



Construction Bulletin – April 2018

This bulletin formalizes several construction practices that have been implemented since publication of the October 2018 Construction Manual. It incorporates feedback from core volunteers who have given their time and energy to help Dallas Habitat field test different options to arrive at a solution that best meets the goal for consistent quality for our homeowners and ease of construction by volunteers. Thank you to each of you for your input.

Construction Practices: Updates

HVAC Closet Caulking

To assist in being EnergyStar compliant, we have introduced the additional task of caulking where the OSB meets at the corners ***below the location of the platform***. The simplest method is to install the OSB and then the platform without the leg supports. Caulk the corners of the OSB and the undersides of the platform. Then continue to install the leg supports, etc.

Purpose of Change:

This change contributes to successfully passing the EnergyStar testing as it prevents any air leakage from the HVAC.

Poly

The current practice when installing Poly around the house is to measure for poly on the studs at 12" from the bottom plate which leaves a 6" overhang. To reduce the need to go back and cut off the poly after installing siding, please snap the line at 16" from the bottom plate so there is only a 2" overhang.

NOTE: when there is brick on the house, the poly will need to have the 6" overhang to act as the brick flashing.

Poly on corners: to maintain a tight corner when installing the poly, fold the poly in half and using a piece of 2x4 to "iron" a crease so it will now fit nicely into the corner.

Purpose of Change:

This change is to eliminate an extra step at the end of the build without compromising the purpose of the poly.

Shingle Overhang

When we converted to 3-tab shingles in 2017, the practice was introduced to allow for a 1/2" overhang of the shingles over the drip edge on both the rakes and eaves. DAH monitored the implementation of this practice and concluded that for a more consistent look without compromising quality, we no longer need to overhang the shingles on the rakes. They are now to be flush with the edge of the drip edge.

Purpose of Change:

This change allows for a more even look on the rakes without compromising quality.

Z-Flashing Over Garage Trim

With the introduction of placing trim over siding, it has become evident that it is necessary to install a piece of flashing over the garage trim. To do this successfully please follow these installation steps: Complete 2x8" trim inside garage; complete siding up to the first piece of siding over the garage; trim the garage opening with 1x4" trim; add z-flashing; and continue siding over the flashing. Below is an example of how the z-flashing should be cut to wrap over the edges of the trim. Note: once we have pictures showing exactly how this will work, a bulletin will be sent out.



Purpose of Change:

To eliminate water getting behind the trim over the garage and causing water damage.

Construction Practices: Reminders/Quality

OSB Sheathing

Because this is such an important step in the framing of the house we are continuing to communicate the steps for sheathing the house walls.



Figure 6-2. Wall Sheathing Set 1/2-inch Above Top Plate

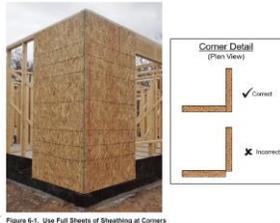
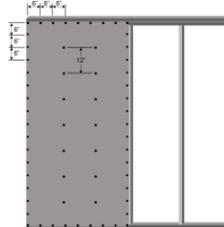


Figure 6-1. Use Full Sheets of Sheathing at Corners



Step 1

Snap line 1' from the top of the cap plate, Snap a line Place 12d nails on the line at each stud.

Step 2

Install full pieces of OSB at the corners of the house including the garage. Match up corners.

Step 3

Nailing pattern, = < 6" around the outside of the OSB and = < 12" down the middle. OSB must end at a stud. If necessary add a Stud. Nail off windows and doors = < 6".

Note: when installing OSB on the front porch, please DO NOT let the OSB rest on the foundation. Place a space, such as a scrap of OSB, to lift the OSB off the foundation.

Purpose of Reminder:

The positioning and fastening of OSB sheathing is very important to the structural integrity of the walls. This continues to be an area where the application of construction practices is inconsistently applied so we wanted to bring it to everyone's attention.

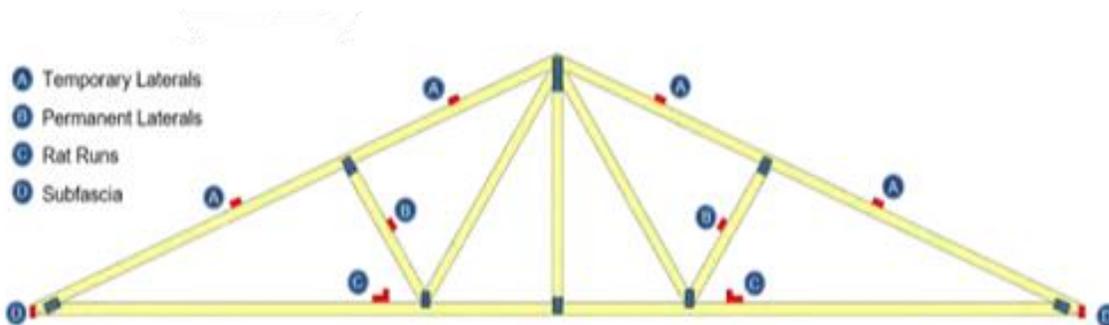
Truss Bracing

Truss bracing has a number of elements that all work together to ensure that the truss system supports the roofing load, prevents trusses from toppling during installation, keeps trusses vertical and parallel to each other and secure at bearing points; as well as meets local weather conditions. It is critical that we adhere to DAH's established truss installation and bracing rules to make sure we comply with the trusses designed and constructed for our homes.

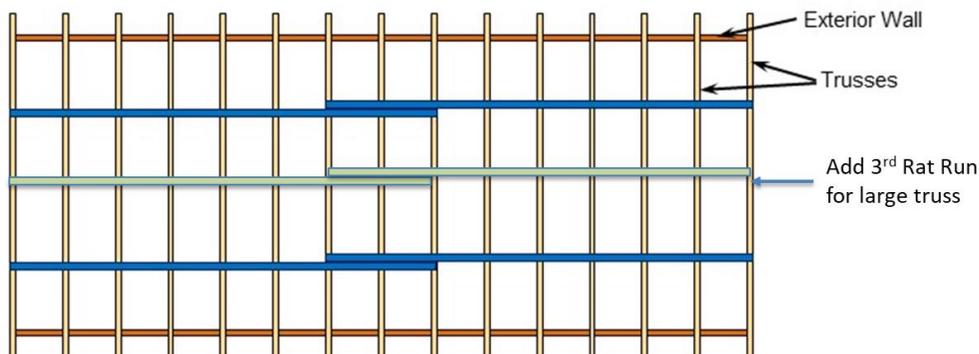
Truss bracing components are: placement of the lateral bracing on the identified webs; k-bracing for back and front gables; rat runs positioned in the identified locations depending upon whether the house width is $\leq 30'$ or $38-40'$; and the importance of temporary bracing until decking is underway; hurricane ties; and sub-fascia. For complete details, please refer to the 2017 Construction Manual – Chapter 5. Below are reference diagrams showing the correct positions for temporary and permanent lateral bracing and rat runs.

Positions for Permanent and Temporary Truss Bracing:

Ideally, the permanent lateral bracing should be installed as the trusses are being stood.



The above diagram shows two rows of temporary lateral bracing which is required for truss spans of $\geq 38'$. For truss spans $\leq 30'$ (Magnolia, Trinity and Willow) only a single row of temporary lateral bracing is required and should be placed approximately 9' from the truss tail.



Smaller trusses ($\sim 30'$) = 2 Rat Runs @ $1/3$ spacing (e.g. Trinity & Magnolia)
 Larger Trusses ($\sim 38'$) = 3 Rat Runs @ $1/4$ spacing (e.g. Hawthorne & Hickory)

Purpose of Reminder:

It is essential that we are consistent in how we install and brace trusses for the various floor plans used by DAH. To confirm that our current methods and practices meet industry standards and BMC specific truss design, we met with BMC – our truss manufacturer – to confirm that DAH practices comply with accepted practices. These practices have been signed off by our truss engineer to be in compliance with their design.

Cap Plate – Middle Wall

Trusses designed for DAH floor plans are intended to “float” on the interior walls. This means they should just rest on cap plate of interior walls. Sometimes there is a problem if the foundation has a crown or high point. In the event there is a crown in the foundation that will impact the truss “floating” on the middle wall, the best solution is to not install the cap plate on the middle wall until after the trusses have been installed. Then we will go back and shave out where the cap plate is pushing against the truss.

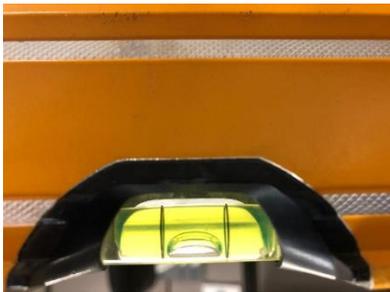
Purpose of Change:

To provide a consistent method to address high spots on foundations that impact trusses not floating on the top of the cap plate and comply with the purpose of cap plate to provide structural integrity to the wall system.

Construction Practices: General

Using a Level

When using a level to plumb walls or level/plumb a window, it is critical to understand the proper read



The position of the bubble in this picture is perfect and will ensure everything is Plumb and/or level.



In this picture, the bubble is too close to the line and will cause walls to be out of plumb by up to 1+” or windows to not close properly.

Purpose of Reminder:

Many times, it is about the little things which have a big impact when not used properly.