



SUNLIGHT INSPECTION SERVICE

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www.sunlightinspections.com

590 Sandra Lane, Phoenixville, PA 19460



125 New Home Rd Lot 34 Phoenixville, PA 19460

REPORT# 23021204D

Monday, February 13, 2023

Report Prepared For
Joe & Sue Homebuyers

Clients Representative
N/A

REVISED Inspector
Dan Keogh
InterNACHI 13121612





Monday, February 13, 2023
Joe & Sue Homebuyers
125 New Home Rd Lot 34
Phoenixville, PA 19460

Dear Joe & Sue Homebuyers,

I have enclosed the report for the property inspection we conducted for you on Monday, February 13, 2023 at:

125 New Home Rd Lot 34
Phoenixville, PA 19460

My report is designed to be clear, easy to understand, and helpful. Please take the time to review it carefully. If there is anything you would like us to explain, or if there is other information you would like, please feel free to call me 484-995-9444. I would be happy to answer any questions you may have.

We thank you for the opportunity to be of service to you.

Sincerely,

A handwritten signature in black ink, appearing to read "Dan Keogh".

Dan Keogh
SunLight Inspection Services
Scheduling Office: 610-450-6056
Office@SunLightInspections.com
www.SunLightInspections.com

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Code References

Your new home should be built to three standards; the Pennsylvania Uniform Construction Code (UCC), manufacture specifications when applicable, and current workmanship and industry standards. While inspecting your home to the ASHI Standards of Practice, if in the opinion of the inspector, discrepancies are found in the visible areas of the home between the home's construction and the current building code they will be noted in the report. Code sections may be provided in the report to support the inspector's opinion.

Your inspector is not a building code official and has no authority to enforce the building code. This inspection is not a code-complaint inspection. *The responsibility to build to the current Building Code is solely that of the home builder.*

A quick word about Building Codes:

In July 2004 Pennsylvania adopted the Uniform Construction Code (UCC). The intent and purpose of the UCC is to provide standards for the protection of life, health, property, and environment and the for the safety and welfare of the consumer, general public, and owners and occupants of building structures. For residential construction, the bases of the UCC is the International Residential Code (IRC) published by the International Code Council (ICC), with some modifications adopted by the state legislature. All builders are required to follow the PA UCC and all Building Code Officials are required to enforce the PA UCC. A Building Code Official is someone who is employed directly or indirectly by a municipality. Only the Building Code Official has the authority to enforce the building code. Building Code Officials and the PA UCC are regulated by the Pennsylvania Department of Labor and Industry (L&I). If you feel the builder is not building to the PA UCC I recommend you contact the local building code official.

Throughout the report, you'll find special symbols at the front of certain comments. Below are the symbols and their meanings:

C = Correction Recommend: Denotes a system or component of the home that is in the opinion of the inspector; significantly deficient, falls short of manufacture specifications, or does not comply with the building code.

R = Reference: A reference to support the inspectors opinion.

Introduction, Scope of the Inspection

INTRODUCTION:

The following numbered and attached pages are your pre-drywall inspection report. The report includes photographs, comments, and the Standards of Practice. This inspection was performed in accordance with the current Standards of Practice for Residential Pre-drywall Inspections of the American Society of Home Inspectors. The Standards contain certain and very important limitations, exceptions, and exclusions to the inspection. A copy is available prior to, during, and after the inspection, and it is part of the report. All components designated in the ASHI standards of practices, except for limitations that may be noted in the report, will be inspected. The inspection is for the most part a limited visual inspection only. A representative sampling of the building components is viewed in areas that are accessible at the time of the inspection. No destructive testing or dismantling of components is performed. Be sure to keep your signed copy of the home inspection agreement along with the report for future reference.

SCOPE:

The inspection is based on observations of the visible, readily accessible and apparent condition of the structure and its components on the day of the inspection. The results of this inspection are not intended to make any representation regarding the presence or absence of latent or concealed defects that are not reasonably ascertainable or readily accessible in a competently performed inspection. The home is under construction the inspection cannot predict future conditions.

NO WARRANTY IS EXPRESSED OR IMPLIED:

The goal of the inspection is to provide the client with an objective level of quality control and information about the condition of inspected components at the time of the inspection. Not all defects will be identified during this inspection. The inspection is conducted by a construction generalist and not by a technical specialist. The inspection is not and should not be considered a guarantee, warranty or insurance policy of any kind. The inspection is not a code compliant inspection. This report does not include inspection for mold, lead, asbestos, or wood destroying insects.

The person conducting your inspection is not a licensed structural engineer or other professional whose license authorizes the rendering of an opinion as to the structural integrity of a building or its other component parts.

Please refer to the pre-inspection agreement and the ASHI Standards of Professional Practice for Residential Pre-drywall Inspections for a full explanation of the scope of the inspection, its limitations and exclusions.

General Information

DATE OF INSPECTION

Monday, February 13, 2023

REPORT ID

23021204D

REPORT PREPARED FOR

Joe & Sue Homebuyers

(000) 000-0000

notreal@gmail.com

CLIENTS REPRESENTATIVE

N/A

PRESENT AT INSPECTION

Buyers

PROPERTY ADDRESS

125 New Home Rd Lot 34

Phoenixville, PA 19460

STRUCTURE STYLE

Colonial

APPROXIMATE AGE

New Construction

WEATHER AT THE TIME OF THE INSPECTION

Sunny

55 Degrees



REVISED

Dan Keogh Owner/Inspector

LICENSE & CERTIFICATION



DELAWARE HOME INSPECTION LICENSE

H4-0000167

INTERNATIONAL ASSOCIATION OF CERTIFIED HOME INSPECTORS

InterNACHI #13121612

THE AMERICAN SOCIETY OF HOME INSPECTORS

ASHI #212167

CERTIFIED PESTICIDE APPLICATOR

#703024

BU14262

PA DEP RADON

Certification #2109

INTERNATIONAL CODE COUNCIL #5228682

Residential Building Inspector
Residential Mechanical Inspector
Residential Plumbing Inspector
Residential Electrical Inspector
Residential Energy/Plans Examiner

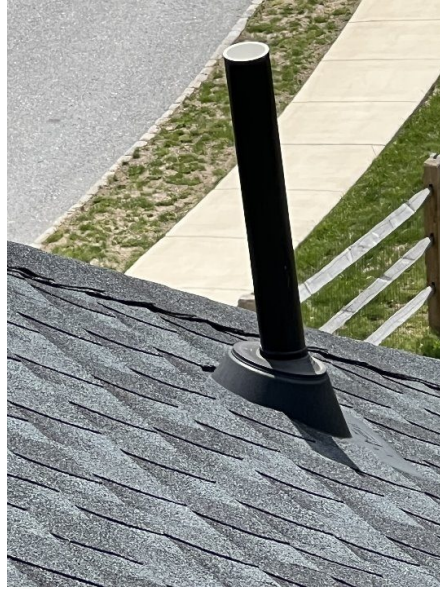
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ROOF COVERING

BASIC INFORMATION

Method used to Inspect: [Walked](#)

Roof Covering Materials: [Asphalt Fiberglass Shingles and Metal Standing Seam](#)



ROOF COVERINGS

The asphalt fiberglass shingles on the main roof structure appear to be in good condition.



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METAL ROOF

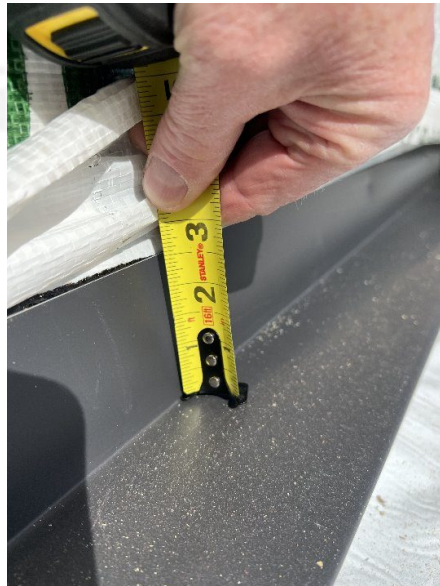
I inspected the metal roof. The standing seam metal roof appeared to be in good condition. The surface of the metal was in good condition. The seams are all tight.



FLASHINGS

The side wall flashing for the metal roof does not extend far enough up the wall. Sidewall flashing should extend up the exterior wall a minimum of 4 inches.

The sidewall flashing is less than 3 inches high. This will be an issue when installing the Hardi plank siding. Hardi plank siding requires 2 inches of clearance from the bottom of the siding to the roofing material. This will leave less than an inch of coverage over the top edge of the flashing.



R Code Reference**R905.2.8.3 Sidewall flashing.**

Flashing against a vertical sidewall shall be by the step-flashing and shall be not less than 4 inches in height of 4 inches in width and shall direct water away from the vertical sidewall into the roof or onto the gutter. Where siding is provided on the vertical sidewall, the vertical leg of the flashing shall be continuous under the siding. Where anchored masonry veneer is provided on the vertical sidewall, the base flashing shall be provided in accordance with this section and counter flashings shall be provided in accordance with section R703.8.2.2. Where exterior plaster or adhered masonry veneer is provided on the vertical sidewall, the base flashing shall be provided in accordance with this section and are 703.6.3

Code Reference**R905.2.8.4 Other flashing.**

Flashing against a vertical front wall, as well as soil stack, vent pipe and chimney flashing, shall be applied according to the asphalt shingle manufacturer's printed instructions.



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EXTERIOR WALL COVERINGS

BASIC INFORMATION

Water Resistant Barrier: [Green Guard](#)

WATER RESISTANT BARRIER

The house wrap has been installed. The upper layers are overlapped over the lower at least 2 inches. The joints are overlapped at least 6 inches.



WINDOW FLASHING

The windows have been flashed and integrated with the house wrap to form a continuous drainage plain down the wall using the builder's specifications. The bottom corners near the sill flashing need to be tapped. This is a possible water intrusion area.



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C A poor taping detail was noted on two of the windows at the front of the house. The flashing tape and house wrap should be better integrated to prevent water intrusion.



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DOOR FLASHING

The doors have been well flashing and the flashings have been properly integrated with the building paper to form a continuous drainage plain down the wall and around the door.



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FOUNDATION

BASIC INFORMATION

Foundation Structure: [Poured Concrete](#)

Structural Columns: [Steel](#)

Foundation Drains: [Interior with sump pump and Exterior/drained by gravity](#)

WATERPROOFING OR DAMPPROOFING

Water proofing has been installed on the exterior of the foundation walls. A drainage membrane can be seen on the foundation.



FOUNDATION WALLS

The foundation walls appeared to be free of defects. The walls were vertical with no abnormal cracking or honey combing observed.



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CONCRETE FOUNDATION SLABS

The concrete slab appears to be free of defects at this time. The builder installed control joints in the floor to control cracking should it accrue.



FOUNDATION DRAINS

The interior foundation drains terminate in the sump. Two ends of the foundation drain tile are visible at the sump.



The exterior foundation drain was not visible at the time of the inspection. The foundation drain has been covered with back fill. I recommend asking the builder where the exterior foundation drain terminates.

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FASTENERS, STRAPS, BOLTS

C Missing foundation bolts were noted. Foundation bolts without nuts and washers on them were noted. Bent and damaged foundation bolts were noted.

Five foundation bolts in the garage were noted without washers and nuts on them. In the basement above the left foundation wall, four foundation bolts are missing and three foundation bolts are damaged.

The bottom sill plate of each exterior wall should be anchored to the top of the foundation wall with 1/2 inch bolts. There should be a bolt within 6 inches of the end of each sill plate and the bolts are 6 ft on center. Each bolt should have a washer and a nut on it.



Garage



Garage



Garage



Left foundation wall



Left foundation wall



Left foundation wall

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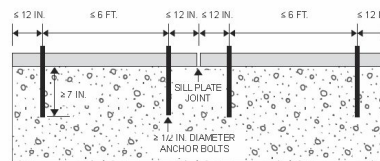
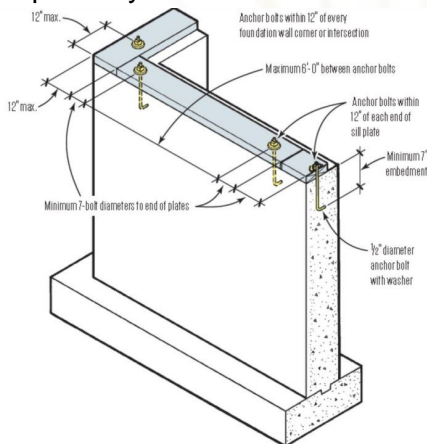
R Code Reference

R403.1.6 Foundation anchorage.

Wood sill plates and wood walls supported directly on continuous foundations shall be anchored to the foundation in accordance with this section.

Cold-formed steel framing shall be anchored directly to the foundation or fastened to wood sill plates in accordance with Section R505.3.1 or R603.3.1, as applicable. Wood sill plates supporting cold-formed steel framing shall be anchored to the foundation in accordance with this section.

Wood sole plates at all exterior walls on monolithic slabs, wood sole plates of braced wall panels at building interiors on monolithic slabs and all wood sill plates shall be anchored to the foundation with 1/2 inch diameter anchor bolts spaced not greater than 6 feet on center or approved anchors or anchorage straps spaced as required to provide equivalent anchorage to 1/2 inch diameter anchor bolts. bolts shall extend not less than 7 inches into concrete or grouted cells of concrete masonry units. The bolts shall be located in the middle third of the width of the plate. A nut and washer shall be tightened on each anchor bolt. There shall be not fewer than two bolts per plate section with one bolt located not more than 12 inches or less than seven bolt diameters from each end of the plate section. Interior bearing wall sole plates on monolithic slab foundations that are not part of a braced wall panel shall be positively anchored with approved fasteners. Sill plates and sole plates shall be protected against decay and termites where required by section R317 and R318



Foundation Anchor Locations

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STRUCTURAL COLUMNS

The steel columns are secured (anchored) at the bottom and top to prevent lateral displacement. The columns are plumb within 3/8 of an inch in 8 feet.



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FLOOR FRAMING

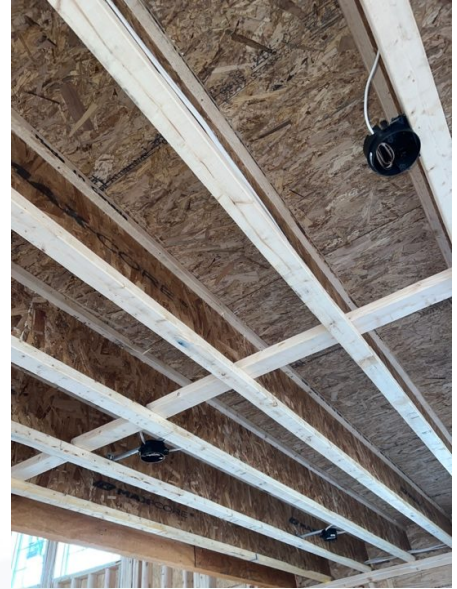
BASIC INFORMATION

Floor Structure: [Manufactured I Joists](#)

Floor Sheathing: [3/4 OSB](#)

FLOOR JOIST, TRUSSES

The floor joist appear to be free of defects at this time. At the time of this inspection the drilling and notching of the floor joist complied with section R502.8.



BEAMS & GIRDERS

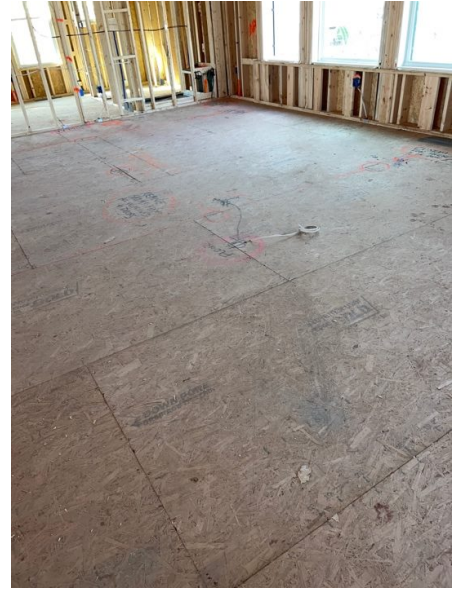
The steel beams are secure in the foundation beam pockets. The beams are bearing at least 3 inches on the concrete wall. (R502.6)



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FLOOR SHEATHING

The floor sheathing was free of defects. The sheathing is within allowable spans.



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WALL FRAMING

BASIC INFORMATION

Exterior Walls: 2x6 and 16 inches on center

Exterior Sheathing: 1/2 inch OSB

Interior Walls: 2x4 on 16 inch center

EXTERIOR WALLS

The exterior wall framing complies with the spacing in Table R602.3.1.

The top plates are secured with steel plates at the corners.

At the time of this inspection the drilling and notching in the studs complied with R602.6.

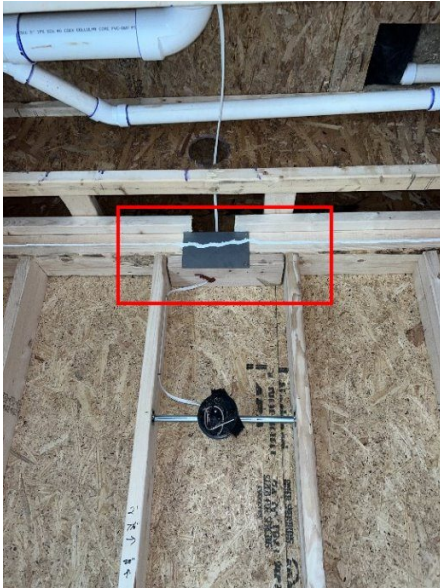
At the time of this inspection the notches in the top plate complied with R602.6.1.



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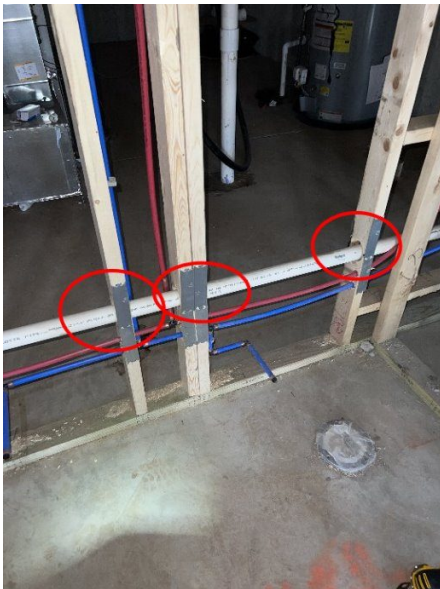
C A top plate that has been cut all the way through was noted in the back left first-floor bathroom wall. When the top plate of a loadbearing wall has been cut more than 50% to allow access for pipes, wires or ducts a metal tie must be installed to add structural support to the wall. The strap must extend 6 inches past the opening on both sides and have eight 10d nails installed on each side.



metal plate in wooden block are not
inadequate repair

INTERIOR WALLS

C Improper bored holes were noted in the basement bathroom and second-floor center bathroom. The holes exceed 60% of the stud width that are closer than 5/8 of an inch to the edge of the stud. Bored holes in studs of interior nonbearing walls may not exceed 60% of the stud depth and may not be within 5/8 of the stud edge. The hole may not be located in the same section as a cut or notch.



basement bathroom wall



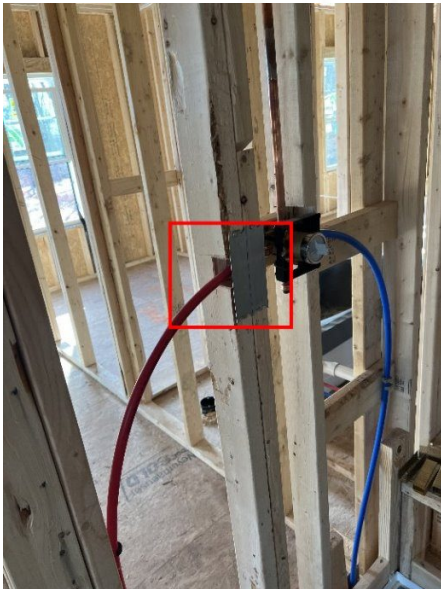
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second floor center bathroom



C Over notched stud was noted near the shower in the second-floor right bathroom wall. Studs in nonbearing interior walls may not be cut or notched more than 40% of their width.



second floor right bathroom



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R Code Reference

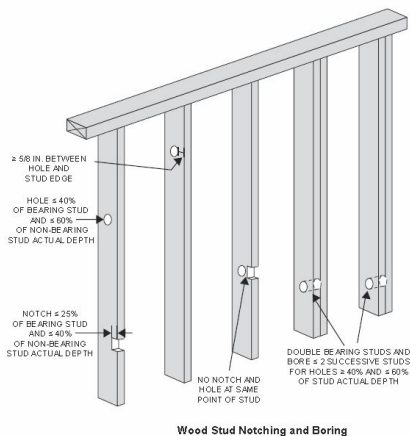
R602.6 Drilling and notching-studs.

Drilling and notching of studs shall be in accordance with the following:

1. Notching. Any stud in an exterior wall or bearing partition may be cut or notched to a depth not exceeding 25 percent of its width. Studs in nonbearing partitions shall be permitted to be notched to a depth not to exceed 40 percent of a single stud width.

2. Drilling. Any stud shall be permitted to be bored or drilled, provided that the diameter of the resulting hole is no more than 60 percent of the stud width, the edge of the hole is no more than 5/8 inch (16 mm) to the edge of the stud, and the hole is not located in the same section as a cut or notch. Studs located in exterior walls or bearing partitions drilled over 40 percent and up to 60 percent shall also be doubled with no more than two successive doubled studs bored. See Figures R602.6(1) and R602.6(2).

Exception: Use of approved stud shoes is permitted when they are installed in accordance with the manufacturer's recommendations.



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C missing metal ties were noted in the top plates of the two rear interior walls that separate the garage from the living space. Both these walls are loadbearing walls. When the top plate of a loadbearing wall has been cut more than 50% to allow access for pipes, wires or ducts a metal tie must be installed to add structural support to the wall. The strap must extend 6 inches past the opening on both sides and have eight 10d nails installed on each side. The metal shields that are in place are not adequate.



Rear wall of the garage



Steel plate not adequate



Rear wall of the garage



Steel plate not adequate

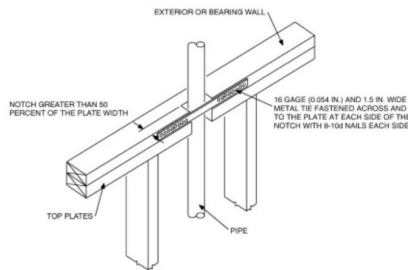


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R Code Reference

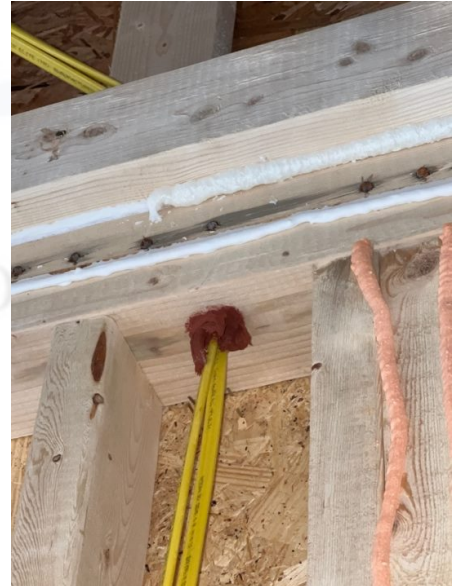
R602.6.1 Drilling and notching of the top plate.

When piping or ductwork is placed in or partly in an exterior wall or interior loadbearing wall, necessitating cutting, drilling and notching of the top plate by more than 50% of its width, a galvanized metal tie not less than 0.054 inch thick and 1 1/2 inches wide shall be fastened across and to the plate at each side of the opening with not less than eight 10d nails having a minimum length of 1 1/2 inches at each side or equivalent. The metal tie must extend a minimum of 6 inches past the opening.



FIREBLOCKING

and ducts should be sealed where they pass through wall plates and floors. The sealing off of wall cavities and floors helps prevent the spread of fire. (R302.11)



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ROOF FRAMING

BASIC INFORMATION

Roof Structure: [Engineered roof trusses](#)

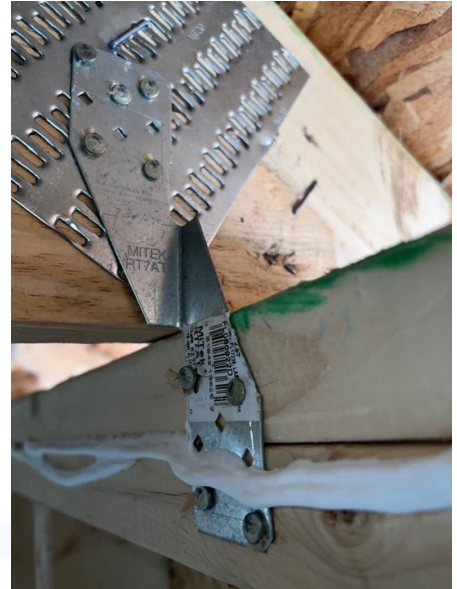
Rafter Dimension: [2x4 and 24 inches on center](#)

Roof Sheathing: [1/2 OSB](#)

Attic Ventilation: [Ridge vents and Soffit vents](#)

RAFTERS & TRUSSES

The roof trusses are strapped to the exterior walls to prevent up lift. .



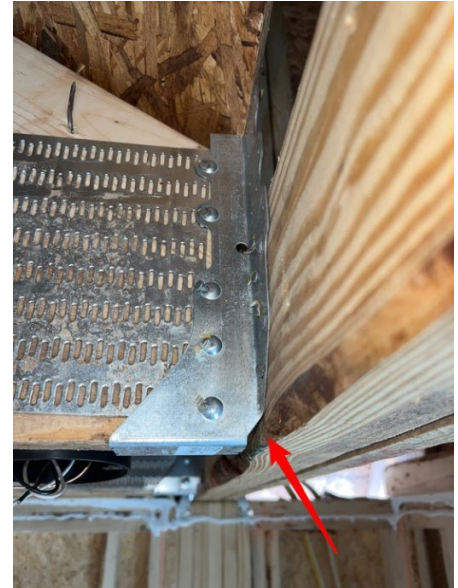
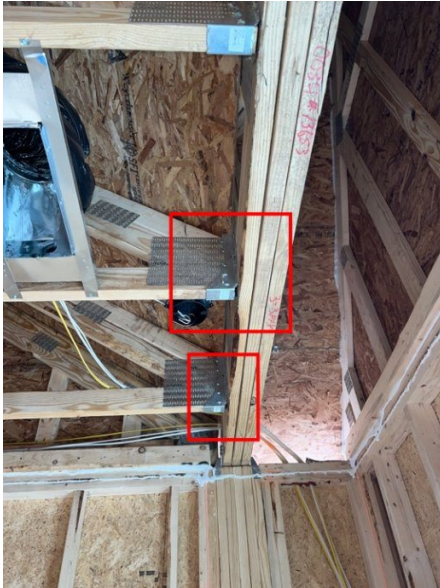
The roof trusses have been laterally braced to prevent rotation.



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C Gaps were noted between all the ends of the roof trusses and the girder in the front right bedroom. Gaps between the trusses and the girder should not exceed 1/8 of an inch. When gaps exceed 1/8 of an inch the capacity of the connection is reduced.

The truss manufacturer should be consulted to determine if corrective action is needed.



R **Simpson Strong-Tie**
Technical Bulletin
Allowable Loads for Foist Hangers With Gaps

In all cases involving a gap between the end of the carry trusts in the girder that exceed 1/8 of an inch the truss manufacturer should be notified to ensure that the truss is not adversely affected by the gap. In addition all field remedies and repairs for gaps must be designed and approved by the trusts designer or another design professional.

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ROOF SHEATHING

The roof sheathing is spaced to allowable in table R503.2.1(1). The sheathing was free of visible defects.



ATTIC ACCESS

The attic access is in the back left second bedroom and meets the required minimum size, 22 inches by 30 inches. (R807.1)



Back left bedroom



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WINDOWS & DOORS

BASIC INFORMATION

Window Type: [Single hung](#)

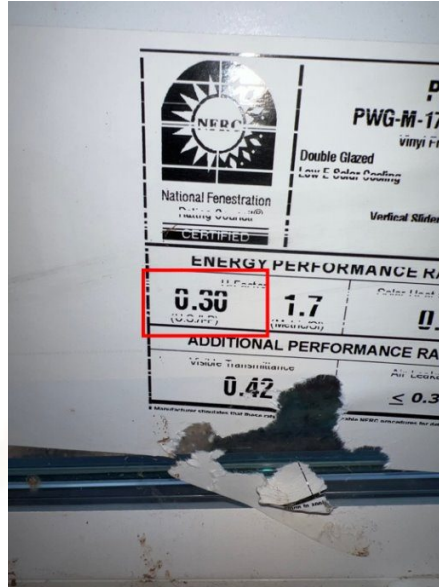
Window Material: [Vinyl](#)

Tempered Glass Above Tub: [Yes](#)

Tempered Glass on Landing: [Yes](#)

WINDOWS

All the windows meet the required U factor rating. There is tempered glass in all the required locations.



C Missing and poorly applied foam insulation was noted around many of the windows. Large gaps can be seen between the windows and the framing. These gaps should be filled with foam to prevent air leakage.



basement window



Basement window



Front center bedroom

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Front center bedroom



rear family room



Rear family room



rear family room



Rear family room



first floor rear bedroom

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First floor rear bedroom

R Code Reference

N1102.4 Air leakage.

N1102.4.1 Building thermal envelope.

The building thermal envelope shall be durably sealed to limit infiltration. The sealing methods between dissimilar materials shall allow for differential expansion and contraction. The following shall be caulked, gasketed, weatherstripped or otherwise sealed with an air barrier material, suitable film or solid material.

1. All joints, seams and penetrations.
2. Site-built windows, doors and skylights.
3. Openings between window and door assemblies and their respective jambs and framing.
4. Utility penetrations.
5. Dropped ceilings or chases adjacent to the thermal envelope.

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C Bowing trim boards were noted on the three lower family room windows. The top piece of trim is bowed in the center of all three windows.



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DOORS

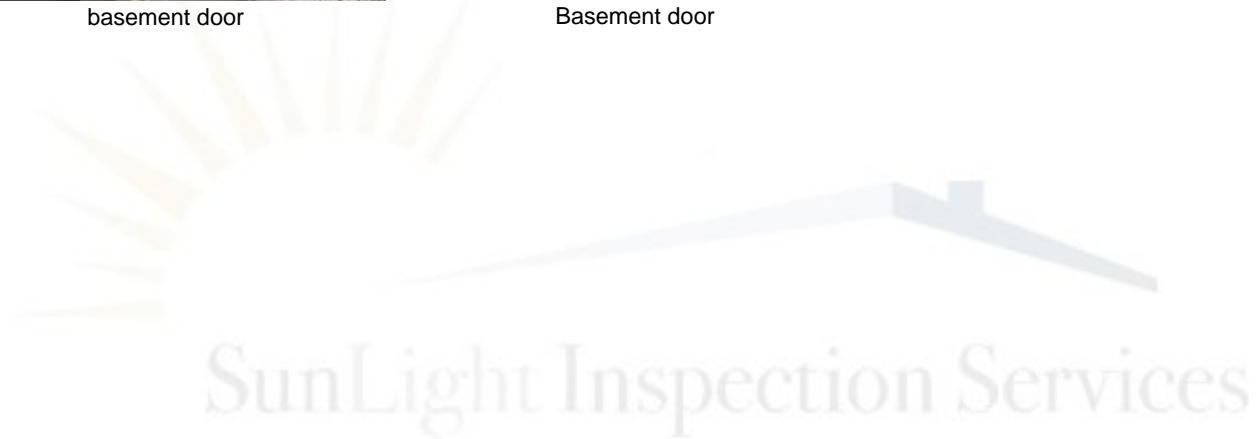
C Missing and poorly applied foam insulation was noted around the basement door. Large gaps can be seen between the door and the framing. These gaps should be filled with foam to prevent air leakage.



basement door



Basement door



REVISED

INTERIOR COMPONENTS

BASIC INFORMATION

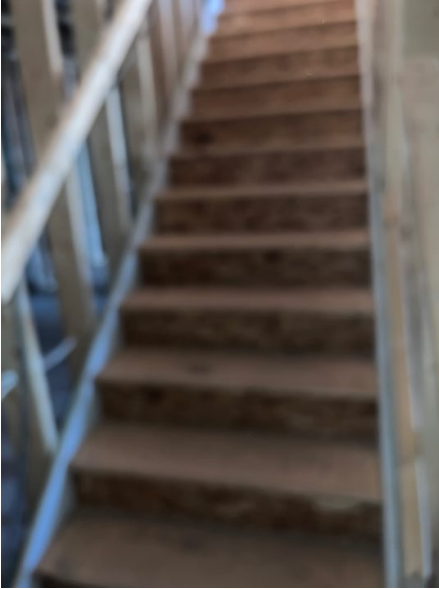
Bathroom Vented: **Yes**

Clothes Dryer Vent to Exterior: **Yes**

Kitchen Exhaust to exterior: **Yes**

STAIRS

The stairs are prefabricated and comply with the PA UCC requirements for stairs.



BATH EXHAUST

The bath fans are exhausting to the exterior as required. .



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CLOTHES DRYER EXHAUST

The dryer duct is vented to the exterior. The duct is smooth metal, 4 inches in diameter, taped together and supported every 4 ft.



KITCHEN EXHAUST.

The kitchen exhaust vent to the exterior.



on Services

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PLUMBING SYSTEM

BASIC INFORMATION

Water Supply Piping: [Cross linked polyethylene \(PEX\)](#)

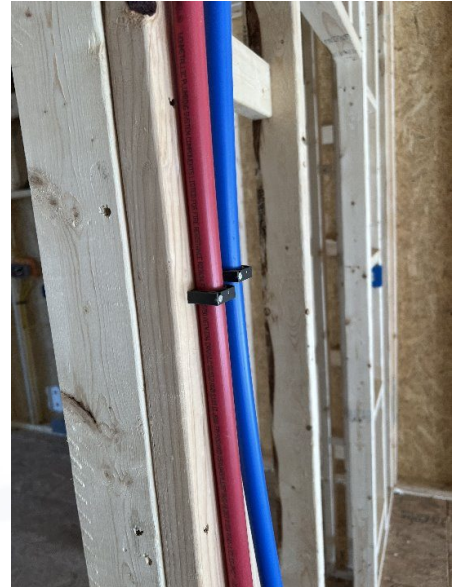
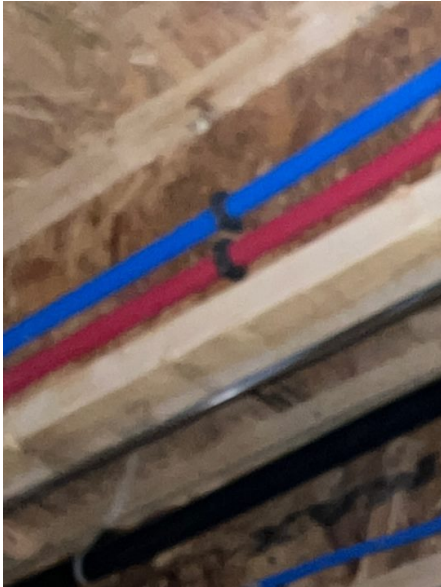
Sewage Waste Piping: [PVC](#)

Water Heater: [Gas water heater](#)

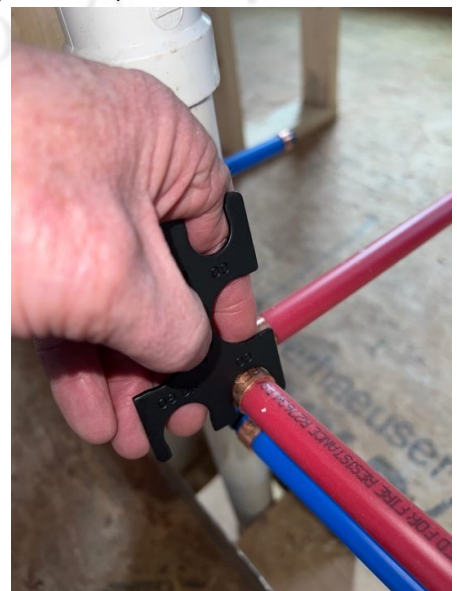
Fire Sprinklers: [No](#)

WATER SUPPLY PIPES

The water distribution lines are properly supported. The water lines near the edge of framing are protected by steel plates. (2603.2.1)



The water lines near the edge of framing are protected by steel plates. (2603.2.1)

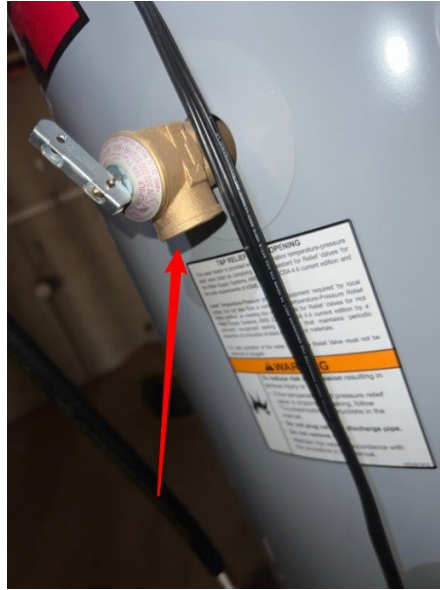


Checking the crimping rings

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WATER HEATER

The water heater is in place. The flue pipe, T&P valve extension, and overflow pan drain line still need to be installed.



extension pipe needed



flue pipe needs to be connected



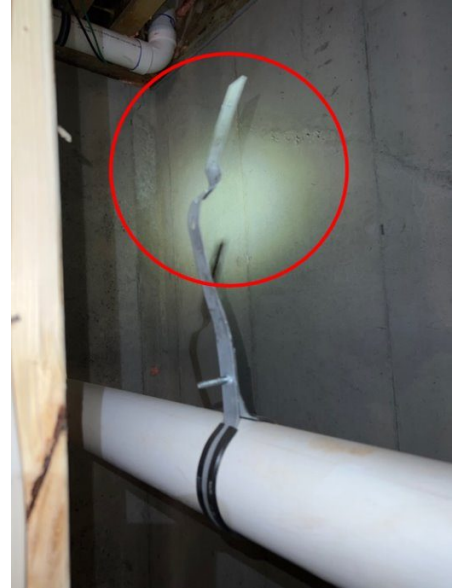
drain line needs to be installed and extended to the sump



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DRAIN & WASTE PIPES

C The waste lines are properly sloped and supported. One hanger at the back left corner has come loose and needs to be reinstalled.



The hanger needs to be reinstalled

The waste lines are protected with steel plates where necessary.



REVISED

ELECTRICAL SYSTEM

BASIC INFORMATION

Service Cable Location: [Underground service line](#)

Service Size: [200 AMP](#)

Service Grounding: [Grounding rod exterior](#)

ELECTRICAL METER

With normal hand pressure, the electric meter felt securely attached to the house.
There is no major rust or corrosion visible on the meter box.



MAIN ELECTRICAL PANEL

The electrical panel has been well mounted. Proper clearances were noted around the panel.



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ELECTRICAL WIRING

The electrical wires have been protected by steel plates where they pass through wall studs and wall plates and are less than 1 1/4 inch from the edge of the framing.



RECEPTALCE & SWITCH BOXES

Receptacle boxes are spaced with no point along a wall more then 6 feet from a receptacle outlet.

Receptacle box and switch depths are correct.

The electrical cables were supported within 8 inches of the boxes.



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HVAC SYSTEM

BASIC INFORMATION

Heating Type: [Two gas furnaces](#)

Cooling Type: [Two central air conditioning](#)

HEATING SYSTEM

The gas furnaces and air conditioning evaporator coils were in place. There is an overflow pan under each HVAC system.



The HVAC system for the second floor has been installed in the attic. There is a walking surface to the HVAC system. There is a working surface in front of the equipment.



REVISED

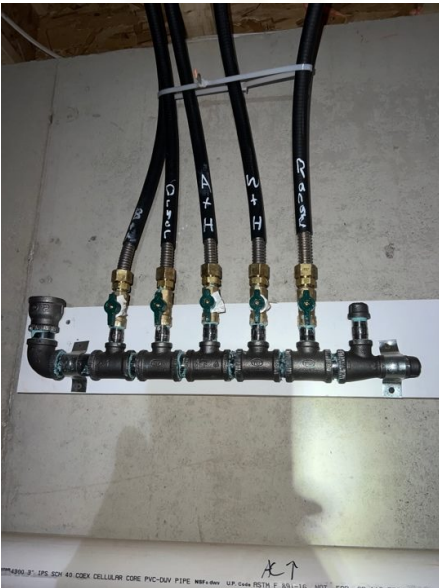
DUCT WORK

The seams on the HVAC duct work have been well sealed, good. (M1601.4.1)



GASS LINE

The gas lines in the home are corrugated stainless steel tubing (CSST). The gas manifold is well mounted. There were no gas leaks detected at the manifold.



REVISED

Steel plates protect the gas line where it passes through the framing, good.



Report Summary

EXTERIOR WALL COVERINGS WINDOW FLASHING

C 1: A poor taping detail was noted on two of the windows at the front of the house. The flashing tape and house wrap should be better integrated to prevent water intrusion.

FOUNDATION FASTENERS, STRAPS, BOLTS

C 2: Missing foundation bolts were noted. Foundation bolts without nuts and washers on them were noted. Bent and damaged foundation bolts were noted. Five foundation bolts in the garage were noted without washers and nuts on them. In the basement above the left foundation wall, four foundation bolts are missing and three foundation bolts are damaged.

The bottom sill plate of each exterior wall should be anchored to the top of the foundation wall with 1/2 inch bolts. There should be a bolt within 6 inches of the end of each sill plate and the bolts are 6 ft on center. each bolt should have a washer and a nut on it.

WALL FRAMING EXTERIOR WALLS

C 3: A top plate that has been cut all the way through was noted in the back left first-floor bathroom wall.

When the top plate of a loadbearing wall has been cut more than 50% to allow access for pipes, wires or ducts a metal tie must be installed to add structural support to the wall. The strap must extend 6 inches past the opening on both sides and have eight 10d nails installed on each side.

WALL FRAMING INTERIOR WALLS

C 4: Improper bored holes were noted in the basement bathroom and second-floor center bathroom. The holes exceed 60% of the stud width that are closer than 5/8 of an inch to the edge of the stud. Bored holes in studs of interior nonbearing walls may not exceed 60% of the stud depth and may not be within 5/8 of the stud edge. The hole may not be located in the same section as a cut or notch.

C 5: Over notched stud was noted near the shower in the second-floor right bathroom wall. Studs in nonbearing interior walls may not be cut or notched more than 40% of their width.

C 6: missing metal ties were noted in the top plates of the two rear interior walls that separate the garage from the living space. Both these walls are loadbearing walls. When the top plate of a loadbearing wall has been cut more than 50% to allow access for pipes, wires or ducts a metal tie must be installed to add structural support to the wall. The strap must extend 6 inches past the opening on both sides and have eight 10d nails installed on each side.

The metal shields that are in place are not adequate.

ROOF FRAMING RAFTERS & TRUSSES

C 7: Gaps were noted between all the ends of the roof trusses and the girder in the front right bedroom. Gaps between the trusses and the girder should not exceed 1/8 of an inch. When gaps exceed 1/8 of an inch the capacity of the connection is reduced.

The truss manufacturer should be consulted to determine if corrective action is needed.

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WINDOWS & DOORS WINDOWS

C 8: Missing and poorly applied foam insulation was noted around many of the windows. Large gaps can be seen between the windows and the framing. These gaps should be filled with foam to prevent air leakage.

C 9: Bowing trim boards were noted on the three lower family room windows. The top piece of trim is bowed in the center of all three windows.

WINDOWS & DOORS

C 10: Missing and poorly applied foam insulation was noted around the basement door. Large gaps can be seen between the door and the framing. These gaps should be filled with foam to prevent air leakage.

PLUMBING SYSTEM DRAIN & WASTE PIPES

C 11: The waste lines are properly sloped and supported. One hanger at the back left corner has come loose and needs to be reinstalled.

ROOF COVERING FLASHINGS

R 12: Code Reference

R905.2.8.3 Sidewall flashing.

Flashing against a vertical sidewall shall be by the step-flashing and shall be not less than 4 inches in height of 4 inches in width and shall direct water away from the vertical sidewall into the roof or onto the gutter. Where siding is provided on the vertical sidewall, the vertical leg of the flashing shall be continuous under the siding. Where anchored masonry veneer is provided on the vertical sidewall, the base flashing shall be provided in accordance with this section and counter flashings shall be provided in accordance with section R703.8.2.2. Where exterior plaster or adhered masonry veneer is provided on the vertical sidewall, the base flashing shall be provided in accordance with this section and are 703.6.3

Code Reference

R905.2.8.4 Other flashing.

Flashing against a vertical front wall, as well as soil stack, vent pipe and chimney flashing, shall be applied according to the asphalt shingle manufacturer's printed instructions.

FOUNDATION FASTENERS, STRAPS, BOLTS

R 13: Code Reference

R403.1.6 Foundation anchorage.

Wood sill plates and wood walls supported directly on continuous foundations shall be anchored to the foundation in accordance with this section.

Cold-formed steel framing shall be anchored directly to the foundation or fastened to wood sill plates in accordance with Section R505.3.1 or R603.3.1, as applicable. Wood sill plates supporting cold-formed steel framing shall be anchored to the foundation in accordance with this section.

Wood sole plates at all exterior walls on monolithic slabs, wood sole plates of braced wall panels at building interiors on monolithic slabs and all wood sill plates shall be anchored to the foundation with 1/2 inch diameter anchor bolts spaced not greater than 6 feet on center or approved anchors or anchorage straps spaced as required to provide equivalent anchorage to 1/2 inch diameter anchor bolts. bolts shall extend not less than 7 inches into concrete or grouted cells of concrete masonry units. The bolts shall be located in the middle third of the width of the plate. A nut and washer shall be tightened on each anchor bolt. There shall be not fewer than two bolts per plate section with one bolt located not more than 12 inches or less than seven bolt diameters from each end of the plate section. Interior bearing wall sole plates on monolithic slab foundations that are not part of a braced wall panel shall be positively anchored with approved fasteners. Sill plates and sole plates shall be protected against decay and termites where required by section R317 and R318

WALL FRAMING INTERIOR WALLS

R 14: Code Reference

R602.6 Drilling and notching-studs.

Drilling and notching of studs shall be in accordance with the following:

- 1. Notching.** Any stud in an exterior wall or bearing partition may be cut or notched to a depth not exceeding 25 percent of its width. Studs in nonbearing partitions shall be permitted to be notched to a depth not to exceed 40 percent of a single stud width.
- 2. Drilling.** Any stud shall be permitted to be bored or drilled, provided that the diameter of the resulting hole is no more than 60 percent of the stud width, the edge of the hole is no more than 5/8 inch (16 mm) to the edge of the stud, and the hole is not located in the same section as a cut or notch. Studs located in exterior walls or bearing partitions drilled over 40 percent and up to 60 percent shall also be doubled with no more than two successive doubled studs bored. See Figures R602.6(1) and R602.6(2).

Exception: Use of approved stud shoes is permitted when they are installed in accordance with the manufacturer's recommendations.

R 15: Code Reference

R602.6.1 Drilling and notching of the top plate.

When piping or ductwork is placed in or partly in an exterior wall or interior loadbearing wall, necessitating cutting, drilling and notching of the top plate by more than 50% of its width, a galvanized metal tie not less than 0.054 inch thick and 1 1/2 inches wide shall be fastened across and to the plate at each side of the opening with not less than eight 10d nails having a minimum length of 1 1/2 inches at each side or equivalent. The metal tie must extend a minimum of 6 inches past the opening.

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ROOF FRAMING RAFTERS & TRUSSES

R 16: Simpson Strong-Tie Technical Bulletin Allowable Loads for Foist Hangers With Gaps

In all cases involving a gap between the end of the carry trusses in the girder that exceed 1/8 of an inch the truss manufacturer should be notified to ensure that the truss is not adversely affected by the gap. In addition all field remedies and repairs for gaps must be designed and approved by the truss designer or another design professional.

WINDOWS & DOORS WINDOWS

R 17: Code Reference N1102.4 Air leakage.

N1102.4.1 Building thermal envelope.

The building thermal envelope shall be durably sealed to limit infiltration. The sealing methods between dissimilar materials shall allow for differential expansion and contraction. The following shall be caulked, gasketed, weatherstripped or otherwise sealed with an air barrier material, suitable film or solid material.

1. All joints, seams and penetrations.
2. Site-built windows, doors and skylights.
3. Openings between window and door assemblies and their respective jambs and framing.
4. Utility penetrations.
5. Dropped ceilings or chases adjacent to the thermal envelope.

SunLight Inspection Services