Quality Notes

010000 **LL Deflection - 02** 02-14-2019

There are two types of deflection when it comes to interior walls:

Interior Lateral Load Deflection (*in & out*)
&
Live Load Floor Deflection (*up & down*)

Most of the time, the specifications in the framing or drywall sections will identify the lateral load (*in & out*) deflection:

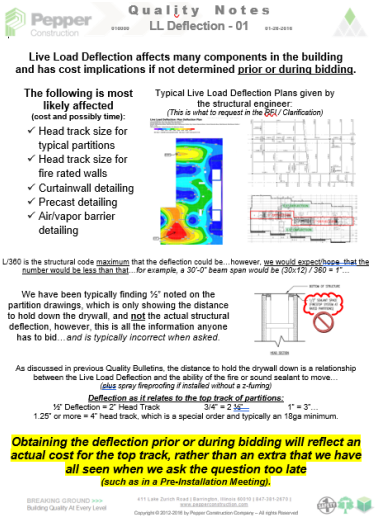
(This will determine the dimension from plumb when we push up against the wall)

	USE	DESIGN PRESSURE	MAXIMUM DEFLECTION
Wall Performance Criteria (General…if not specifically noted on the drawings):	Wall enclosing stairs, elevator hoistways, and other vertical shafts	10#/ft^2	L/120
	Wall enclosing vestibules, ground floor lobbies, and similar intermittent exposure to exterior wind conditions	15#/ft^2	L/240
	Walls scheduled with tile backer board, moisture resistant bd, or abuse resistant bd	5#/ft^2	L/360
	Walls scheduled to receive tile, lath & plaster, or veneer plaster.	5#/ft^2	L/360
	Typical interior wall/partition	5#/ft^2	L/240
	Interior ceilings/soffits and bulkheads	5#/ft^2	L/360

When we request the Live Load Deflection, we are asking the Structural Engineer to review the structural components and give us a maximum deflection (center of span) so that we could properly design the head track and fire rated head of wall joint.

If the Architect responds with L/240 or "*review the specification*", they are typically referring to the Lateral Deflection…

Please review the Quality Note
"*LL Deflection-01*"
dated 01.26.2016
for more specific information on Live Load Deflection (*up & down*).



Quality Notes
LL Deflection - 01

Live Load Deflection affects many components in the building and has cost implications if not determined prior or during bidding.

The following is most likely affected (cost and possibly time):
- ✓ Head track size for typical partitions
- ✓ Head track size for fire rated walls
- ✓ Curtainwall detailing
- ✓ Precast detailing
- ✓ Air/vapor barrier detailing

Typical Live Load Deflection Plans given by the structural engineer:
(This is what to request in the RFI / Clarification)

L/360 is the structural code maximum that the deflection could be… however, we would expect/hope that the number would be less than that…*for example, a 30'-0" beam span would be (30x12) / 360 = 1"…*

We have been typically finding ½" noted on the partition drawings, which is only showing the distance to hold down the drywall, and not the actual structural deflection, however, this is all the information anyone has to bid…*and is typically incorrect when asked.*

As discussed in previous Quality Bulletins, the distance to hold the drywall down is a relationship between the Live Load Deflection and the ability of the fire or sound sealant to move…
(plus spray fireproofing if installed without a z-furring)

Deflection as it relates to the top track of partitions:
½" Deflection = 2" Head Track 3/4" = 2 ½"… 1" = 3"…
1.25" or more = 4" head track, which is a special order and typically an 18ga minimum.

Obtaining the deflection prior or during bidding will reflect an actual cost for the top track, rather than an extra that we have all seen when we ask the question too late
(such as in a Pre-Installation Meeting).

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