

Invalid Loads to Supports When Transfer Reactions Exist

Software Versions Affected: 4.5 through 5.2

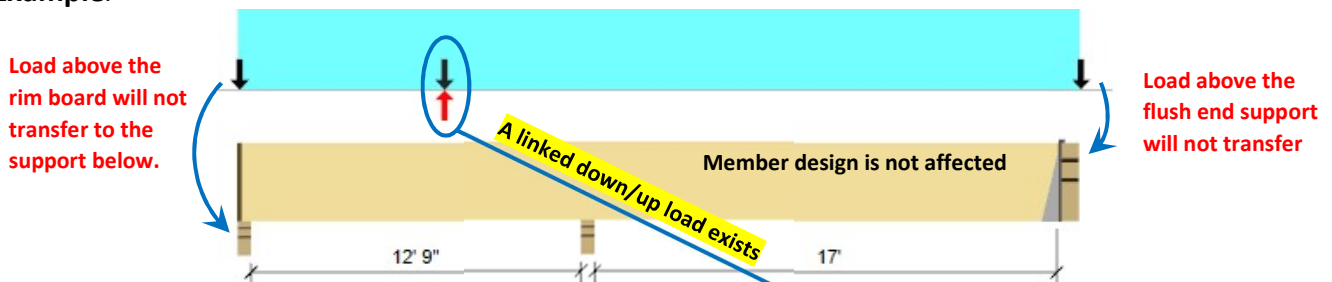
Users Affected: Any user that has used Forte in the following way:

1. A member is loaded with a transfer reaction¹, AND
2. The transferred reaction has an upward and downward component, AND
3. Loads also exist over an end rim board or flush support.

Description: When a member is loaded by at least one transfer reaction which contains both downward and upward magnitudes, and loads exist above the end condition(s), Forte is neglecting the loads above the end condition(s) when determining the loads to supports. This results in understated loads to the supports which can affect any subsequent load linking to members below.

¹ Transfer Reactions are created either by linking loads from one member to another within Forte or by importing members with specific loads from Javelin software. For more information regarding these features, please refer to Forte Help.

Example:



| Vertical Loads | Load 1 | Load 2 | Load 3 | Load 4 |
|-------------------|-------------------------------------|--------------------------|--------------------------|---|
| Type | Uniform (PLF) | Point (lb) | Point (lb) | Point (lb) |
| Full Length | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Location | Across Full Length | 0 | 30' 9 1/2" | 7' 6" |
| Dead (0.90) | 125.0 | 410 | 410 | -410 |
| Floor Live (1.00) | 250.0 | 532 | 532 | 532/-945 |
| Roof Live (1.25) | 0.0 | 0 | 0 | 0 |
| Snow (1.15) | 0.0 | 0 | 0 | 0 |
| Wind (1.60) | 0.0 | 0 | 0 | 0 |
| Seismic (1.60) | 0.0 | 0 | 0 | 0 |
| Comments | Residential - Living Areas | | | Linked from: Using Linked Loads (OK), Support 2 |

| Supports | Bearing Length | | | Loads to Supports (lbs) | | | Accessories |
|-----------------------------|----------------|---------------------|----------|-------------------------|------------|-----------|-----------------------|
| | Total | Available | Required | Dead | Floor Live | Total | |
| 1 - Stud wall - SPF | 3.50" | 2.25" | 1.50" | 423 | 1663/-403 | 2086/-403 | 1 1/4" Rim Board |
| 2 - Stud wall - SPF | 3.50" | 3.50" | 3.25" | 2100 | 5157 | 7257 | None |
| 3 - Hanger on SPF stud wall | 5.50" | Hanger ¹ | 1.50" | 879 | 1838/-166 | 2717/-166 | See note ¹ |

User Action: Until the new version is available, jobs created in Forte software that include transfer reactions and loads on end conditions need to be reviewed for accuracy. Transfer reactions may need to be manually applied for proper loading to supports.

Version Fixed: Forte 5.3 (available Summer 2017)

Contact Support: If you have any questions or concerns regarding this software advisory please contact Weyerhaeuser Software Support at software@weyerhaeuser.com or by calling 1.800.833.9491.