

August 6, 2024

Walker Custom Homes
Attn: Tyler Lockler

RE: 2813 SW Heartland Rd., Lee's Summit, MO – Inspection Letter

Per contractor's request, Vista Structural Engineering, LLC, was asked to address the following inspection comment at the above reference project:

Inspection Comment: Address rafter bearing throughout residence not to plans or code.

VSE's Response: Please reference attached site photos of rafter bearing conditions throughout residence. Please see the following recommendation/comments in accordance with site photo # reference.

1. Site Photo #1 (ref. pg. 3):
 - Verify 2x4 braces are fastened to rafters and ceiling joists with (3) 8d nails per detail 7/S3.0.
 - Toenail rafters to flat 2x plate, toenail flat 2x plate to blocking, and toenail blocking to wall top plate – min. (3) 8d toenails, typ. for connections listed.
 - Install Simpson SDWC15600 screw to underside of flat 2x plate into bottom of hip rafter.
2. Site Photo #2 (ref. pg. 4):
 - Verify 2x4 braces are fastened to rafters and ceiling joists with (3) 8d nails per detail 7/S3.0.
 - Toenail rafters to flat 2x plate, toenail flat 2x plate to blocking, and toenail blocking to wall top plate – min. (3) 8d toenails, typ. for connections listed.
3. Site Photo #3 (ref. pg. 5):
 - Verify 2x4 braces are fastened to rafters and ceiling joists with (3) 8d nails per detail 7/S3.0.
 - Toenail rafters to flat 2x plate, toenail flat 2x plate to blocking, and toenail blocking to wall top plate – min. (3) 8d toenails, typ. for connections listed.
 - Install Simpson SDWC15600 screw to underside of flat 2x plate into bottom of LVL hip rafter.
4. Site Photo #4 (ref. pg. 6):
 - Verify 2x4 braces are fastened to rafters and ceiling joists with (3) 8d nails per detail 7/S3.0.
 - Toenail rafters to flat 2x plate, toenail flat 2x plate to ceiling joist, and toenail ceiling joist to wall top plate – min. (3) 8d toenails, typ. for connections listed.
5. Site Photo #5 (ref. pg. 7):
 - Verify 2x4 braces are fastened to rafters and ceiling joists with (3) 8d nails per detail 7/S3.0.
 - Toenail rafters to flat 2x plate, toenail flat 2x plate to blocking, and toenail blocking to wall top plate – min. (3) 8d toenails, typ. for connections listed.

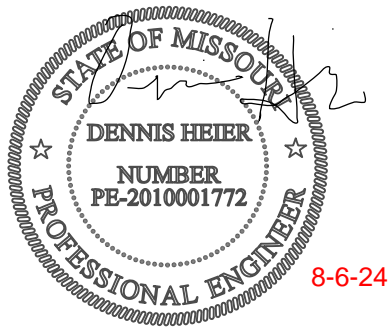
Our firm appreciates the opportunity to serve you. If you have any questions or if you need anything further, please feel free to contact us.



Sincerely,

Vista Structural Engineering, LLC

Dennis Heier, P.E.



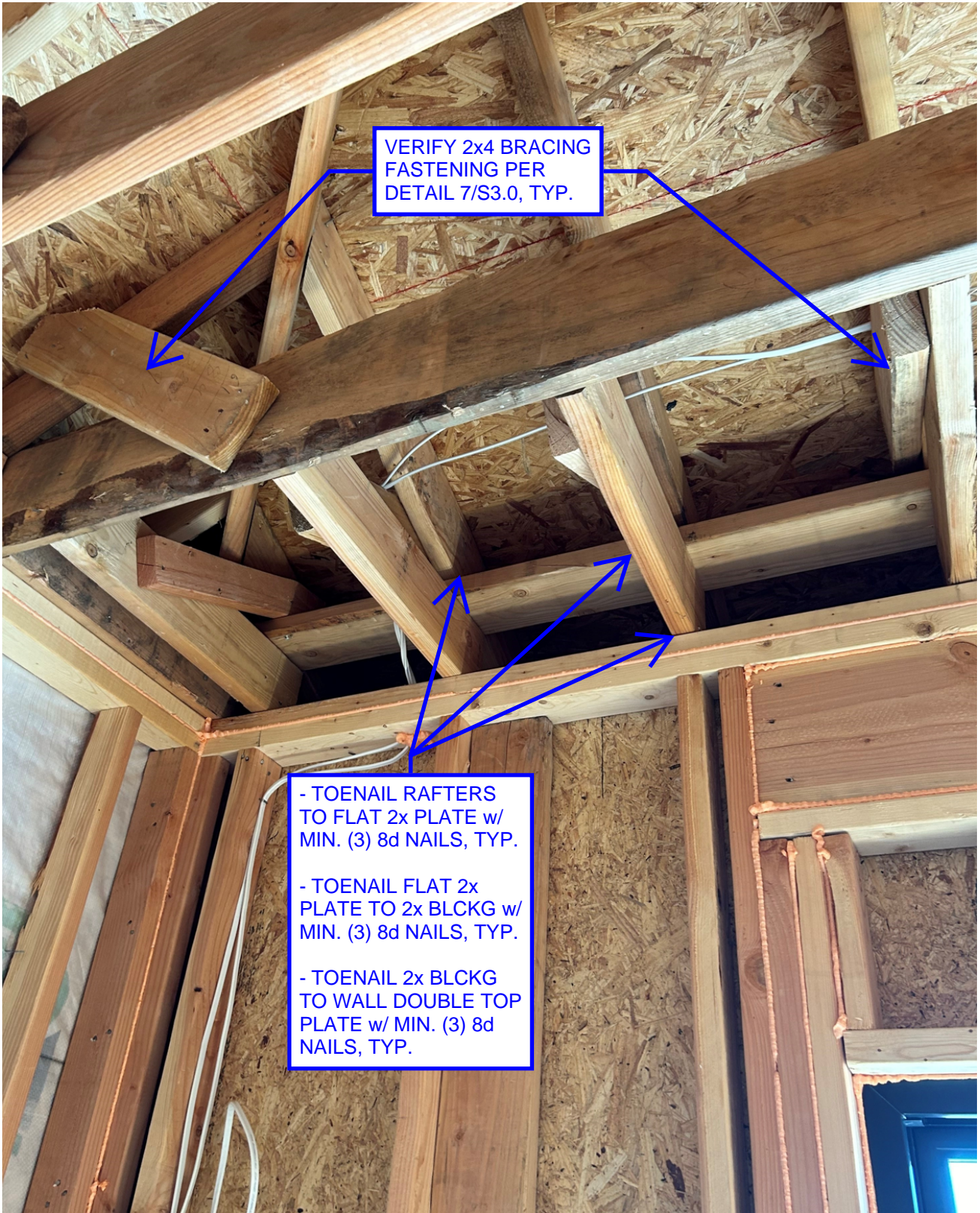


VERIFY 2x4 BRACING FASTENING PER DETAIL 7/S3.0, TYP.

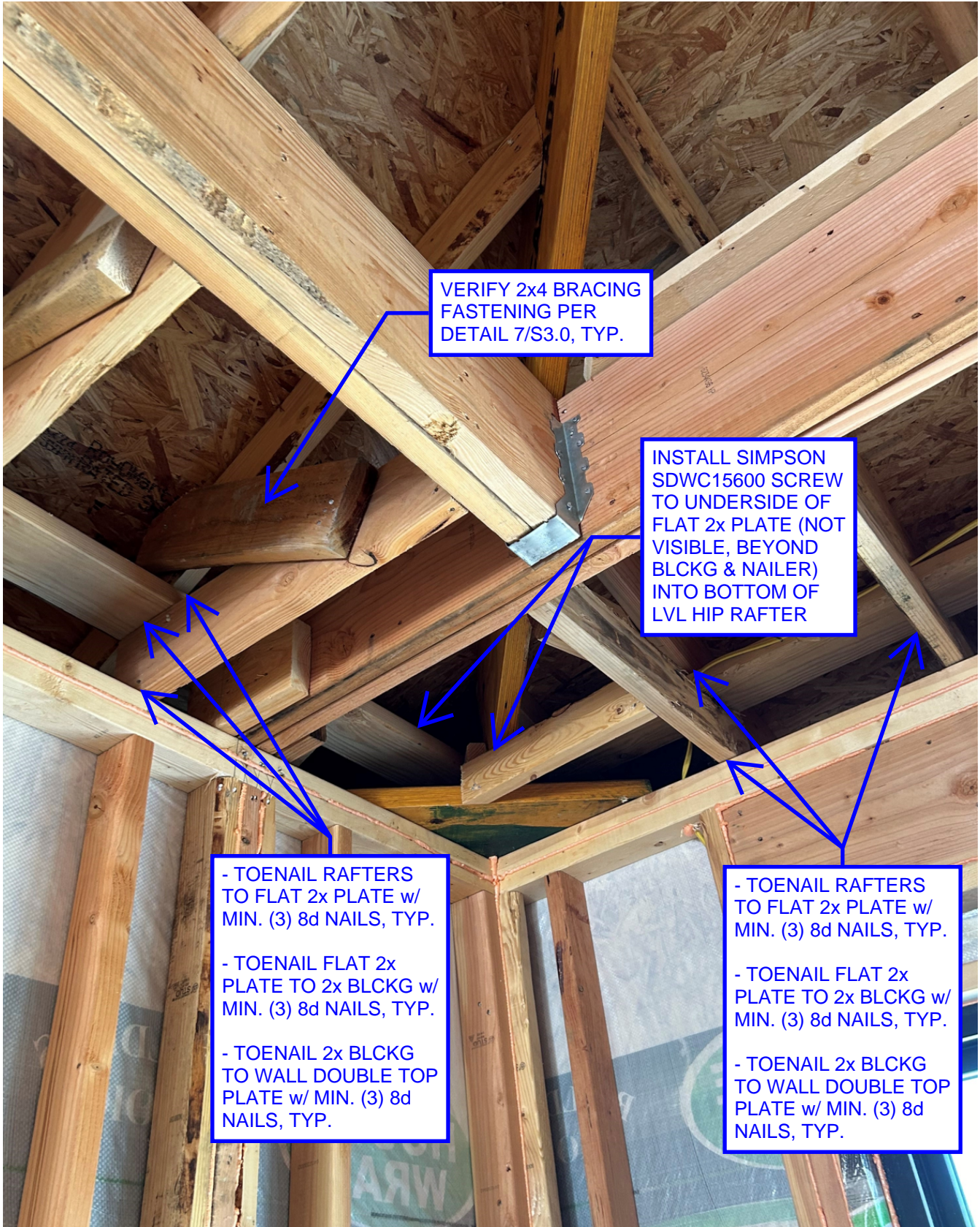
INSTALL SIMPSON SDWC15600 SCREW TO UNDERSIDE OF FLAT 2x PLATE (NOT VISIBLE, BEYOND BLCKG) INTO BOTTOM OF HIP RAFTER

- TOENAIL RAFTERS TO FLAT 2x PLATE w/ MIN. (3) 8d NAILS, TYP.
- TOENAIL FLAT 2x PLATE TO 2x BLCKG w/ MIN. (3) 8d NAILS, TYP.
- TOENAIL 2x BLCKG TO WALL DOUBLE TOP PLATE w/ MIN. (3) 8d NAILS, TYP.

SITE PHOTO #1



SITE PHOTO #2



VERIFY 2x4 BRACING
FASTENING PER
DETAIL 7/S3.0, TYP.

INSTALL SIMPSON
SDWC15600 SCREW
TO UNDERSIDE OF
FLAT 2x PLATE (NOT
VISIBLE, BEYOND
BLCKG & NAILER)
INTO BOTTOM OF
LVL HIP RAFTER

- TOENAIL RAFTERS
TO FLAT 2x PLATE w/
MIN. (3) 8d NAILS, TYP.

- TOENAIL FLAT 2x
PLATE TO 2x BLCKG w/
MIN. (3) 8d NAILS, TYP.

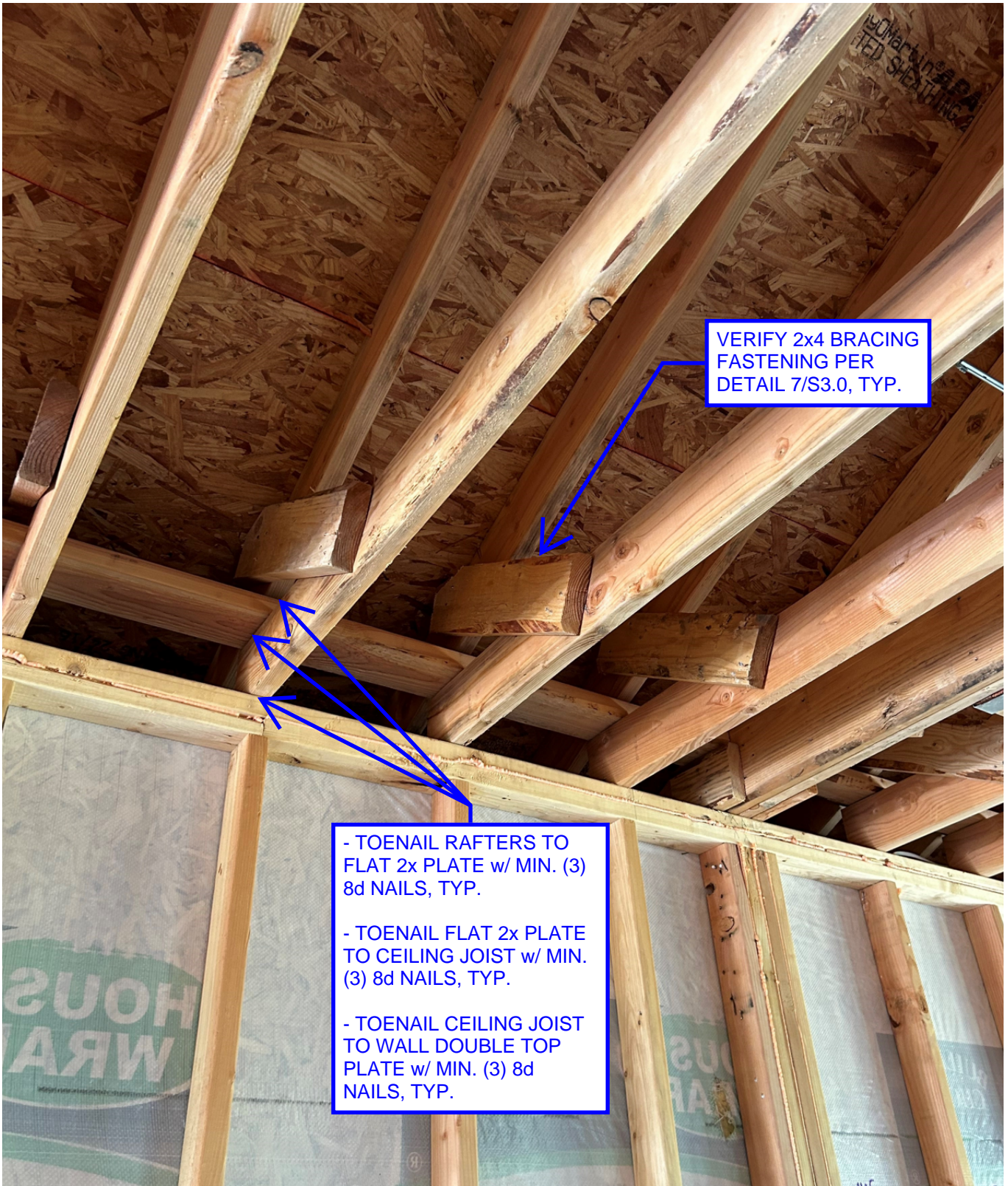
- TOENAIL 2x BLCKG
TO WALL DOUBLE TOP
PLATE w/ MIN. (3) 8d
NAILS, TYP.

- TOENAIL RAFTERS
TO FLAT 2x PLATE w/
MIN. (3) 8d NAILS, TYP.

- TOENAIL FLAT 2x
PLATE TO 2x BLCKG w/
MIN. (3) 8d NAILS, TYP.

- TOENAIL 2x BLCKG
TO WALL DOUBLE TOP
PLATE w/ MIN. (3) 8d
NAILS, TYP.

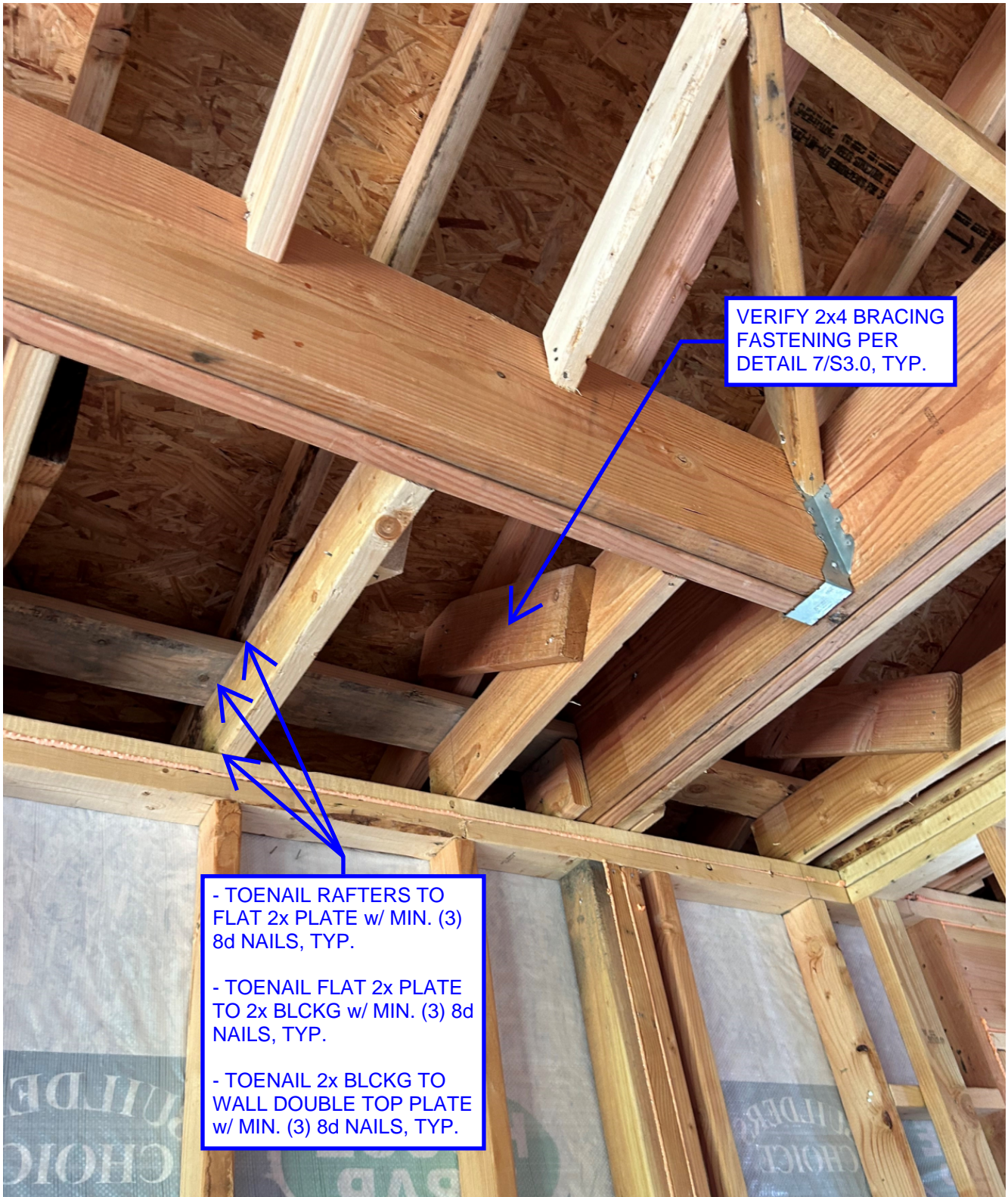
SITE PHOTO #3



VERIFY 2x4 BRACING
FASTENING PER
DETAIL 7/S3.0, TYP.

- TOENAIL RAFTERS TO
FLAT 2x PLATE w/ MIN. (3)
8d NAILS, TYP.
- TOENAIL FLAT 2x PLATE
TO CEILING JOIST w/ MIN.
(3) 8d NAILS, TYP.
- TOENAIL CEILING JOIST
TO WALL DOUBLE TOP
PLATE w/ MIN. (3) 8d
NAILS, TYP.

SITE PHOTO #4



VERIFY 2x4 BRACING
FASTENING PER
DETAIL 7/S3.0, TYP.

- TOENAIL RAFTERS TO
FLAT 2x PLATE w/ MIN. (3)
8d NAILS, TYP.
- TOENAIL FLAT 2x PLATE
TO 2x BLCKG w/ MIN. (3) 8d
NAILS, TYP.
- TOENAIL 2x BLCKG TO
WALL DOUBLE TOP PLATE
w/ MIN. (3) 8d NAILS, TYP.

SITE PHOTO #5