Product Description:

FurringMaster 3-Vertical/Horizontal Vent is a structural, 20 gauge steel hat-channel with corrugated flanges for superior airflow both vertically and horizontally. FM3-VHV is AZ50 ZincAlume® coated for additional protection and obtains 37ksi strength, typical 39-59, with good ductility. See page 2 for Material Specification Sheet. FM3-VHV is manufactured in either a 3/8" _or_ 3/4" hat-channel to suit any projects needs.

Tools needed:

- Level
- Chalk Line/Laser
- Cordless Drill
- Hammer/Nail Gun
- Tin Snips/Chop Saw
- Tape Measure
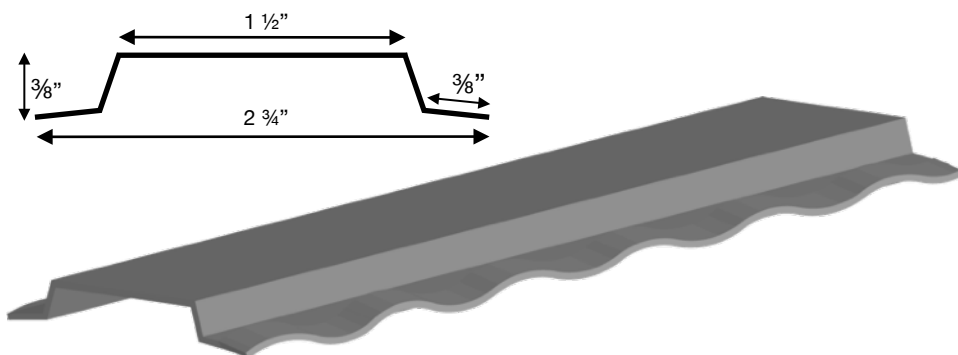
Fasteners:

- If using nails, we recommend using a pin nailer (ET&F or equivalent)
- If using screws, we recommend referencing our Fastening Guide PDF
- When installing over Continuous Insulation, set drill as not to over tighten fasteners, which may result in compression into insulation & decreased drainage capability through flanges.
- Refer to your siding manufacturer for requirements regarding cladding attachment

Job Site Safety & Preparation:

Always wear eye protection and gloves. Make sure the wall is free from any structural defects and all membranes or flashing are properly installed per manufacturer's requirements. Before installation, check your local building code requirements and read all manufacturer's installation instructions.

IMPORTANT:

Failure to follow GGGS LLC written installation instructions in accordance with project engineer/architect/owner recommendations and applicable building codes may violate local laws, affect building envelope performance, and possibly void warranty coverage. Every project is unique and the full details of each should be taken into consideration on a case-by-case basis by the architect, engineer, contractor, and installer along with these general installation instructions. GGGS LLC is not responsible for any moisture intrusion/damage or structural failure within the wall assembly, blowout on backside of the fiber-cement siding caused by fastener penetration, or cracking/delamination of the cladding. Failure to comply with all health and safety regulations when cutting and installing this product may result in personal injury. GGGS LLC is not responsible or liable for any injuries or loss of any kind during use of any of GGGS LLC's products. Before installation, confirm you are using the correct product instructions by visiting www.rollonrainscreen.com

steelscape

ZINCALUME® Steel Grade 37
Grade Data Sheet

General Description
ZINCALUME® Steel Grade 37 - hot-dip zinc/aluminum alloy-coated structural steel with a spangled surface and guaranteed minimum yield strength of 37 ksi with good ductility.

Typical Uses
Roll-formed roofing and siding.

Dimensions				
Typical Thickness (Inches)	Maximum .035"	Typical width	Maximum 48.9"	
	Minimum .013"		Minimum 26"	

Maximum and minimum thicknesses outside the typical range stated above may be supplied on an inquiry basis only.

Mechanical Properties			Chemical Composition	
Steel base	**Guaranteed Minimum**	**Typical**	**Maximum Percent by Weight**	
Longitudinal tensile				
Yield strength, ksi	37	39-59	Carbon (C)	0.20
Tensile strength, ksi	52	54-67	Phosphorus (P)	0.04
Elongation in 2 inch, minimum %	18	20-40	Manganese (Mn)	1.15
Hardness, HRB		50-70	Sulfur (S)	0.04
Supply Condition	**Standard**	**Optional**	**Fabricating Performance (1-Limited to 5-Excellent, NR-Not Recommended)**	
Coating class	AZ50	AZ55	Bending	5
Tension leveling	Leveled		Drawing	NR
Surface conditioning	Not Skin-passed	Skin passed,	Pressing	NR
		(paint line feed)	Pittsburgh Lock Seam	NR
			Roll-forming	5
Chemical treatment	Passivated		Welding *	5
			Painting **	5
ZINCALUME® Plus	Resin Coated			
Oiling	Not Oiled	Oiled		
Branding	Not Branded			

Optional supply conditions and coating classes may be subject to dimensional restriction.

*   Design must allow for some strength reduction near welds.

** Maximum thickness suitable for organic coil coating is 0.0329"

Installing FM3-VHV as Bottom Starter Vent

- Measure 3" up from the bottom of the substrate on both sides of the wall
- Snap a chalkline from one end to the other (make sure line is level & straight)
- Measure & cut a piece of FM3-VHV to the length of the wall
- Line up the _**top**_ edge of FM3-VHV strip with the chalk line
- Fasten every 16" on _**both**_ flanges into the framing
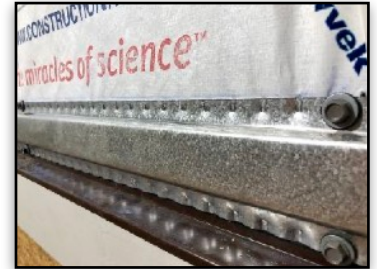
Installing FM3-VHV as Top Vent

- Measure 3" down from the soffit on both sides of the wall
- Snap a chalkline from one end to the other (make sure line is level & straight)
- Measure & cut a piece of FM3-VHV to the length of the wall
- Line up the _**top**_ edge of FM3 strip with chalk line
- Fasten every 16" on **both** flanges into the framing

Installing FM3-VHV _Horizontally_

- Staring from the bottom, measure 16" up from your original chalkline of on both sides of the wall
- Snap a new chalkline from one end to the other (make sure line is level & straight)
- Measure & cut a piece of FM3-VHV to the length of the wall
- Line up the _**top**_ edge of FM3-VHV with chalkline
- Fasten every 16" on _**both**_ flanges into the framing
- Repeat every 16" up the wall

Inside Corner - _Horizontal_ Install

- Complete FM3-VHV installation steps on the 1st adjoining wall, ending at the corner flush against 2nd adjoining wall
- Begin the 2nd course of FM3-VHV at 3/8" from 1st wall (flush against 1st course of FM3-VHV)

Outside Corner - _Horizontal_ Install

- Complete FM3-VHV installation steps on the 1st adjoining wall, ending at the corner flush with end of 1st wall
- Begin the 2nd course of FM3-VHV at 3/8" beyond end of 2nd wall (flush with top of hat-channel of 1st course)
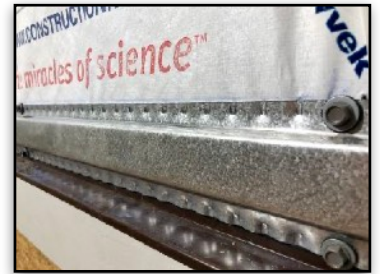
Installing FM3-VHV as Bottom Starter Vent

- Measure 3" up from the bottom of the substrate on both sides of the wall
- Snap a chalk line from one end to the other (make sure line is level & straight)
- Measure & cut a piece of FM3-VHV to the length of the wall
- Line up the _**top**_ edge of FM3-VHV with the chalk line
- Fasten every 16" on _**both**_ flanges into the framing

Installing FM3-VHV as Top Vent

- Measure 3" down from the soffit on both sides of the wall
- Snap a chalk line (make sure line is level and straight)
- Measure & cut a piece of FM3-VHV to length of wall
- Line up the _**top**_ edge of FM3-VHV with chalk line
- Fasten every 16" on _**both**_ flanges into the framing

Installing FM3-VHV _Vertically_

- Measure and cut a piece of FM3-VHV to the length of the wall (accounting for Top & Bottom Vents)
- Line up the edge of FM3-VHV flush with edge of wall
- Attach every 8" on flange that is directly over stud/framing) every 8"
- Repeat every 16" across the wall

Inside Corner - _Vertical_ Install
- Repeat FM3 installation steps on one of the adjoining walls, making sure that the Vertical edge of FM3-VHV is flush with the edge/corner of the wall
- Repeat FM3 installation steps on the adjoining wall, making sure that the Vertical edge of FM3-VHV is flush with the edge/corner of the wall
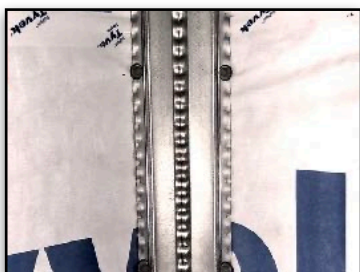
Outside Corner - _Vertical_ Install
- Repeat FM3 installation steps on one of the adjoining walls, making sure that the Vertical edge of FM3-VHV is flush with the edge/corner of the wall
- Repeat FM3 installation steps on the adjoining wall, making sure that the Vertical edge of FM3-VHV is flush with the edge/corner of the wall
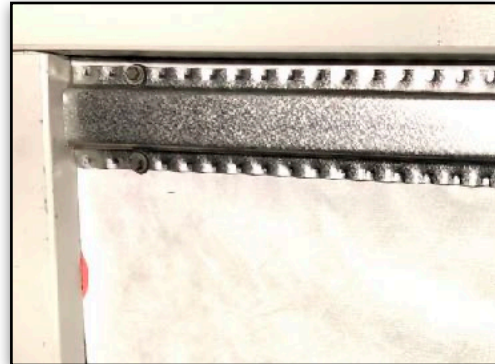

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# ABOVE AND BELOW OPENINGS (windows, doors, etc)

BELOW OPENINGS

- Measure 3" down from the bottom of the trim on both sides of the opening (this leaves 1/4" gap for venting)
- Snap a chalkline from one end to the other (make sure line is level & straight)
- Measure & cut a piece of FM3-VHV to length
- Line up the _**bottom**_ edge of FM3 strip with chalk line
- Attach with two fasteners (one on each flange) every 16" into the framing

ABOVE OPENINGS

- Measure 3" up from the top of the Z-flashing on both sides of the opening (this leaves 1/4" gap for venting)
- Snap a chalk line from one end to the other (make sure line is level and straight)
- Measure & cut a piece of FM3-VHV to the length of the wall
- Line up the _**bottom**_ edge of FM3-VHV with the chalk line
- Attach with two fasteners (one on each flange) every 16" into the framing
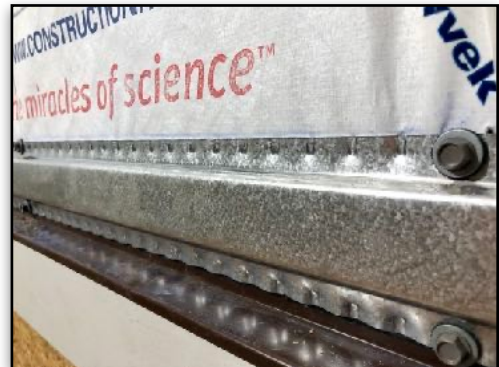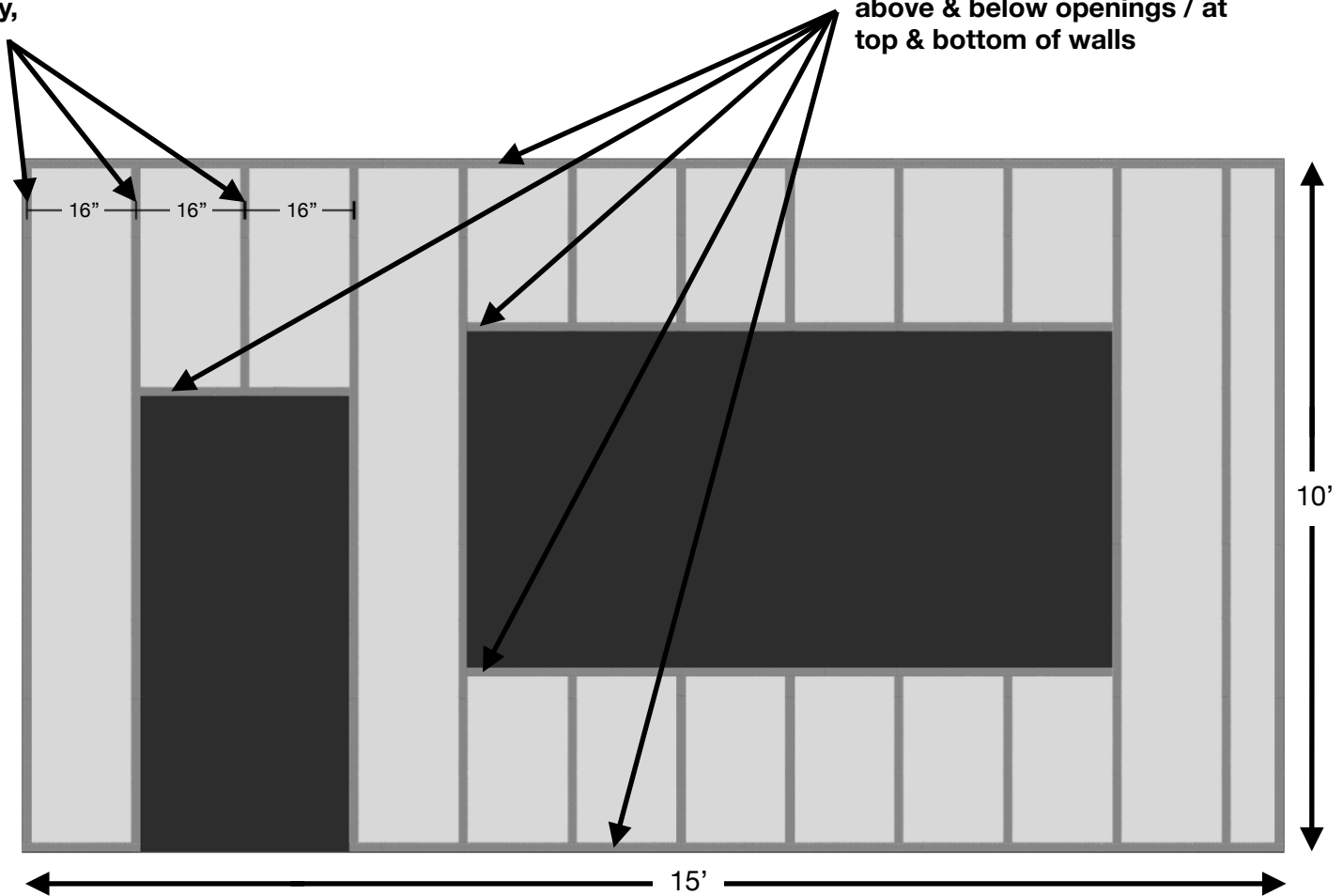

PLEASE CONTACT GGGS LLC FOR SPECIFIC INSTALLATION OVER ANGLED WALLS OR ANY ADDITIONAL QUESTIONS AT 402-686-4257. WWW.ROLLONRAINSCREEN.COM

FM3-VHV installed Vertically, 16" o.c.

FM3-VHV installed Horizontally above & below openings / at top & bottom of walls

16"   16"   16"

10'

15'

Wall Assembly 1a, Side-view:
FM3-VHV 3/8" Furring installed Vertically over Rigid Insulation over HouseWrap/WRB over Gypsum

(AIRFLOW)

Fastening Guide

3.5" hex-head screw, installed every 8" on Valley of *both* Flanges

Fiber Cement Panel Siding

FM3-VHV 3/8" furring installed Vertically every 16" o.c.

Wood/Steel Frame

2" Continuous/Rigid Insulation

Housewrap/WRB

5/8" Gypsum Board

* Pre-Drill FM3-VHV strips
* Self-Tapping screws recommended for attachment of Fiber Cement (to prevent blowout)

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Wall Assembly 1a, Top-view:
FM3-VHV 3/8" Furring installed Vertically over Rigid
Insulation over HouseWrap/WRB over Gypsum

**3.5" hex-head screw, installed
every 8" on Valley of *both* Flanges**

AIRFLOW

Fiber Cement Panel Siding

2" Continuous/Rigid Insulation

Housewrap/WRB

5/8" Gypsum Board

**FM3-VHV 3/8" furring installed
Vertically every 16" o.c.**
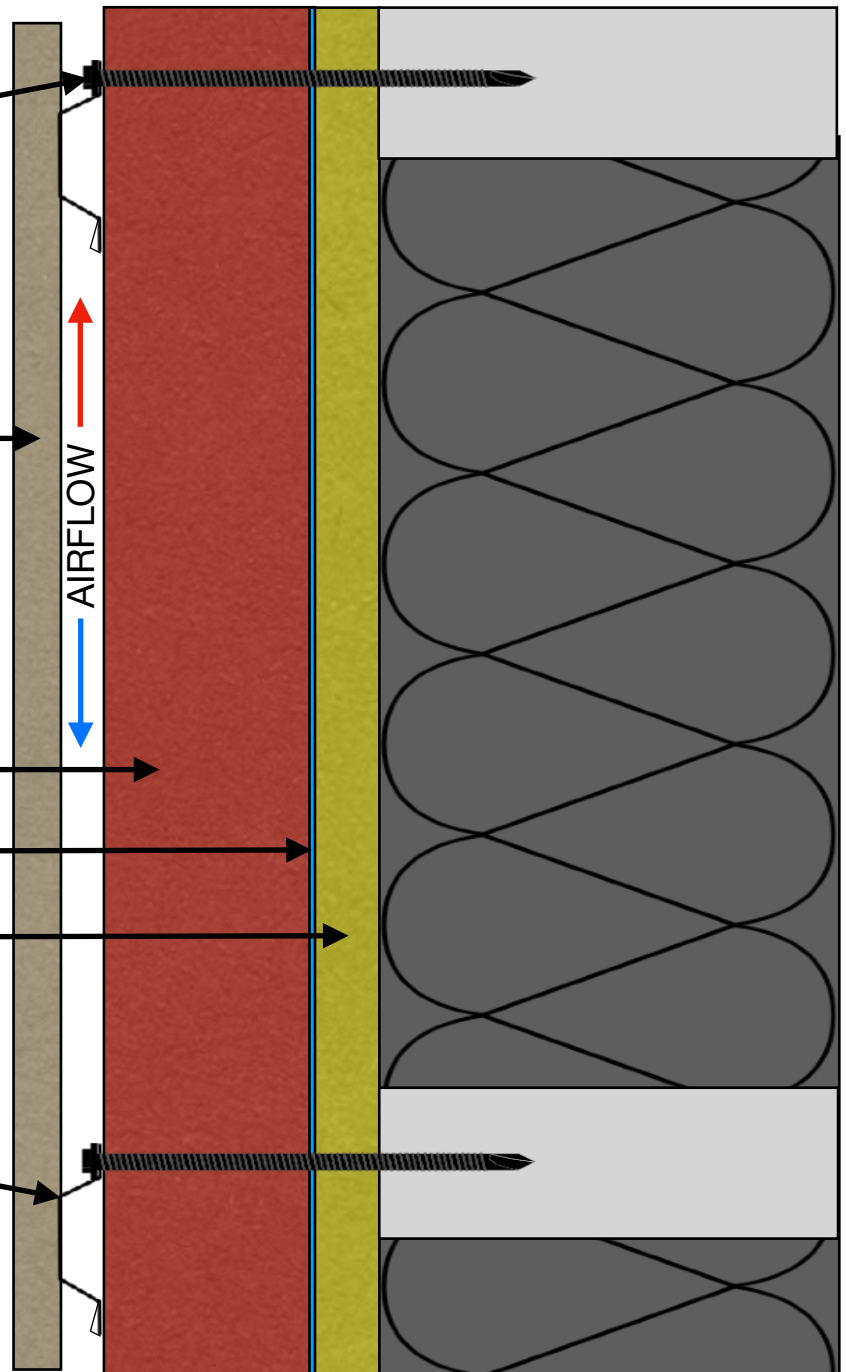
* Pre-Drill FM3-VHV strips
*** Self-Tapping screws recommended for attachment of
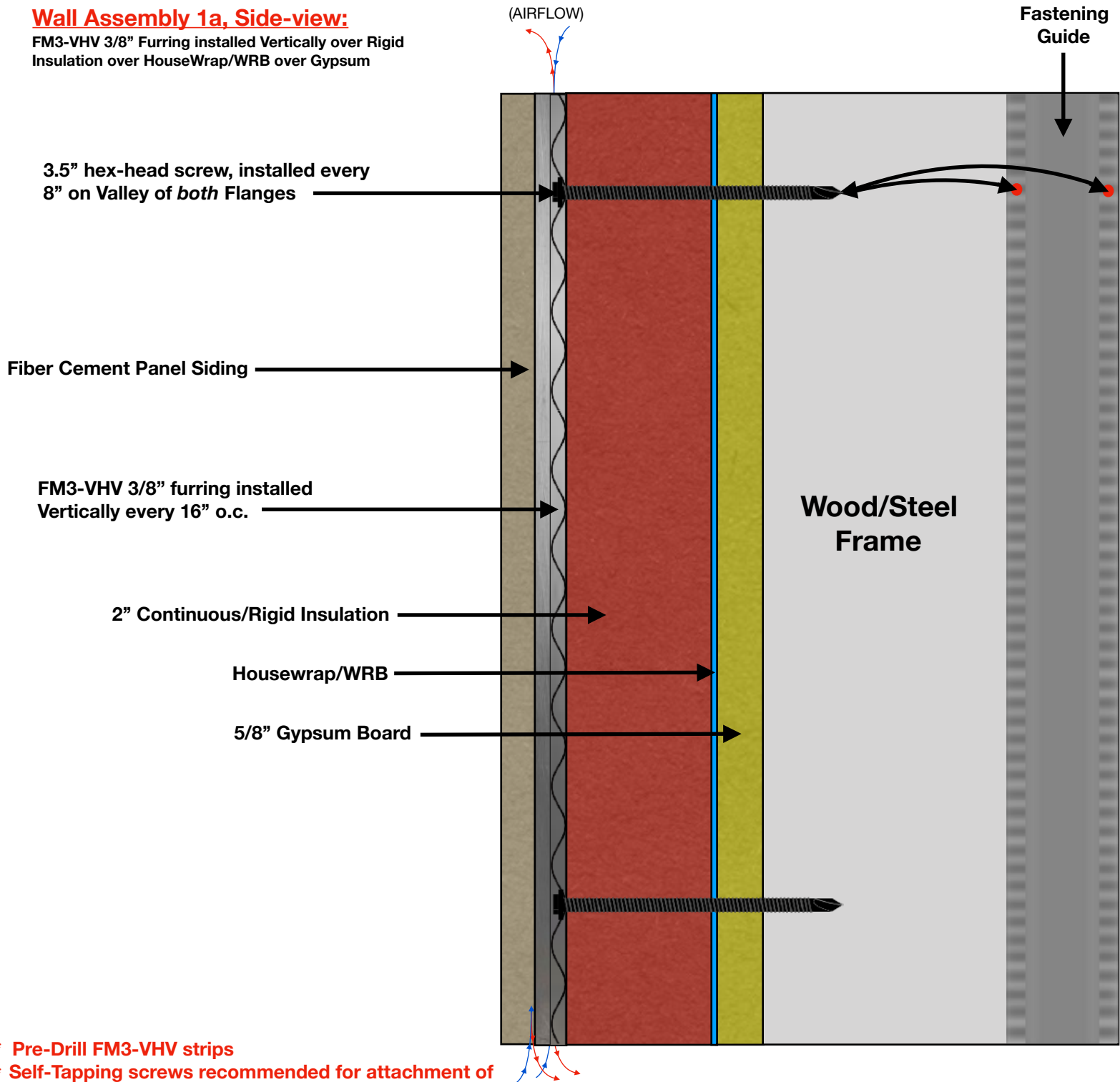Fiber Cement (to prevent blowout)**

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Wall Assembly 2a, Side-view:
FM3-VHV 3/8" Furring installed Vertically over Housewrap/
WRB over Weather Resistant OSB/ZipSystem

(AIRFLOW)

Fastening Guide

**2" hex-head screw, installed
every 8" on Valley of Flange**

Fiber Cement Panel Siding

**Wood/Steel
Frame**

**FM3-VHV 3/8" furring installed
Vertically every 16" o.c.**

Housewrap/WRB

Weather Resistant OSB/ZipSystem

*** Pre-Drill FM3-VHV strips
* Self-Tapping screws recommended for attachment of
Fiber Cement (to prevent blowout)**

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FM3
Patent Pending

Wall Assembly 2a, Top-view:
FM3-VHV 3/8" Furring installed Vertically over Housewrap/
WRB over Weather Resistant OSB/ZipSystem

2" hex-head screw, installed
every 8" on Valley of Flange

1" Flathead screw, installed
every 8" on Center of Hat
(head creates 1/8" air cavity between furring and cladding)

Fiber Cement Panel Siding

AIRFLOW

Weather Resistant OSB/ZipSystem

Housewrap/WRB

FM3-VHV 3/8" furring installed
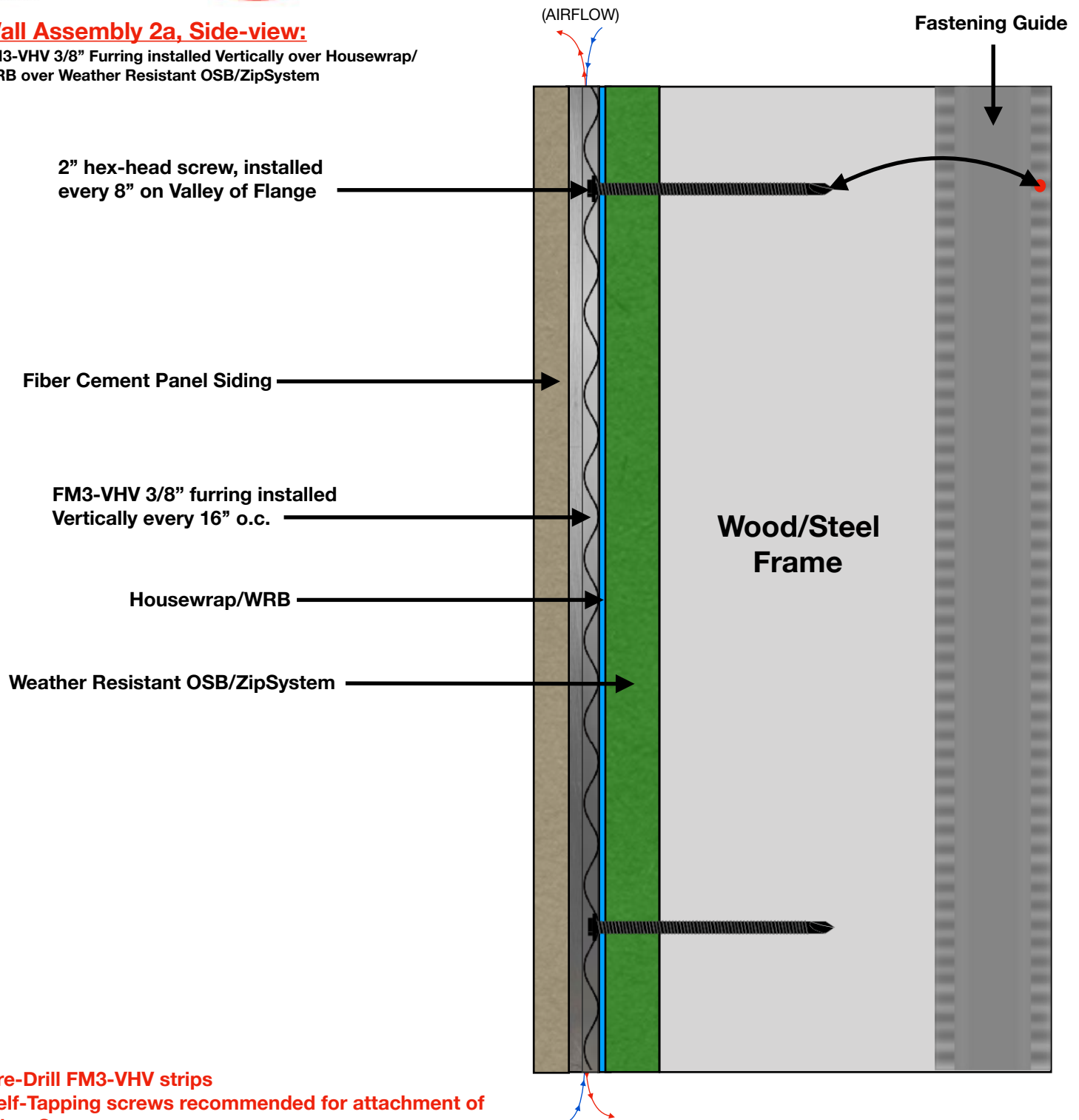**Vertically every 16" o.c.**

* Pre-Drill FM3-VHV strips
* Self-Tapping screws recommended for attachment of
 Fiber Cement (to prevent blowout)

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Wall Assembly 3b: Side-view:
FM3-VHV 3/8" Furring installed Vertically over Rigid Insulation
over Housewrap/WRB over Concrete Masonry Unit

(AIRFLOW)

Fastening Guide

3" TapCon screw, installed every
16" on Valley of *both* Flanges

Fiber Cement Panel Siding

FM3-VHV 3/8" furring installed
Vertically every 16" o.c.

1.5" Rigid Insulation

Housewrap/WRB

CMU

*Pre-Drill FM3-VHV strips
*Pre-Drill CMU for TapCon screw
* Self-Tapping screws recommended for attachment of
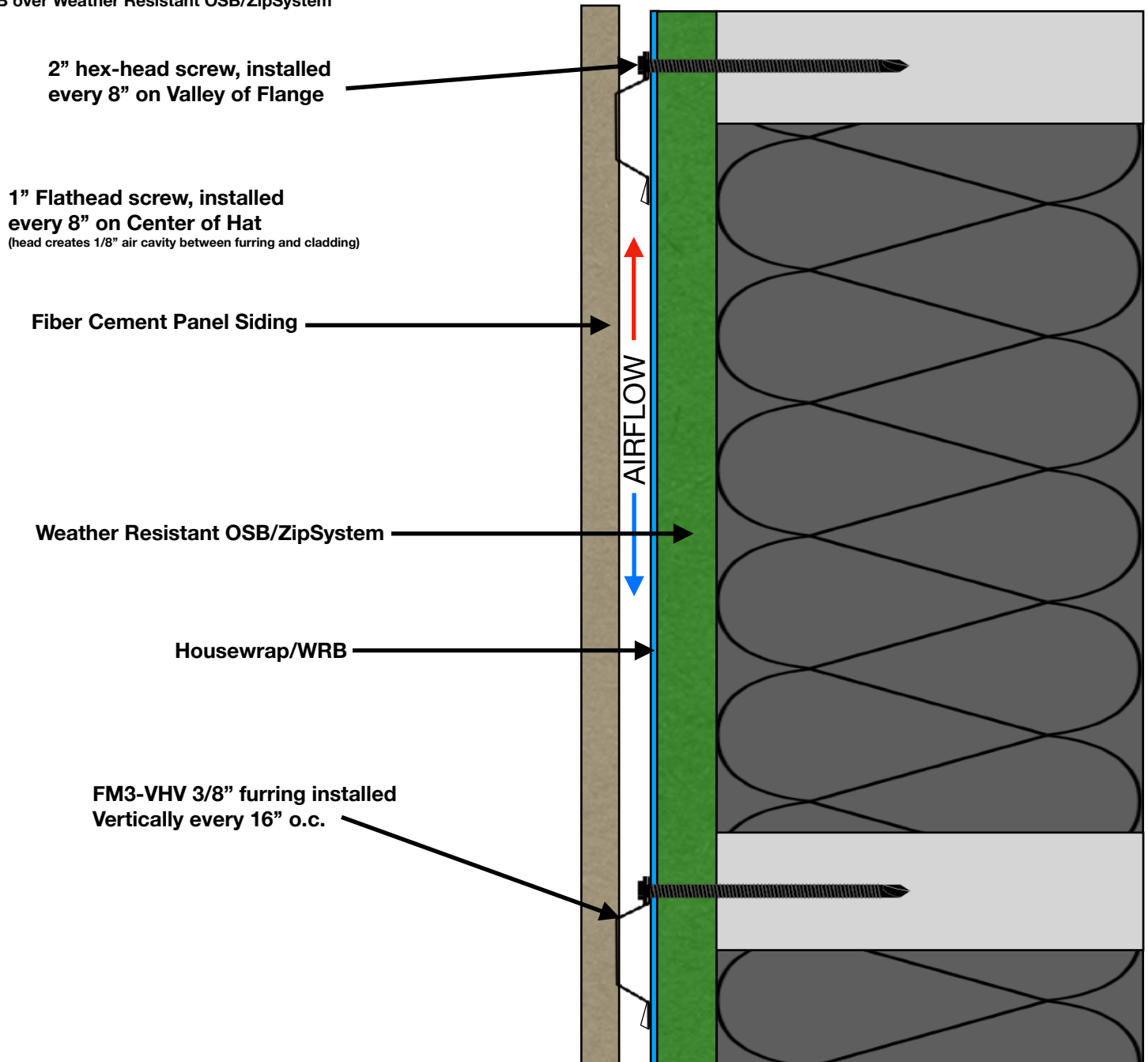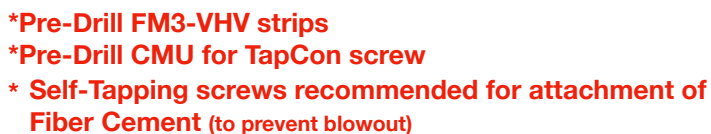**Fiber Cement (to prevent blowout)**

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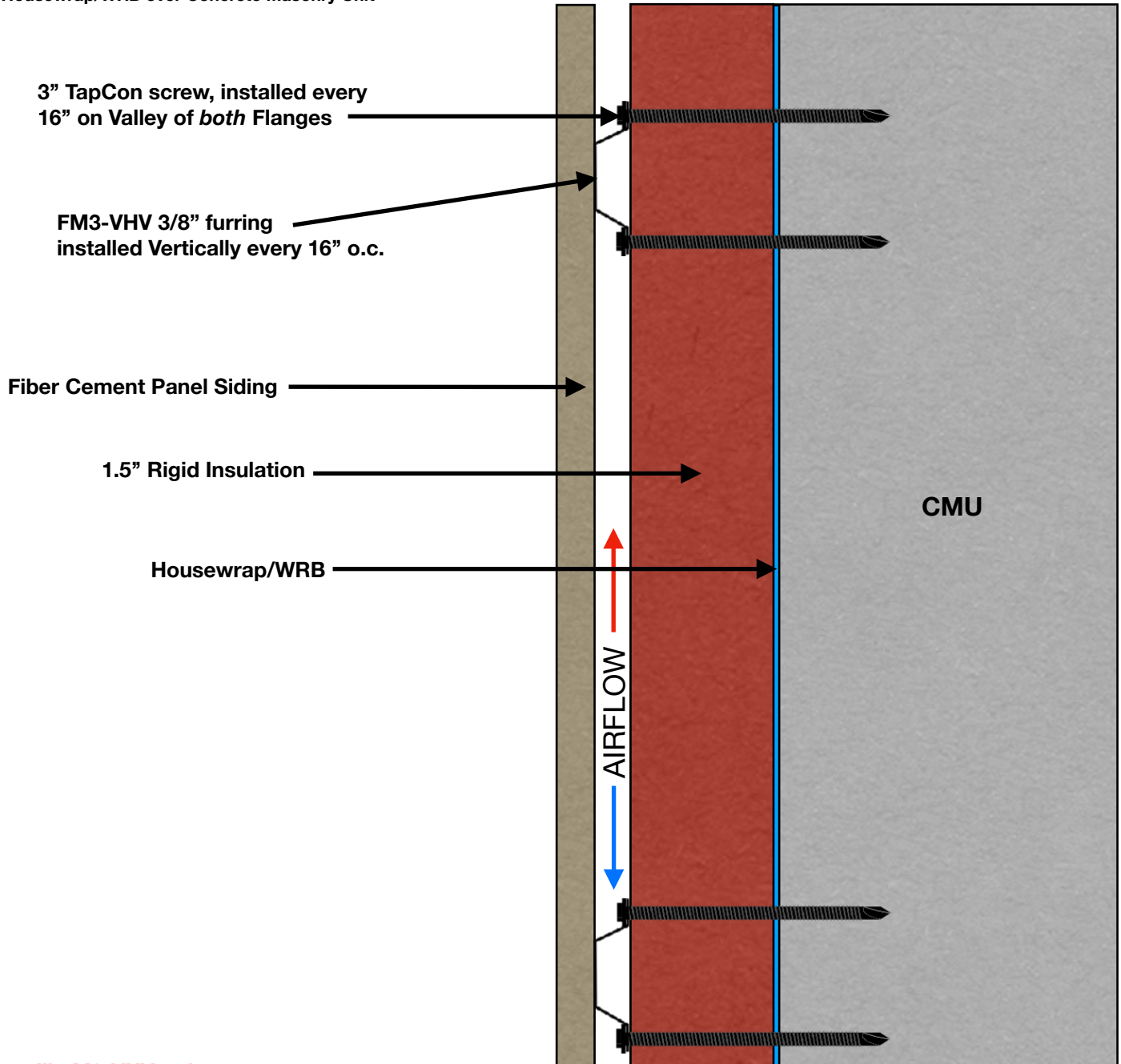
FM3
Patent Pending

Wall Assembly 3b: Top-view:
**FM3-VHV 3/8" Furring installed Vertically over Rigid Insulation
over Housewrap/WRB over Concrete Masonry Unit**

**3" TapCon screw, installed every
16" on Valley of *both* Flanges**

**FM3-VHV 3/8" furring
installed Vertically every 16" o.c.**

Fiber Cement Panel Siding

1.5" Rigid Insulation

CMU

Housewrap/WRB

AIRFLOW

*Pre-Drill FM3-VHV strips
*Pre-Drill CMU for TapCon screw
*** Self-Tapping screws recommended for attachment of
  Fiber Cement (to prevent blowout)**

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(AIRFLOW)

Fastening Guide

Wall Assembly 4a, Side-view:
FM3-VHV 3/8" Furring installed Vertically over Gypsum
over HouseWrap/WRB over OSB

**2.5" hex-head screw, installed
every 8" on Valley of Flange**

Fiber Cement Panel Siding

**Wood/Steel
Frame**

**FM3-VHV 3/8" furring installed
Vertically, every 16" o.c.**

5/8" Gypsum Board

House Wrap/WRB

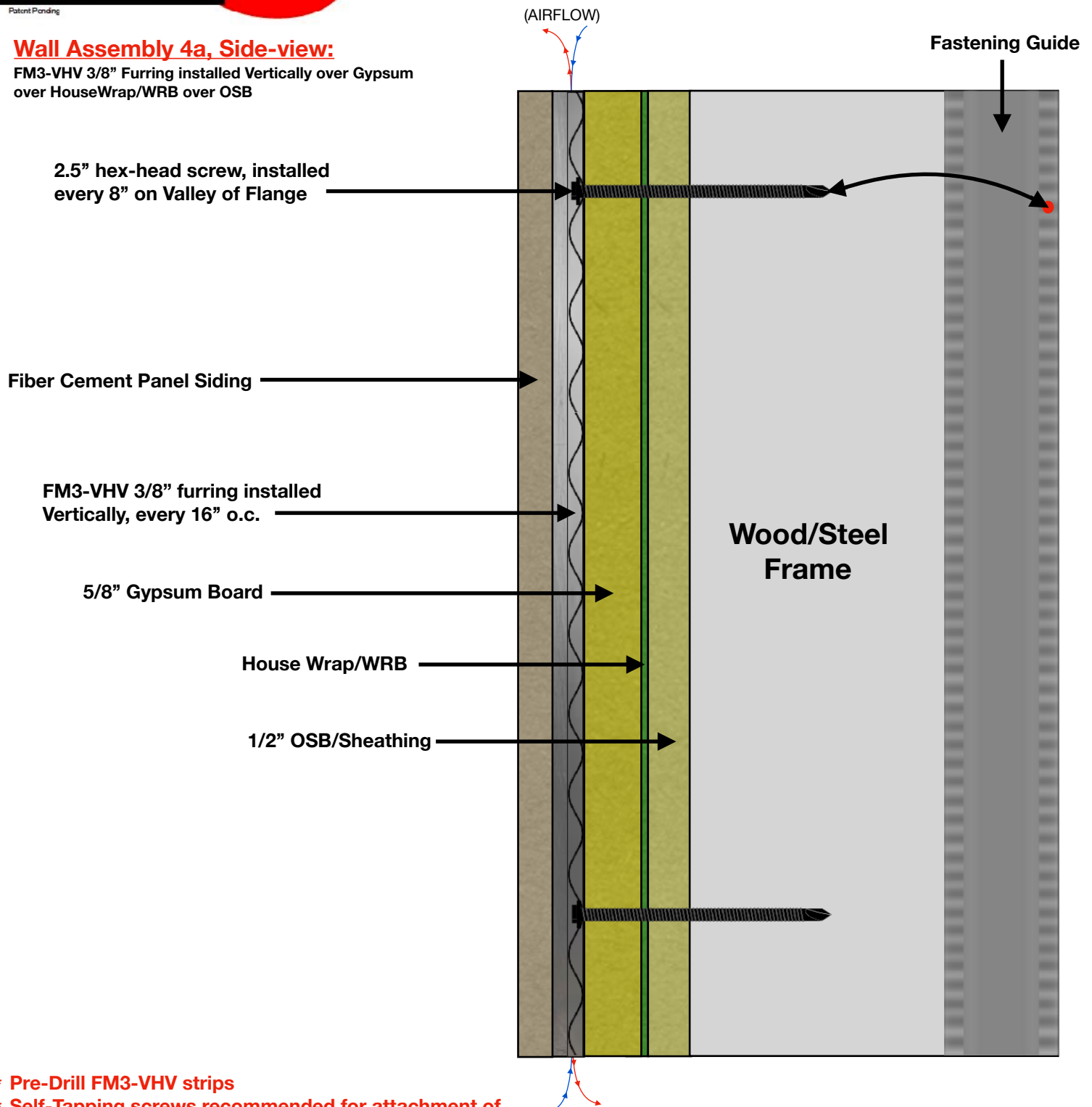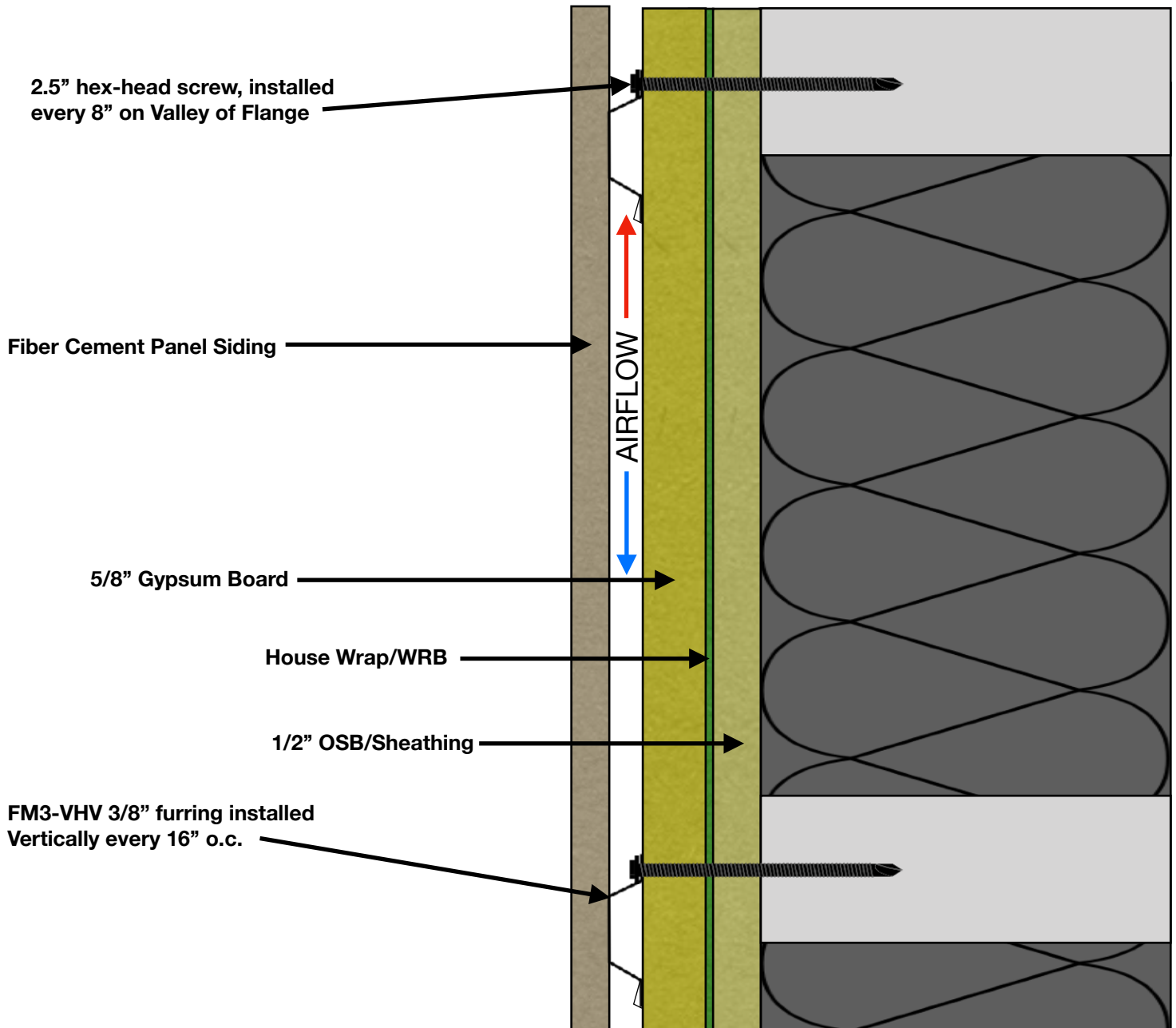**1/2" OSB/Sheathing**

* **Pre-Drill FM3-VHV strips**
* **Self-Tapping screws recommended for attachment of
  Fiber Cement** (to prevent blowout)

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Wall Assembly 4a, Top-view:
FM3-VHV 3/8" Furring installed Vertically over Gypsum
over HouseWrap/WRB over OSB

2.5" hex-head screw, installed
every 8" on Valley of Flange

AIRFLOW

Fiber Cement Panel Siding

5/8" Gypsum Board

House Wrap/WRB

1/2" OSB/Sheathing

FM3-VHV 3/8" furring installed
Vertically every 16" o.c.

* Pre-Drill FM3-VHV strips
* Self-Tapping screws recommended for attachment of
  Fiber Cement (to prevent blowout)

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FM3

Patent Pending

FM3-VHV installed Horizontally above & below openings / at top & bottom of walls

FM3-VHV installed Horizontally, 16" o.c.
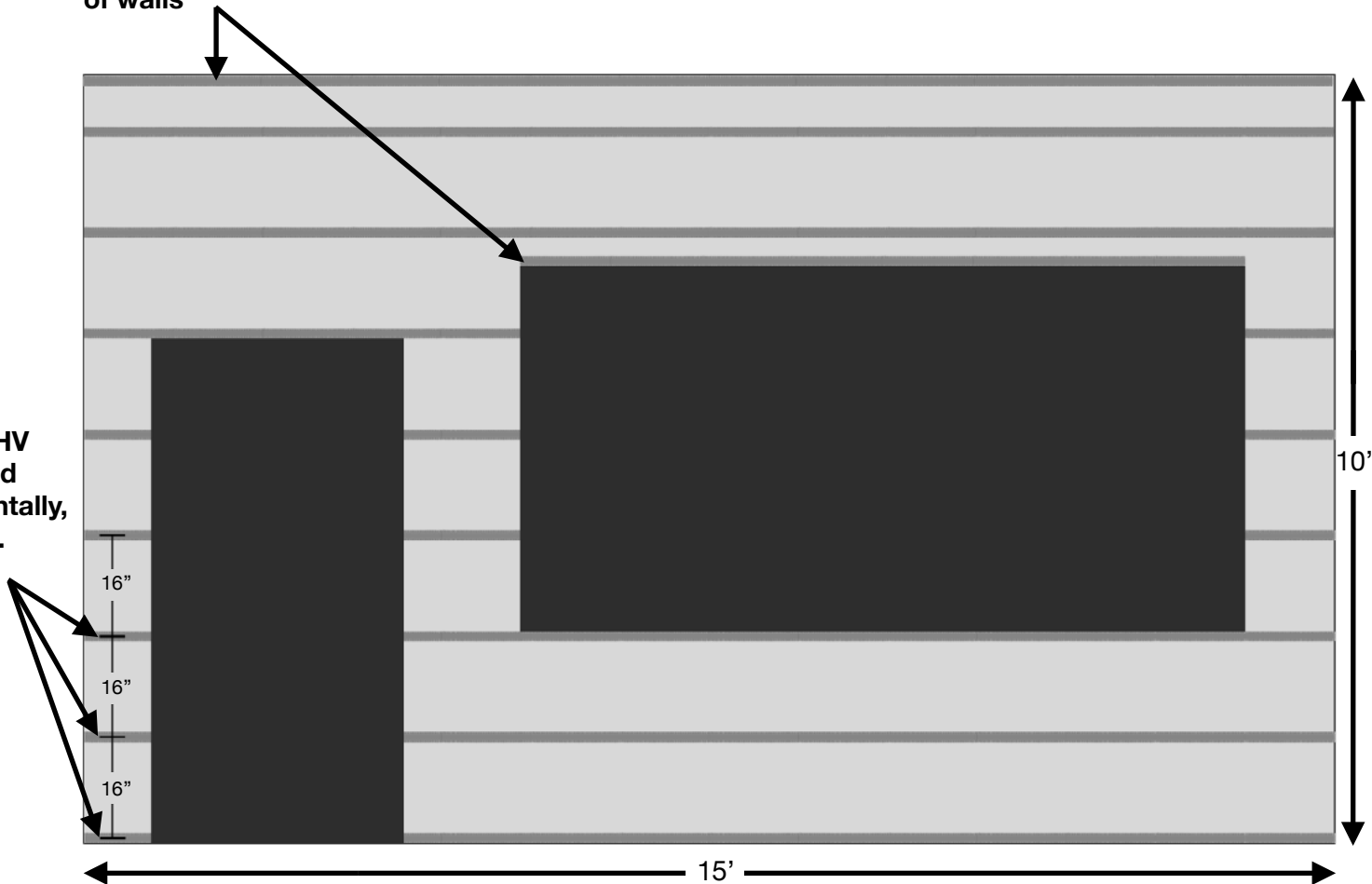
16"

16"

16"

10'

15'

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Wall Assembly 1b, Side-view:
FM3-VHV 3/8" Furring installed Horizontally over
2"+ Rigid Insulation over HouseWrap/WRB over
⅝" Gypsum

**3"+ self-drilling hex-head screw
installed every 16" on Valley
of *both* Flanges**

**4" self-drilling pancake-head
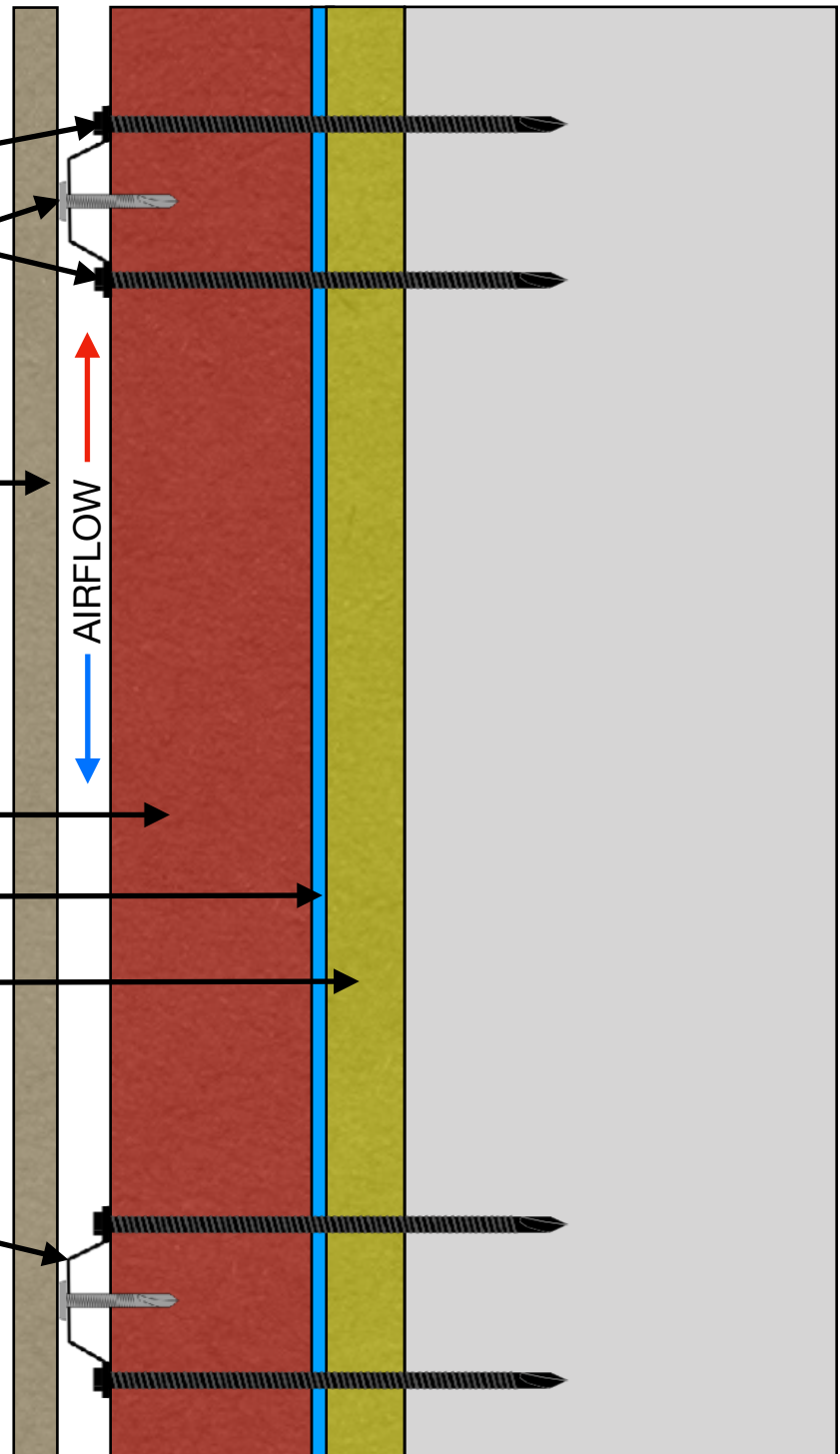screw installed every 16" on Face
of Hat**

Fiber Cement Panel Siding

AIRFLOW

2" Continuous/Rigid Insulation

Housewrap/WRB

⅝" Gypsum Board

**FM3-VHV 3/8" furring installed
Horizontally every 16/24" o.c.**

* Pre-Drill FM3-VHV strips
*** Self-Tapping screws recommended for attachment of
Fiber Cement (to prevent blowout)**

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FM3
Patent Pending

Fastening Guide

Wall Assembly 1b, Top-view:
FM3-VHV ⅜" Furring installed Horizontally over
2"+ Rigid Insulation over HouseWrap/WRB over
⅝" Gypsum

(AIRFLOW)

1" self-drilling pancake-head screw every 16" on Face of Hat

3"+ self-drilling hex-head screw installed every 16" on Valley of *both* Flanges

Fiber Cement Panel Siding

FM3-VHV 3/8" furring installed Horizontally every 16/24" o.c.

2" Continuous/Rigid Insulation
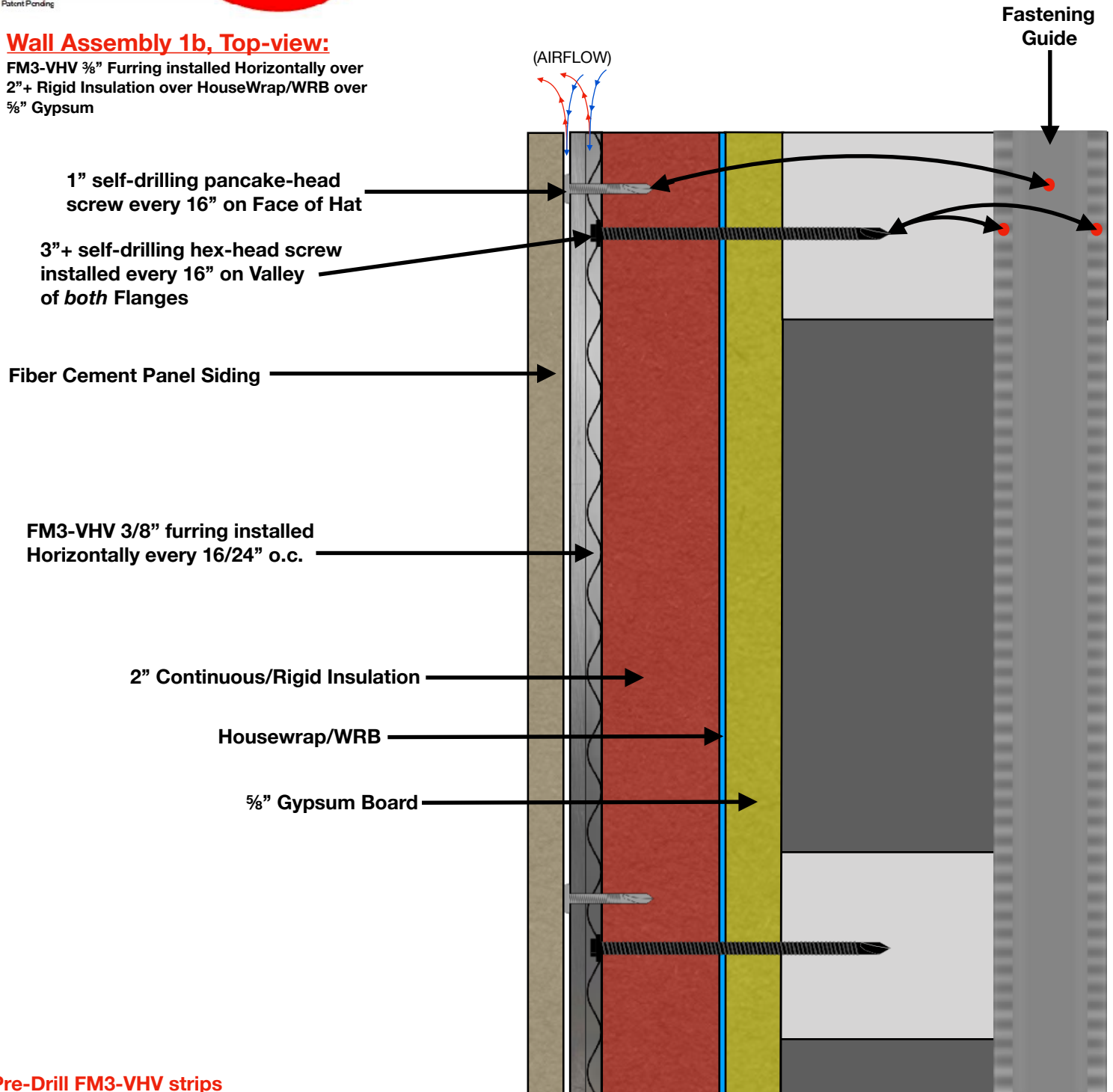
Housewrap/WRB

⅝" Gypsum Board

* **Pre-Drill FM3-VHV strips**
* **Self-Tapping screws recommended for attachment of**
  Fiber Cement (to prevent blowout)

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Wall Assembly 2b, Side-view:

FM3-VHV 3/8" Furring installed Horizontally over
Housewrap/WRB over Weather Resistant OSB/ZipSystem

**2" hex-head screw, installed every
16" on Valley of** *both* **Flanges**

**1" Flathead screw, installed
every 8" on Center of Hat**
(head creates 1/8" air cavity between furring and cladding)

Fiber Cement Panel Siding

Housewrap/WRB

**Wood/Steel
Frame**

AIRFLOW

Weather Resistant OSB/ZipSystem

**FM3-VHV 3/8" furring installed
Horizontally every 16" o.c.**
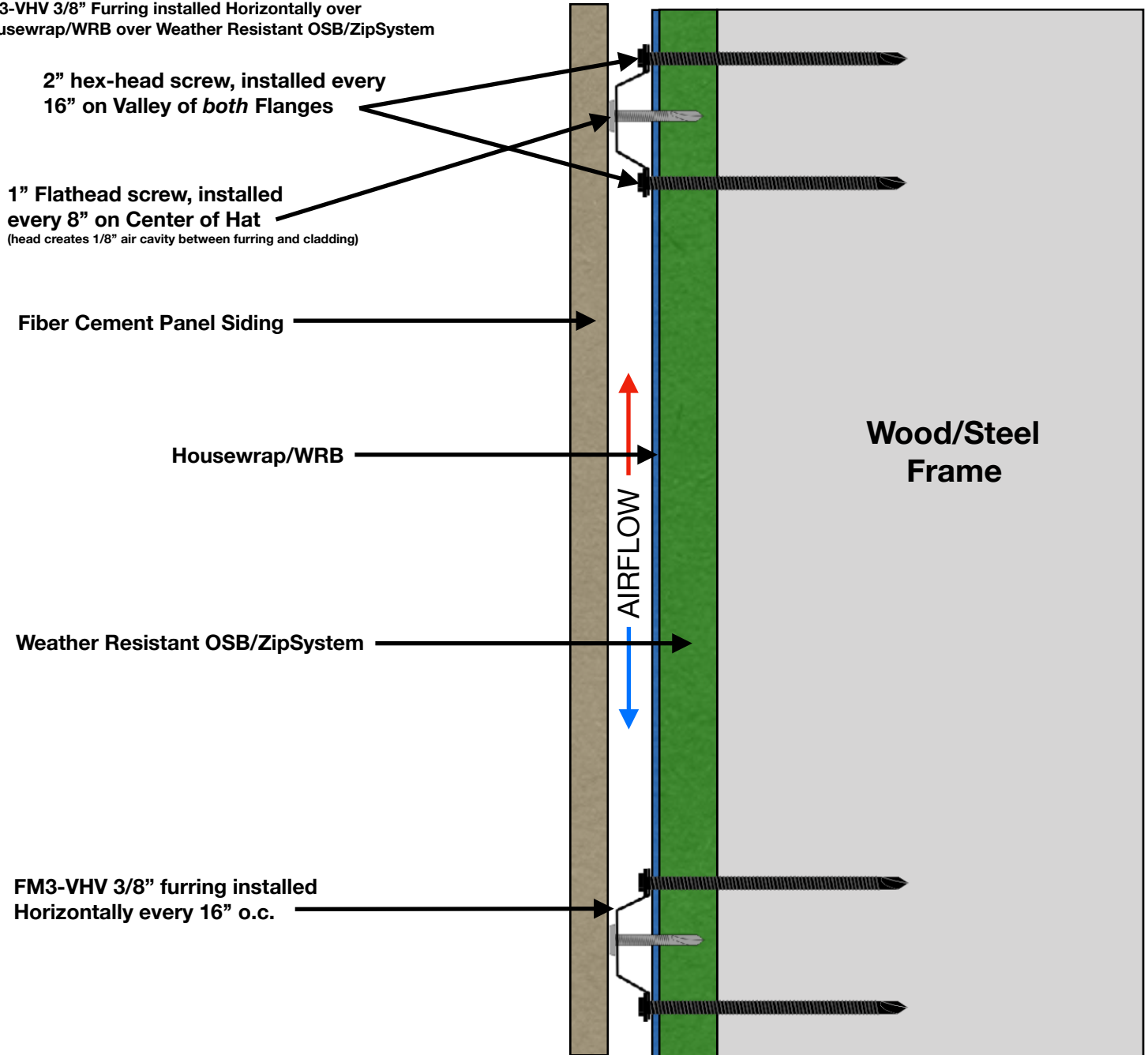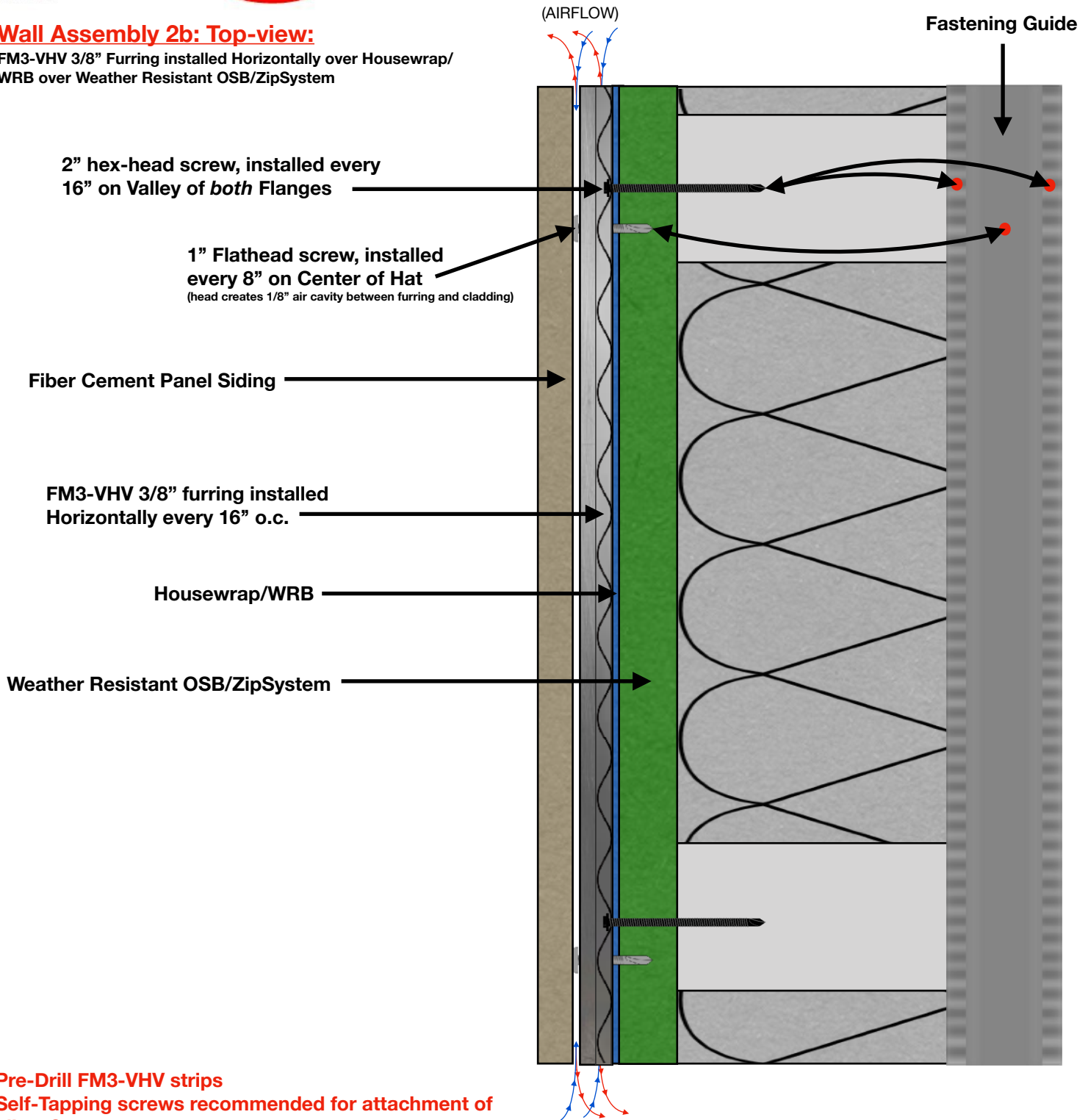
* **Pre-Drill FM3-VHV strips**
* **Self-Tapping screws recommended for attachment of
  Fiber Cement** (to prevent blowout)

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FM3

Patent Pending

Wall Assembly 2b: Top-view:
FM3-VHV 3/8" Furring installed Horizontally over Housewrap/
WRB over Weather Resistant OSB/ZipSystem

(AIRFLOW)

Fastening Guide

**2" hex-head screw, installed every
16" on Valley of *both* Flanges**

**1" Flathead screw, installed
every 8" on Center of Hat**
(head creates 1/8" air cavity between furring and cladding)

Fiber Cement Panel Siding

**FM3-VHV 3/8" furring installed
Horizontally every 16" o.c.**

Housewrap/WRB

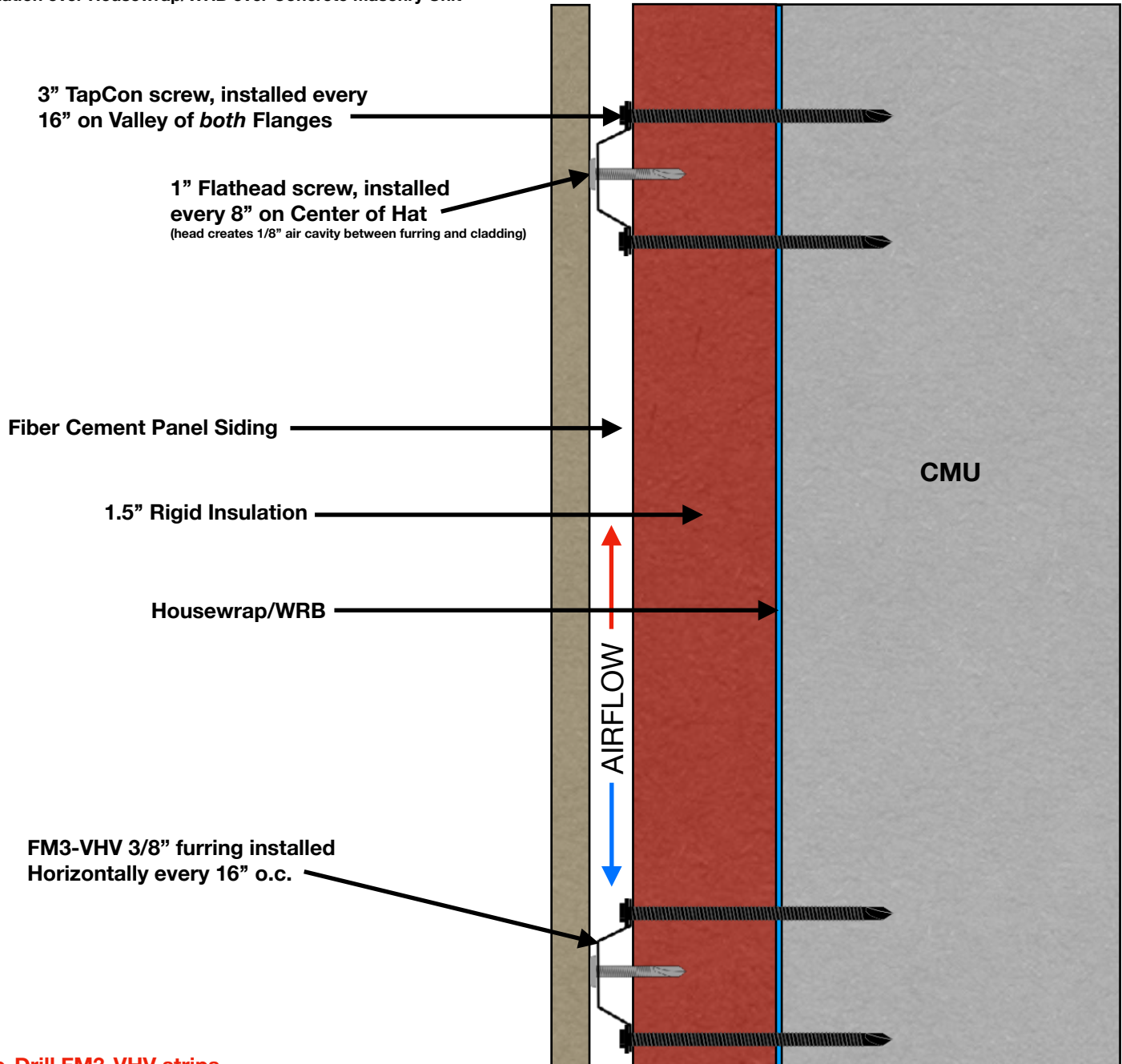**Weather Resistant OSB/ZipSystem**

* Pre-Drill FM3-VHV strips
*** Self-Tapping screws recommended for attachment of
   Fiber Cement (to prevent blowout)**

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Wall Assembly 3a, Side-view:

**FM3-VHV 3/8" Furring installed Horizontally over Rigid
Insulation over Housewrap/WRB over Concrete Masonry Unit**

**3" TapCon screw, installed every
16" on Valley of *both* Flanges**

**1" Flathead screw, installed
every 8" on Center of Hat**
(head creates 1/8" air cavity between furring and cladding)

Fiber Cement Panel Siding

1.5" Rigid Insulation

CMU

Housewrap/WRB

AIRFLOW

**FM3-VHV 3/8" furring installed
Horizontally every 16" o.c.**

* Pre-Drill FM3-VHV strips
* Pre-Drill CMU for TapCon screw
*** Self-Tapping screws recommended for attachment of
   Fiber Cement** (to prevent blowout)

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Wall Assembly 3a, Top-view:
FM3-VHV 3/8" Furring installed Horizontally over Rigid
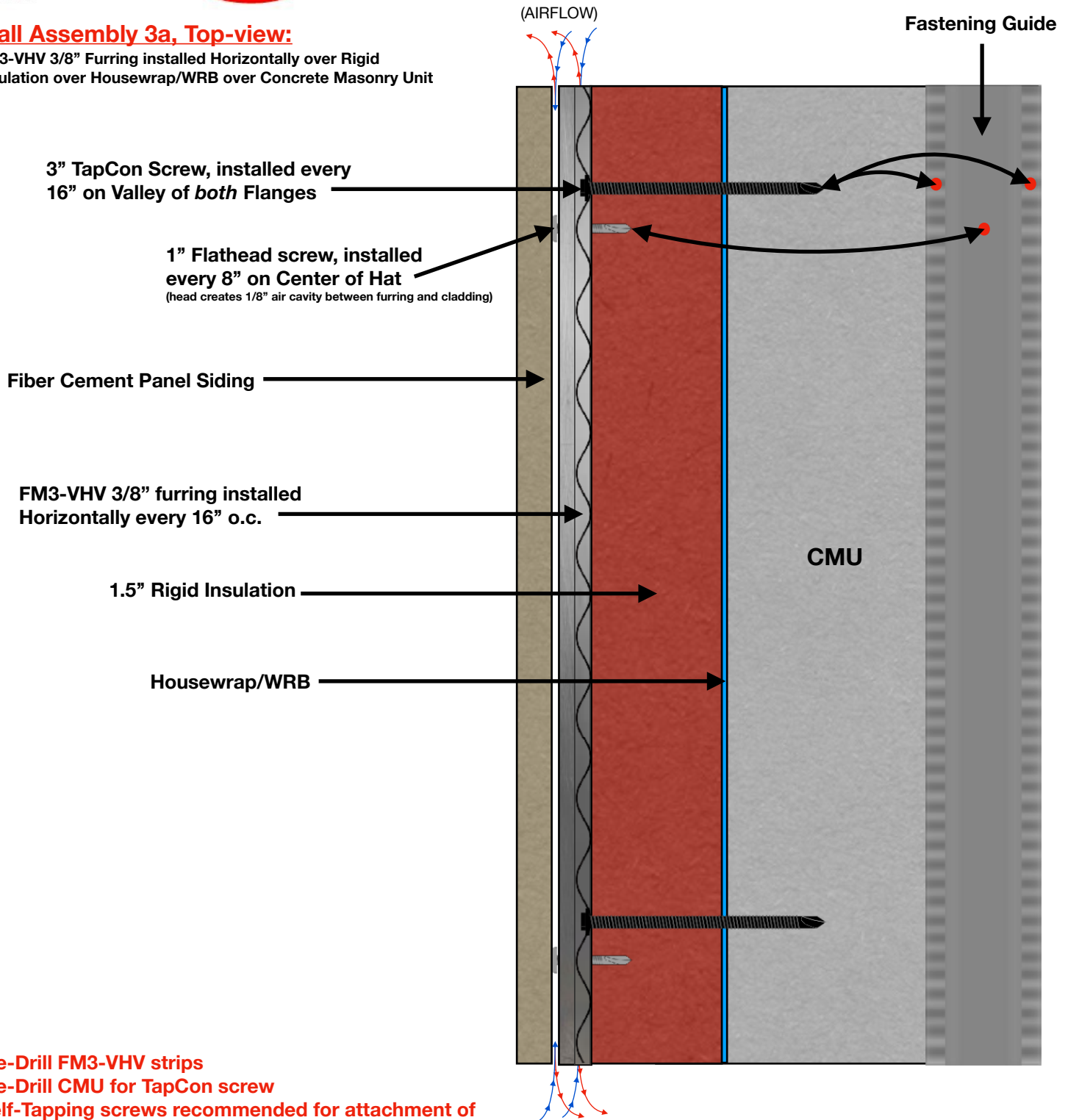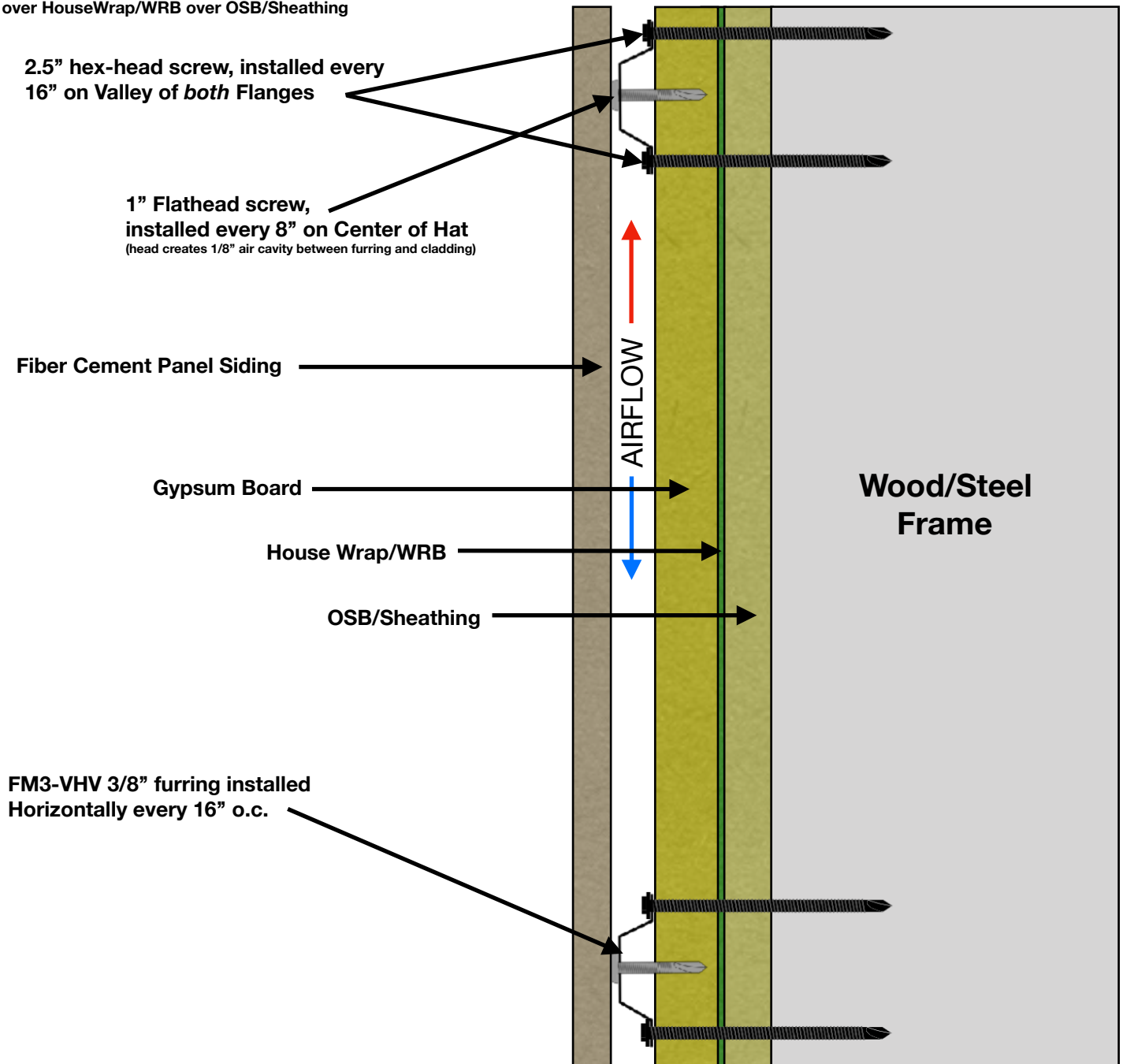Insulation over Housewrap/WRB over Concrete Masonry Unit

(AIRFLOW)

Fastening Guide

**3" TapCon Screw, installed every
16" on Valley of *both* Flanges**

**1" Flathead screw, installed
every 8" on Center of Hat**
(head creates 1/8" air cavity between furring and cladding)

Fiber Cement Panel Siding

**FM3-VHV 3/8" furring installed
Horizontally every 16" o.c.**

CMU

1.5" Rigid Insulation

Housewrap/WRB

* Pre-Drill FM3-VHV strips
* Pre-Drill CMU for TapCon screw
*** Self-Tapping screws recommended for attachment of
  Fiber Cement (to prevent blowout)**

These illustrations are to be used as general guides only and do not account for the full details of any specific project. They are to be considered alongside any/all technical input from project owners, managers, engineers, architects, building code officials, contractors and installers. GGGS LLC accepts no liability in respects to the use of these drawings. Visit www.RollOnRainscreen.com for specific installation instructions.

FM3
Patent Pending

Wall Assembly 4b, Side-view:
FM3 3/8" Furring installed Horizontally over Gypsum Board over HouseWrap/WRB over OSB/Sheathing

2.5" hex-head screw, installed every 16" on Valley of *both* Flanges

1" Flathead screw, installed every 8" on Center of Hat
(head creates 1/8" air cavity between furring and cladding)

Fiber Cement Panel Siding

AIRFLOW

Gypsum Board

House Wrap/WRB

OSB/Sheathing

Wood/Steel Frame

FM3-VHV 3/8" furring installed Horizontally every 16" o.c.

* Pre-Drill FM3-VHV strips
* Self-Tapping screws recommended for attachment of Fiber Cement (to prevent blowout)

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Fastening Guide

(AIRFLOW)

Wall Assembly 4b, Top-view:
FM3 3/8" Furring installed Horizontally over Gypsum Board over HouseWrap/WRB over OSB/Sheathing

2.5" hex-head screw, installed every 16" on Valley of *both* Flanges

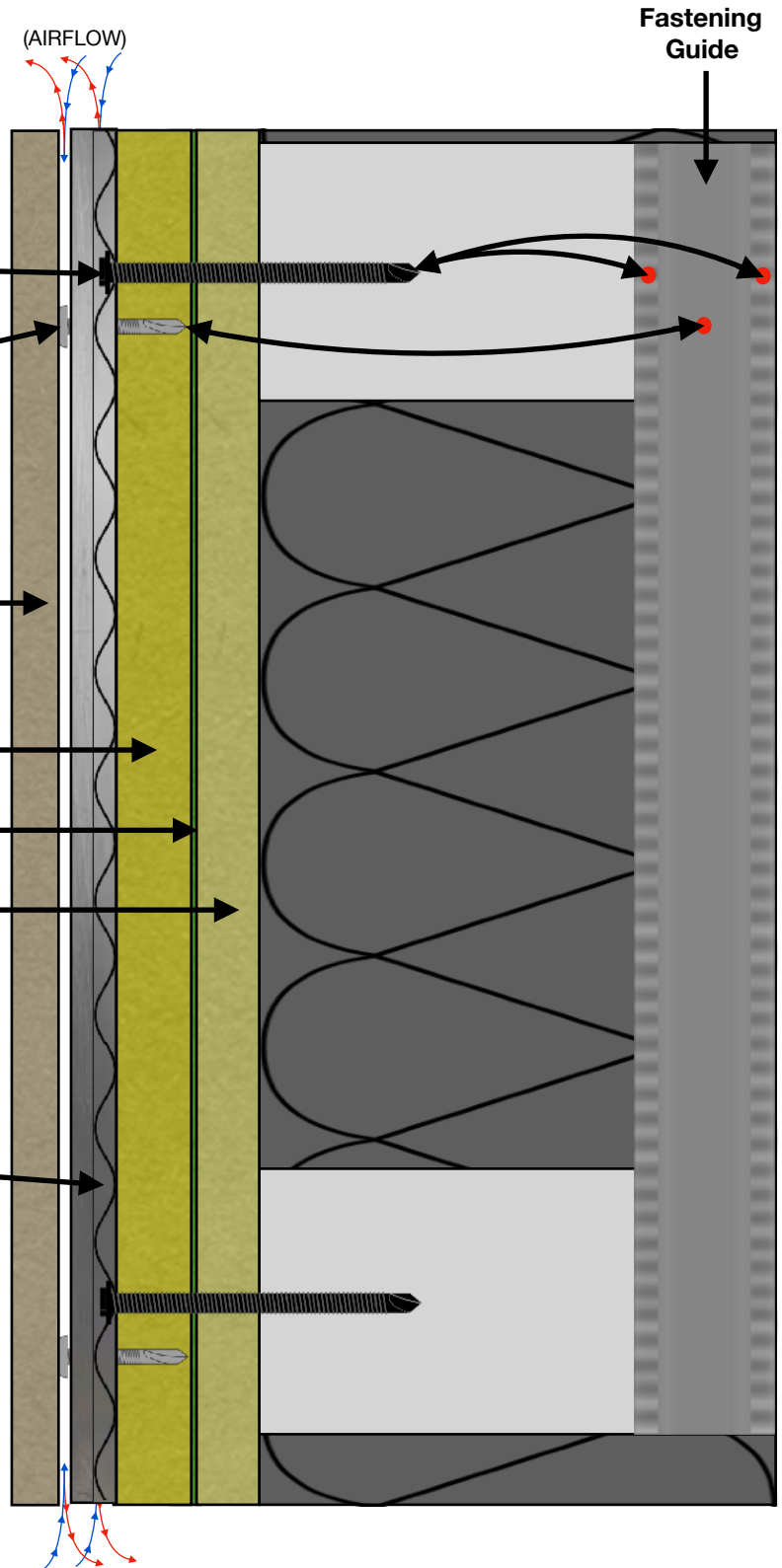**1" Flathead screw, installed every 8" on Center of Hat** (head creates 1/8" air cavity between furring and cladding)

Fiber Cement Panel Siding

Gypsum Board

House Wrap/WRB

OSB/Sheathing

FM3-VHV 3/8" furring installed Horizontally every 16" o.c.

* Pre-Drill FM3-VHV strips
* Self-Tapping screws recommended for attachment of Fiber Cement (to prevent blowout)

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