids.

**CORRODED**: Wearing away, disintegrating, flaking, or scaling from a chemical, electrochemical, or electrolytic attack.

**CRACKED**: Fractured. Separation into pieces may or may not have occurred. No loss of operability.

**DAMAGED**: Dents, chips, gouges, rips, distortion, rupture, etc. resulting from impact, fire, flood, or other means.

**DETERIORATED**: Natural degradation through normal usage or environmental exposure. Involving disintegration, erosion, delamination, weathering, checks, warps, bumps, raveling, flaking, pitting, spalling, wear or a change in properties.

**DISPLACED**: Moved, shifted, bulged, rotated, or settled from its intended position. This may be due to a specific natural event, plastic deformation, or consolidation over time.

**EFFLORESCENCE**: White powdery coating of salts encrusted on the surface of masonry, concrete, or plaster caused by moisture leaching alkalis from mortar or concrete.

**ELECTRICAL GROUND INADEQUATE**: Improper connection causing a short circuit or resulting in inadequate grounding.

**HOLES**: Drilling, punching or penetration for an intended purpose. Depth may be partial or complete.

**LEAKS**: The unwanted entry, passage, or escape of gas or liquid.

**LOOSE**: One or more fasteners are not secured properly.

**MISSING**: Fasteners are required, but absent due to removal, dislodgement, or deterioration.

**MOISTURE/DEBRIS/MOLD/CONTAMINATED**: The unintended presence of foreign material, vegetation, mold, mildew, water and/or other liquid.

**NOISE/VIBRATION EXCESSIVE**: Equipment noise/vibration in excess of normal or acceptable levels.

**OPERATIONALLY IMPAIRED**: Does not operate properly or at all due to improper installation or construction, misalignment, binding, over tightening, malfunctioning, part failure, or M&R practices.

**OVERHEATED**: Temperature exceeds normal or acceptable levels.

**PATCHED**: An obvious localized repair to the subcomponent.

**ROTTEN**: Fungal or bacterial decay or decomposition resulting in softness, sponginess, disintegration, loss of strength, and/or distortion.

**STAINED/DIRTY**: Discoloration resulting from liquids, graffiti, smudges, mildew, mold, moss, algae, soot, dirt, animal waste, or other sources.