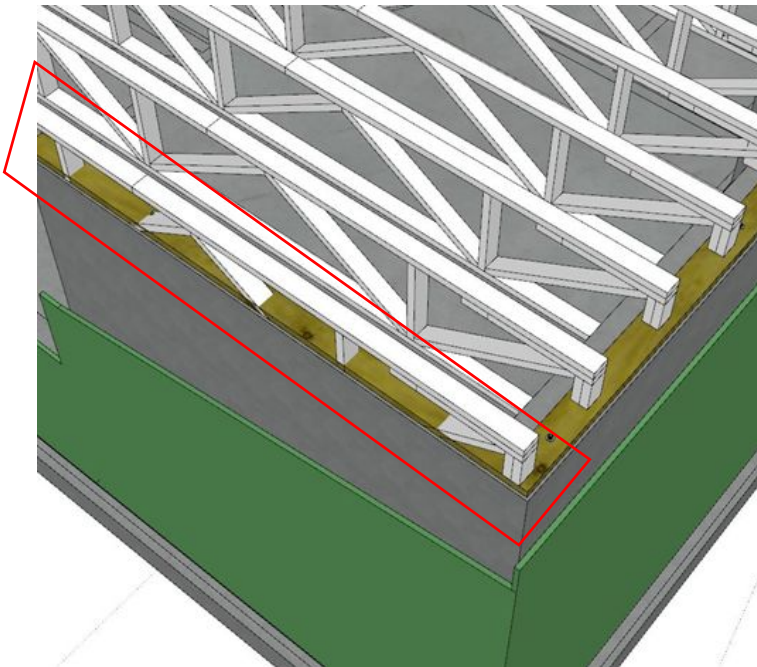


## Case Study #5: Floor System Analysis

Client: BrockWorks, Inc., Moneta, Virginia

**Project:** This project's floor system utilized mid-chord bearing floor trusses. Mid-chord bearing is an option where the bottom chord of the truss (which normally bears on a wall) is cut short of a foundation wall (allowing for concrete thickness) and actually bears mid-chord. Commonly, a 2x10 band ties these together above the sill plate. Advantages for this method are higher backfilling and reduced step into the house (often one step up from porch or garage vs multiple).

The foundation wall for this project was 10" x 10' tall and the foundation wall turned the corner for 10' before stepping down with grade. The floor truss 3D model was provided by the truss manufacturer and placed directly on top of the sill plate on the foundation. It became immediately apparent that the end trusses for this project, F1 and F11 in this case, were NOT needed. You can see in the image below that F1 appears embedded in the concrete.



The truss vendor was informed to remove the two end trusses from the quote and order. These amounted to approximately **\$300**.

In addition, this was a cost-plus contract on this house. You can imagine the homeowner visiting the job site and seeing two trusses by the dumpster and asking "What are those?". The contractor would say "Oh, those were extra trusses we did not need". Owner, "Did I pay for them?" Contractor, "ummmmm"