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TOTAL UNITS:

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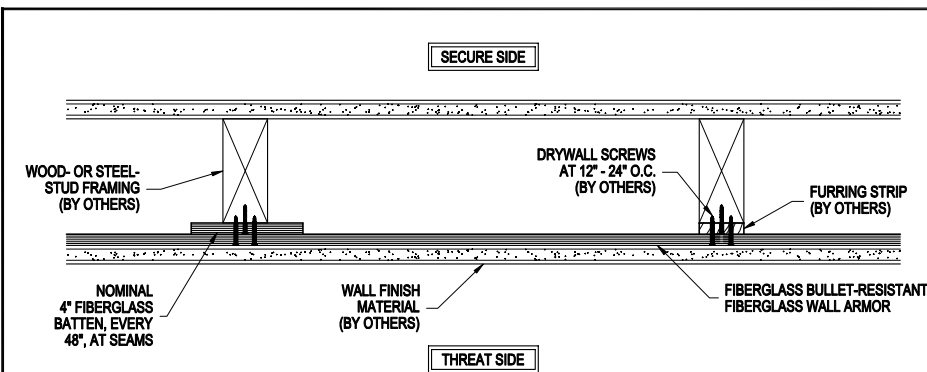
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Product	Test Criteria / Performance Level	Ballistic Data	Nominal Thickness	Lbs./ Sq. Ft.
BB-A	N.I.J. 0108.01 / Level I	.38 Spl., 158 Gr., 850 Ft. Sec., Lead	1/8"	1.2
BB-1	U.L. 752 / LEVEL 1, (U.L. LISTED)	9MM, 124 Gr., 1175 Ft. Sec., FMJ	1/4"	2.4
	N.I.J. 0108.01 / Level IIA	9MM, 124 Gr., 1090 Ft. Sec., FMJ		
BB-2/6	U.L. 752 / LEVEL 2, (U.L. LISTED)	.357 Mag., 158 Gr., 1250 Ft. Sec., LSP	5/16"	3.0
	U.L. 752 / LEVEL 6, (U.L. LISTED)	9MM, 124 Gr., 1400 Ft. Sec., FMJ		
	N.I.J. 0108.01 / Level II	.357 Mag., 158 Gr., 1395 Ft. Sec., JSP		
BB-3	U.L. 752 / LEVEL 3, (U.L. LISTED)	.44 Mag., 240 Gr., 1350 Ft. Sec., SWC	7/16"	4.0
	N.I.J. 0108.01 / Level IIIA	.44 Mag., 240 Gr. 1400 Ft. Sec., SWC		
BB-4/5	U.L. 752 / LEVEL 4, (U.L. LISTED)	.30 Cal., 180 Gr., 2540 Ft. Sec., JSP	1-1/4"	12.5
	U.L. 752 / LEVEL 5, (U.L. LISTED)	7.62MM, 150 Gr., 2750 Ft. Sec. FMJ		
	N.I.J. 0108.01 / Level III	7.62MM, 150 Gr., 2750 Ft. Sec., FMJ		
BB-7	U.L. 752 / LEVEL 7, (U.L. LISTED)	5.56MM, 55 Gr., 3080 Ft. Sec., FMJ	1-3/16"	12.0
BB-8	U.L. 752 / LEVEL 8, (U.L. LISTED)	7.62MM, 150 Gr., 2750 Ft. Sec., FMJ, (5 SHOT)	1-3/8"	13.6

## FIBERGLASS BALLISTIC CHART



**B** HORIZONTAL WALL SECTION  
SCALE: 3" = 1'-0"

#### GENERAL

FIBERGLASS IS A MULTIPLE-PLY BALLISTIC FIBERGLASS LAMINATE PRODUCED FROM BALLISTIC FIBERGLASS AND IMPREGNATED WITH A THERMOSET POLYESTER-RESIN BINDER. THE MULTIPLE-PLY CONFIGURATION PROVIDES A DELAMINATION EFFECT WHEN BALLISTICALLY ATTACKED. BULLETS ARE THEREFORE IMBEDDED WITHIN ITS PLIES RATHER THAN BEING RICOCHETED AS WITH STEEL OR ALUMINUM ARMOR.

FIBERGLASS IS A FRACTION OF THE WEIGHT OF STEEL ARMOR FOR IDENTICAL PERFORMANCE LEVELS. IT CAN BE CUT, DRILLED, AND WORKED USING CONVENTIONAL CARPENTRY TOOLS. NO REINFORCING OF TRADITIONAL STUD WALL CONSTRUCTION IS NEEDED. ATTACHMENT TO NEW WALLS IS EASY, AS IS BONDED APPLICATION TO EXISTING WALLS OR UNDER COUNTER RETROFITS.

FIBERGLASS IS COMPATIBLE WITH CONTACT OR CONSTRUCTION ADHESIVES. THIS MAKES FIBERGLASS IDEAL TO INCORPORATE WITHIN WOOD DOOR AND MILLWORK PANELS.

#### CUTTING AND DRILLING

FIBERGLASS CAN BE CUT OR DRILLED USING A CONVENTIONAL CIRCULAR SAW, SABRE SAW, AND/OR DRILL MOTOR.

**CUTTING IS TO BE DONE USING AN ABRASIVE CARBIDE-GRIT EDGE BLADE. A DIAMOND BLADE INTENDED FOR FIBERGLASS IS ALSO ACCEPTABLE. FIBERGLASS CAN BE CUT DRY. HOWEVER, DRY CUTTING DEVELOPS SIGNIFICANT DUST. USING A CIRCULAR SAW CONNECTED TO A GFCI EXTENTION CORD IS RECOMMENDED. THE SAW OPERATOR CUTS WHILE AN ASSISTANT SPRAYS WATER ON THE SAW BLADE WITH SPRAY BOTTLE TO DEVELOP A STREAM OF WATER. THIS TECHNIQUE MINIMIZES THE DUST AND DEVELOPS A NON-HAZARDOUS SLURRY.**

DRILLING CAN BE ACCOMPLISHED USING A HIGH-SPEED TWIST DRILL BIT. BITS ARE AVAILABLE UPON REQUEST.

#### INSTALLATION

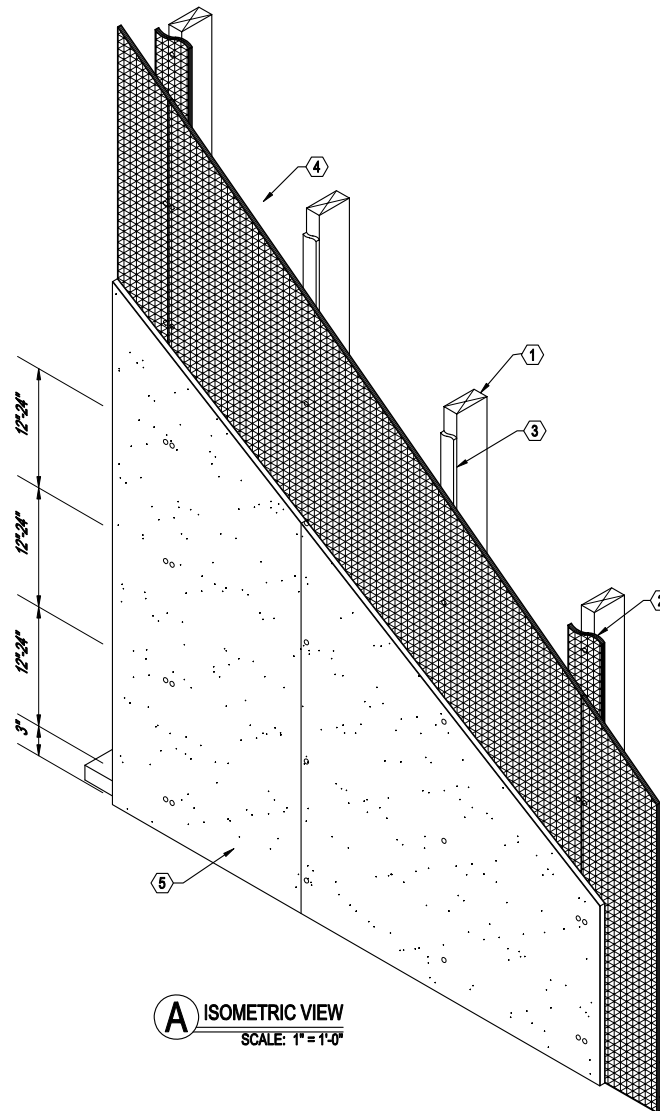
ALWAYS DRILL PILOT HOLES IN FIBERGLASS TO ACCOMMODATE HANGING THE MATERIAL ON STUD WALLS. NEVER SCREW DIRECTLY INTO THE FIBERGLASS AS THIS WILL CAUSE DELAMINATION AROUND THE SCREW AND VOID THE WARRANTY. THE USE OF DRYWALL SCREWS AT 12-24" O.C. IS DESIRABLE.

TO INSURE COMPLETE PROTECTION AT SEAMS, WE RECOMMEND INCORPORATING 4" (NOMINAL) BATTEN STRIPS OF FIBERGLASS. THESE BATTEN STRIPS ARE FIRST INSTALLED ON STUDS, THEN FULL-SIZE SHEETS OF FIBERGLASS ARE INSTALLED OVER THE BATTENS TO CREATE A SMOOTH FINISH. DRYWALL OR OTHER WALL FINISHES CAN THEN BE BONDED OVER THE FIBERGLASS WITH CONSTRUCTION ADHESIVE.

#### NOTES

- ① METAL- OR WOOD-STUD FRAMING @ 16" O.C. (BY OTHERS)
- ② FIBERGLASS BATTEN STRIPS, 4" NOMINAL WIDTH, LOCATED AT SEAMS
- ③ FURRING STRIPS (BY OTHERS)
- ④ FIBERGLASS BULLET-RESISTANT FIBERGLASS PANEL
- ⑤ DRYWALL OR OTHER WALL FINISH (BY OTHERS)

## BATTEN-ON-STUD METHOD



**A** ISOMETRIC VIEW  
SCALE: 1" = 1'-0"



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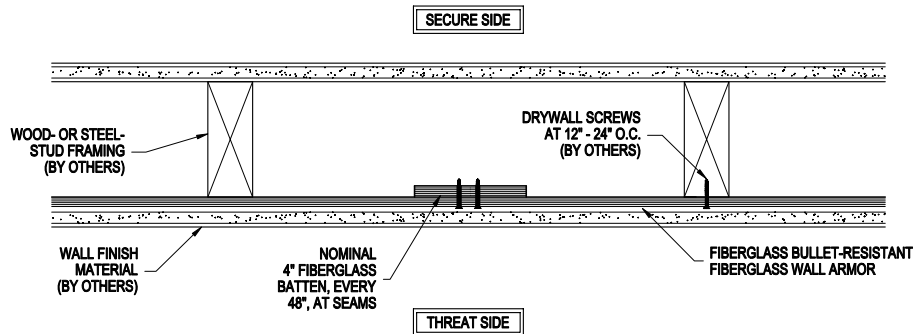
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**B HORIZONTAL WALL SECTION**  
SCALE: 3\"/>

#### GENERAL

FIBERGLASS IS A MULTIPLE-PLY BALLISTIC FIBERGLASS LAMINATE PRODUCED FROM BALLISTIC FIBERGLASS AND IMPREGNATED WITH A THERMOSET POLYESTER-RESIN BINDER. THE MULTIPLE-PLY CONFIGURATION PROVIDES A DELAMINATION EFFECT WHEN BALLISTICALLY ATTACKED. BULLETS ARE THEREFORE IMBEDDED WITHIN ITS PLYS RATHER THAN BEING RICOCHETED AS WITH STEEL OR ALUMINUM ARMOR.

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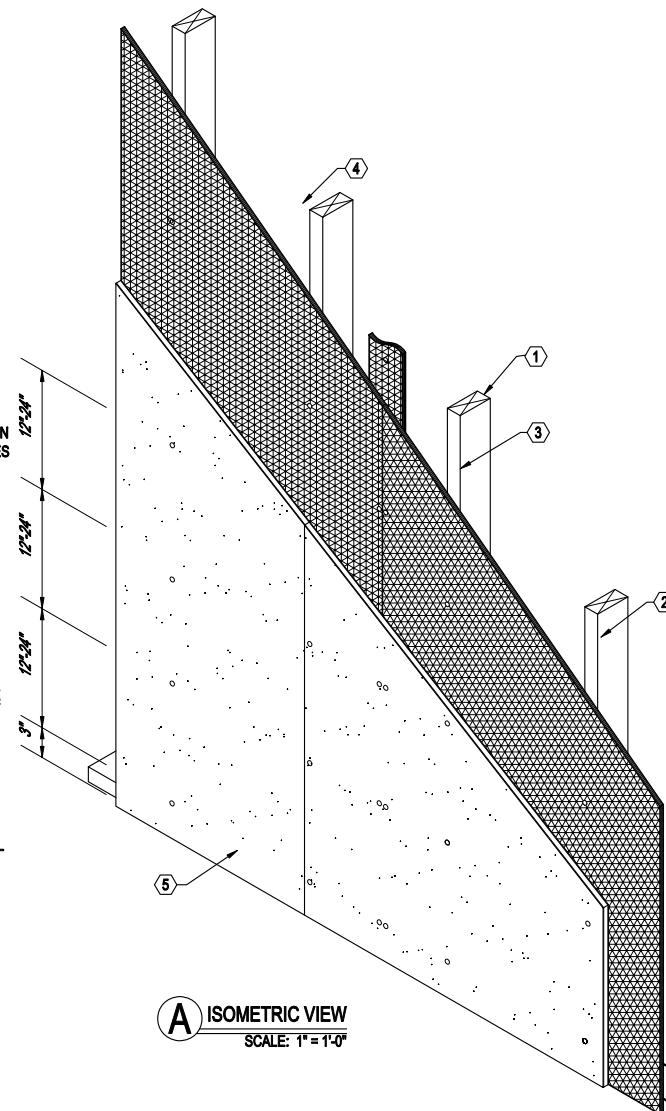
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ALWAYS DRILL PILOT HOLES IN FIBERGLASS TO ACCOMMODATE HANGING THE MATERIAL ON STUD WALLS. NEVER SCREW DIRECTLY INTO THE FIBERGLASS AS THIS WILL CAUSE DELAMINATION AROUND THE SCREW AND VOID THE WARRANTY. THE USE OF DRYWALL SCREWS AT 12-24\"/>

TO INSURE COMPLETE PROTECTION AT SEAMS, WE RECOMMEND INCORPORATING 4\"/>

#### NOTES

- ① METAL- OR WOOD-STUD FRAMING @ 16\"/>



**A ISOMETRIC VIEW**  
SCALE: 1\"/>



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## BATTEN-OFF-STUD METHOD

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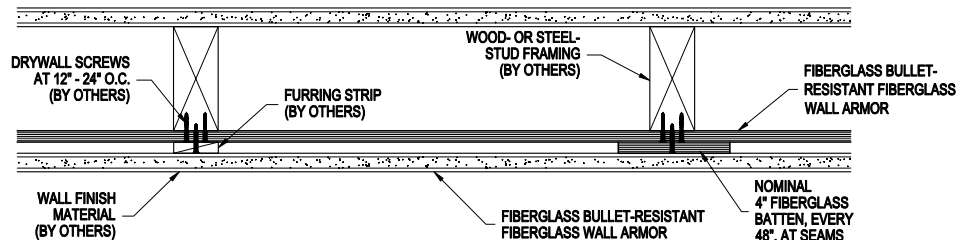
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SECURE SIDE



THREAT SIDE

**B HORIZONTAL WALL SECTION**  
 SCALE: 3" = 1'-0"

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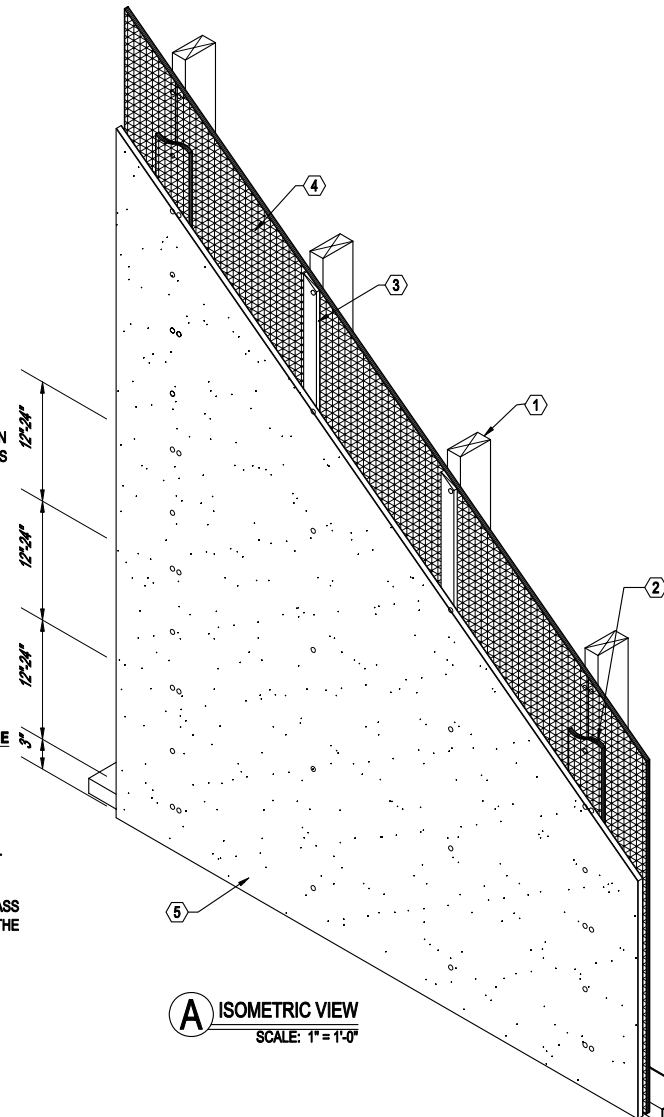
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#### NOTES

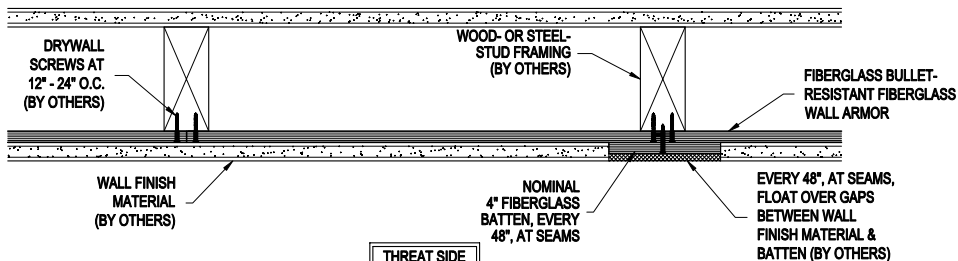
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**A ISOMETRIC VIEW**  
 SCALE: 1" = 1'-0"

## BATTEN-OVER- METHOD

SECURE SIDE



**B** HORIZONTAL WALL SECTION  
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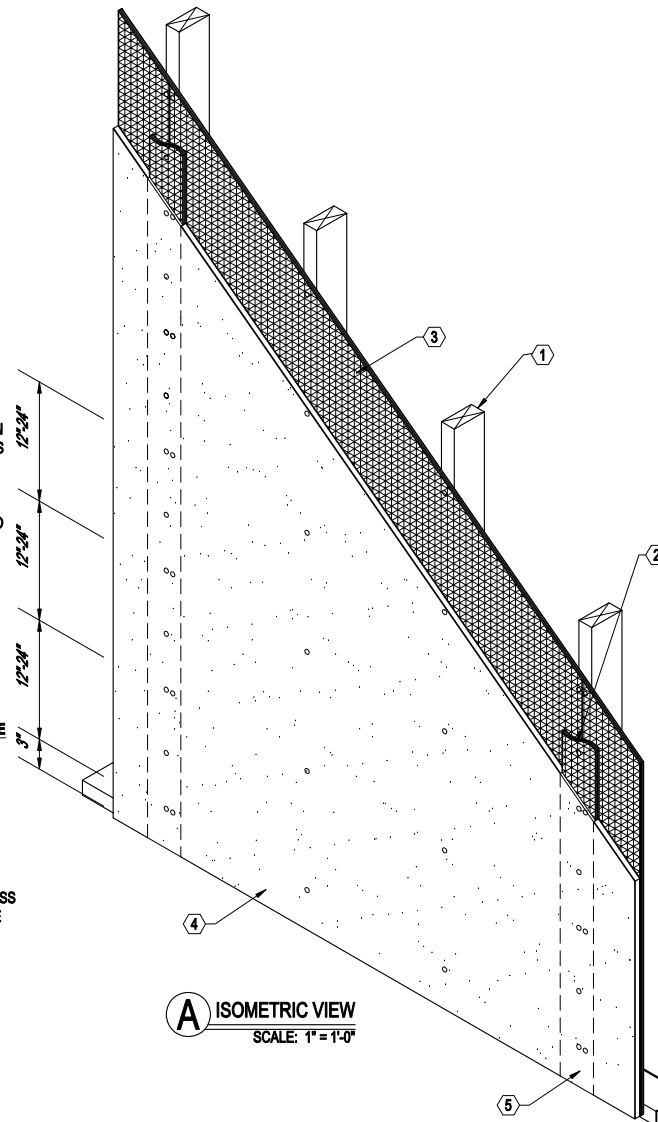
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#### NOTES

- ① METAL- OR WOOD-STUD FRAMING @ 16" O.C. (BY OTHERS)
- ② FIBERGLASS BATTEN STRIPS, 4" NOMINAL WIDTH, LOCATED AT SEAMS
- ③ FIBERGLASS BULLET-RESISTANT FIBERGLASS PANEL
- ④ DRYWALL OR OTHER WALL FINISH (BY OTHERS)
- ⑤ GYPSUM TAPING-MUD FLOAT

## BATTEN-OVER-FIBERGLASS FLOATING-AT-BATTENS METHOD



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