

**NOTES:**

1. PROVIDE ADEQUATE MOISTURE CONTROL AND USE GROUND COVER VAPOR RETARDER IN CRAWL SPACE. PANELS MUST BE DRY BEFORE APPLYING FINISH FLOOR.
2. FOR BUILDINGS WITH WOOD OR STEEL FRAMED WALLS, PROVIDE 3/4" TEMPORARY EXPANSION JOINTS WITH SEPARATE FLOOR FRAMING MEMBERS AND DISCONTINUOUS WALL PLATES OVER THE JOINTS, AT INTERVALS THAT LIMIT CONTINUOUS FLOOR AREAS TO 80 FEET MAXIMUM IN LENGTH OR WIDTH, TO ALLOW FOR ACCUMULATED EXPANSION DURING CONSTRUCTION IN WET WEATHER CONDITIONS.

1/8" SPACING IS RECOMMENDED AT ALL EDGE AND END JOINTS UNLESS OTHERWISE INDICATED BY PANEL MANUFACTURER

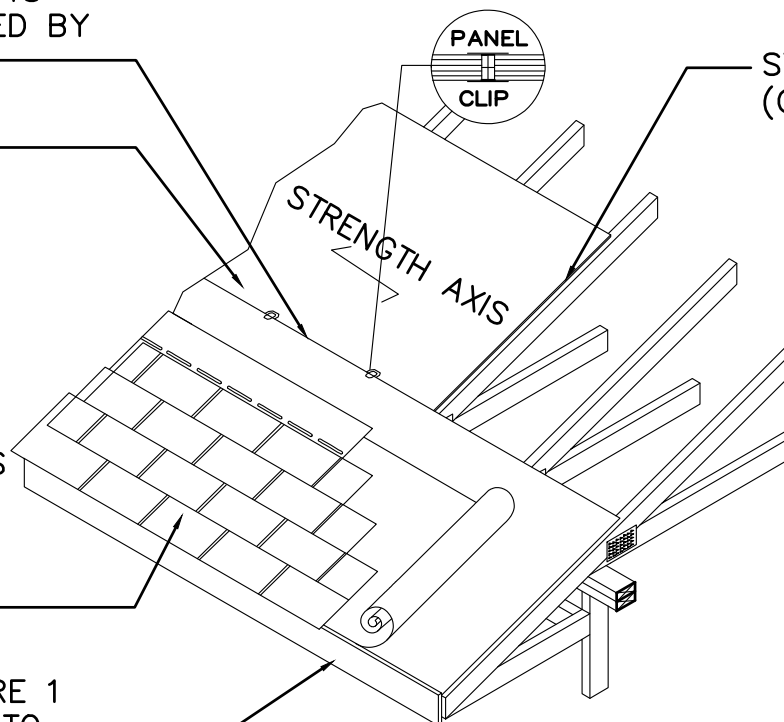
PANEL CLIP OR TONGUE-AND-GROOVE EDGES IF REQUIRED

STAGGER END JOINTS (OPTIONAL)

APA RATED SHEATHING

ASPHALT OR WOOD SHINGLES OR SHAKES. FOLLOW ROOFING MANUFACTURER'S RECOMMENDATIONS FOR ROOFING FELT.

PROTECT EDGES OF EXPOSURE 1 PANELS AGAINST EXPOSURE TO WEATHER, OR USE EXTERIOR PANEL STARTER STRIP

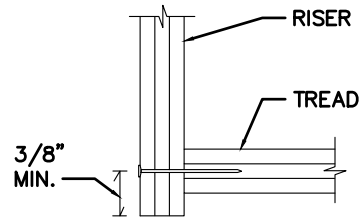


NOTES:

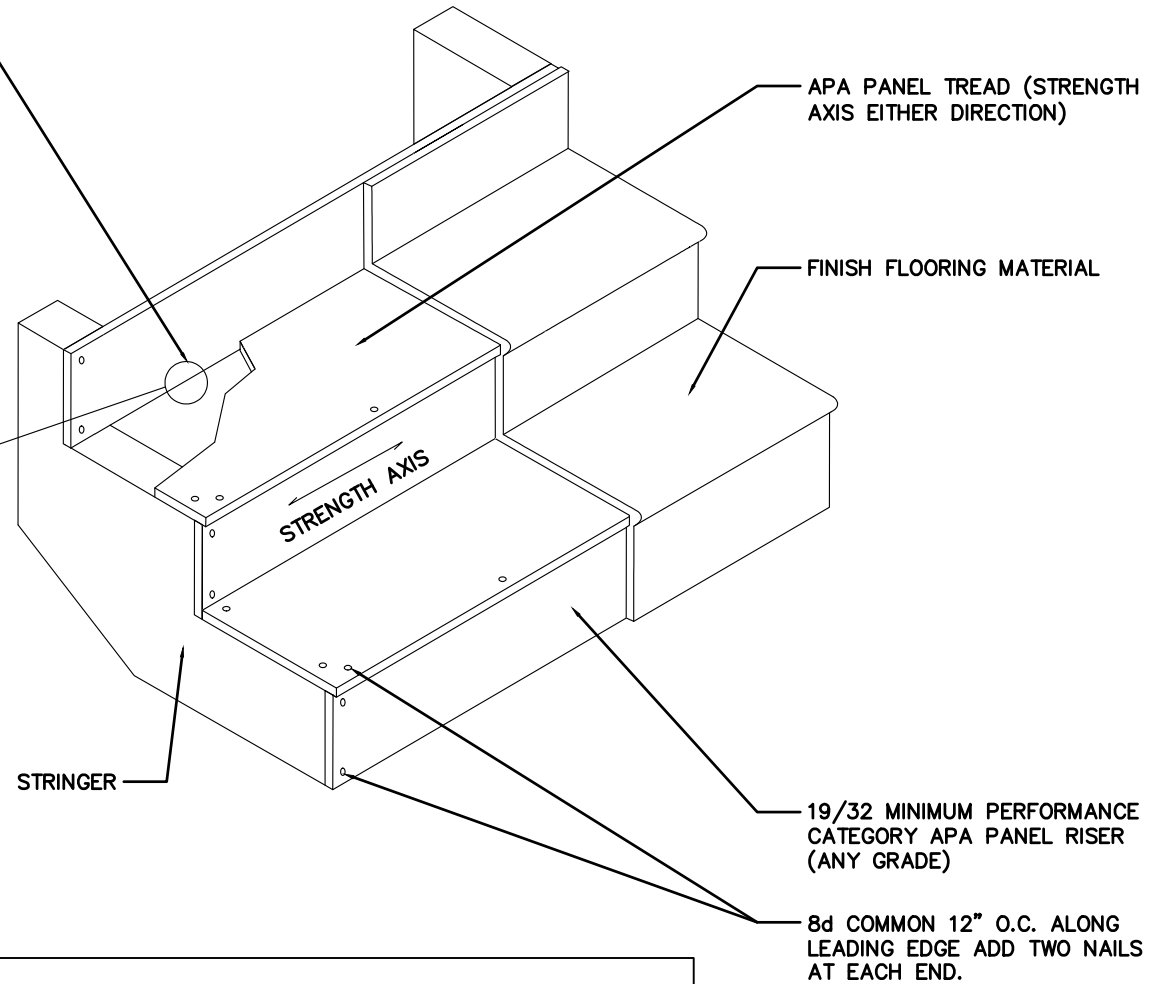
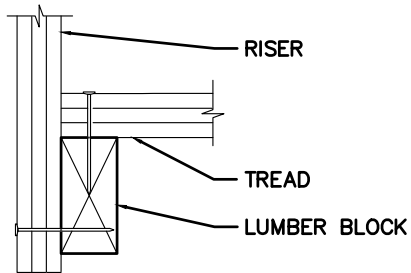
1. COVER SHEATHING AS SOON AS POSSIBLE WITH ROOFING FELT FOR EXTRA PROTECTION AGAINST EXCESSIVE MOISTURE PRIOR TO ROOFING APPLICATION.
2. FOR PITCHED ROOFS, PLACE SCREENED SURFACE OR SIDE WITH SKID-RESISTANT COATING UP IF OSB PANELS ARE USED. KEEP ROOF SURFACE FREE OF DIRT, SAWDUST AND DEBRIS, AND WEAR SKID-RESISTANT SHOES WHEN INSTALLING ROOF SHEATHING.
3. FOR BUILDINGS WITH CONVENTIONALLY FRAMED ROOFS (TRUSSES OR RAFTERS), LIMIT THE LENGTH OF CONTINUOUS SECTIONS OF ROOF AREA TO 80 FEET MAXIMUM DURING CONSTRUCTION TO ALLOW FOR ACCUMULATED EXPANSION IN WET WEATHER CONDITIONS. OMIT ROOF SHEATHING PANELS IN EACH COURSE OF SHEATHING BETWEEN SECTIONS AND INSTALL "FILL IN" PANELS LATER TO COMPLETE ROOF DECK INSTALLATION PRIOR TO APPLYING ROOFING.

8d COMMON NAILS 6" O.C.

DETAIL A (MAY BE USED FOR PLYWOOD TREADS AND 1-1/8 PERFORMANCE CATEGORY COMPOSITE PANEL OR OSB TREADS)



DETAIL B (PREFERRED)



**NOTE:**

1. PREDRILL TREAD END GRAIN AT MID-THICKNESS WITH 3/32" BIT. MAINTAIN AT LEAST 3/8" EDGE DISTANCE IN RISER.
2. ALL 8d COMMON NAILS SHALL BE 0.131"x 2-1/2".

STAGGER END JOINTS  
(OPTIONAL)

APA RATED SHEATHING

WOOD STRIP, WOOD  
BLOCKS, OR LIGHTWEIGHT  
CONCRETE FLOORING

2x RIM JOIST OR  
APA RIM BOARD

2x TREATED SILL

STRENGTH AXIS

PANEL EDGES T&G OR  
SUPPORTED ON BLOCKING  
(SHOWN) UNLESS COVERED  
WITH UNDERLAYMENT,  
LIGHT-WEIGHT CONCRETE  
OR WOOD STRIP FLOORING  
PERPENDICULAR TO THE  
UNSUPPORTED EDGES

2x JOIST, I-JOISTS OR  
FLOOR TRUSSES

1/8" SPACING IS  
RECOMMENDED AT ALL  
EDGE AND END JOINTS  
UNLESS OTHERWISE  
INDICATED BY PANEL  
MANUFACTURER

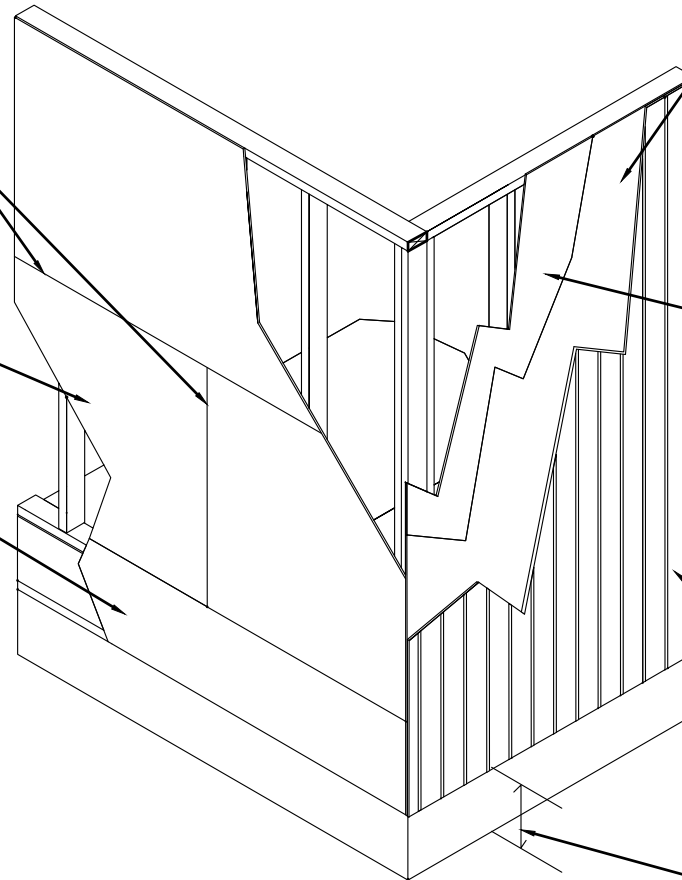
NOTES:

1. PROVIDE ADEQUATE MOISTURE CONTROL AND USE GROUND COVER VAPOR RETARDER IN CRAWL SPACE. SUBFLOOR MUST BE DRY BEFORE APPLYING SUBSEQUENT FLOOR.
2. FOR BUILDINGS WITH WOOD OR STEEL FRAMED WALLS, PROVIDE 3/4" TEMPORARY EXPANSION JOINTS WITH SEPARATE FLOOR FRAMING MEMBERS AND DISCONTINUOUS WALL PLATES OVER THE JOINTS, AT INTERVALS THAT LIMIT CONTINUOUS FLOOR AREAS TO 80 FEET MAXIMUM IN LENGTH OR WIDTH, TO ALLOW FOR ACCUMULATED EXPANSION DURING CONSTRUCTION IN WET WEATHER CONDITIONS.

1/8" SPACING IS RECOMMENDED  
AT ALL EDGE AND END JOINTS  
UNLESS OTHERWISE INDICATED  
BY PANEL MANUFACTURER

APA RATED SHEATHING  
APPLIED WITH STRENGTH  
AXIS ACROSS STUDS

FILLER STRIP IF REQUIRED



BUILDING PAPER OR OTHER  
CODE-RECOGNIZED  
WEATHER-RESISTIVE BARRIER

APA RATED SHEATHING APPLIED  
WITH STRENGTH AXIS PARALLEL  
TO STUDS

SIDING

6" MINIMUM CLEARANCE,  
SIDING TO GRADE

NOTE TO DESIGNER:

1. CHECK LOCAL BUILDING CODES FOR HORIZONTAL BLOCKING REQUIREMENTS BETWEEN STUDS FOR BRACED OR ENGINEERED SHEAR WALL SEGMENTS.



APA PANEL WALL SHEATHING

APA RATED SHEATHING SHALL MEET IRC REQUIREMENTS FOR WALL BRACING

BUILDING PAPER OR OTHER CODE-RECOGNIZED WEATHER-RESISTIVE BARRIER REQUIRED

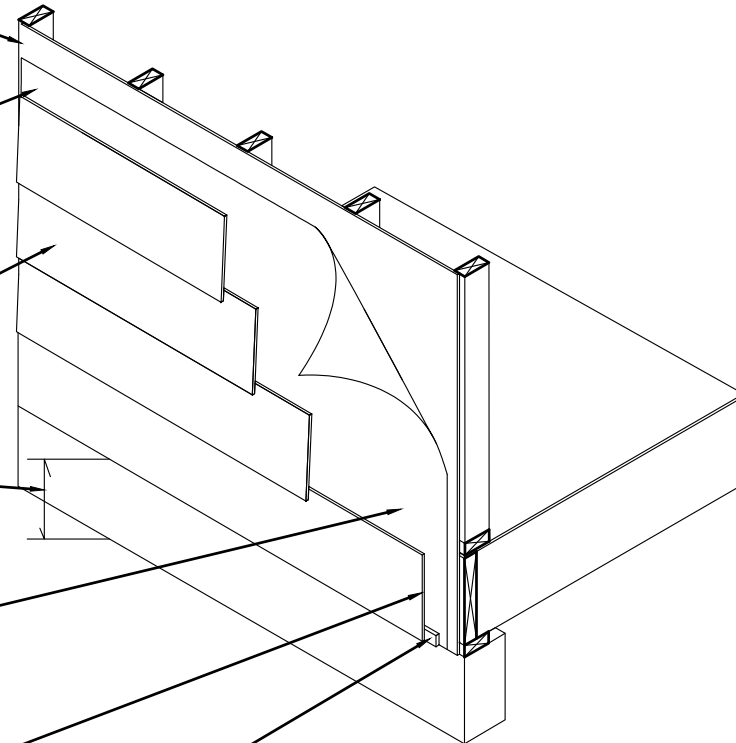
APA RATED SIDING (LAP SIDING), MAXIMUM WIDTH 12". MINIMUM HEADLAP 1".

6" MINIMUM CLEARANCE, SIDING TO GRADE

SIDING JOINTS, IF STAGGERED, MAY OCCUR AWAY FROM STUDS WITH NAILABLE SHEATHING

LEAVE 1/8" SPACING AND CAULK VERTICAL JOINTS, UNLESS OTHERWISE RECOMMENDED BY SIDING MANUFACTURER

1-1/2"-WIDE STARTER STRIP, THICKNESS TO MATCH LAP SIDING



APA RATED LAP SIDING OVER WSP

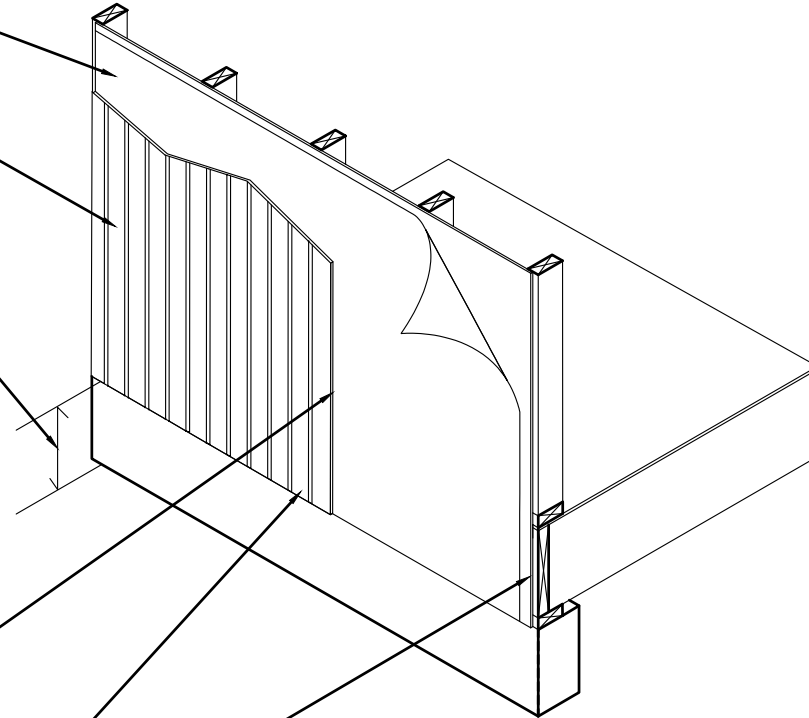
BUILDING PAPER OR OTHER  
CODE-RECOGNIZED  
WEATHER-RESISTIVE  
BARRIER REQUIRED

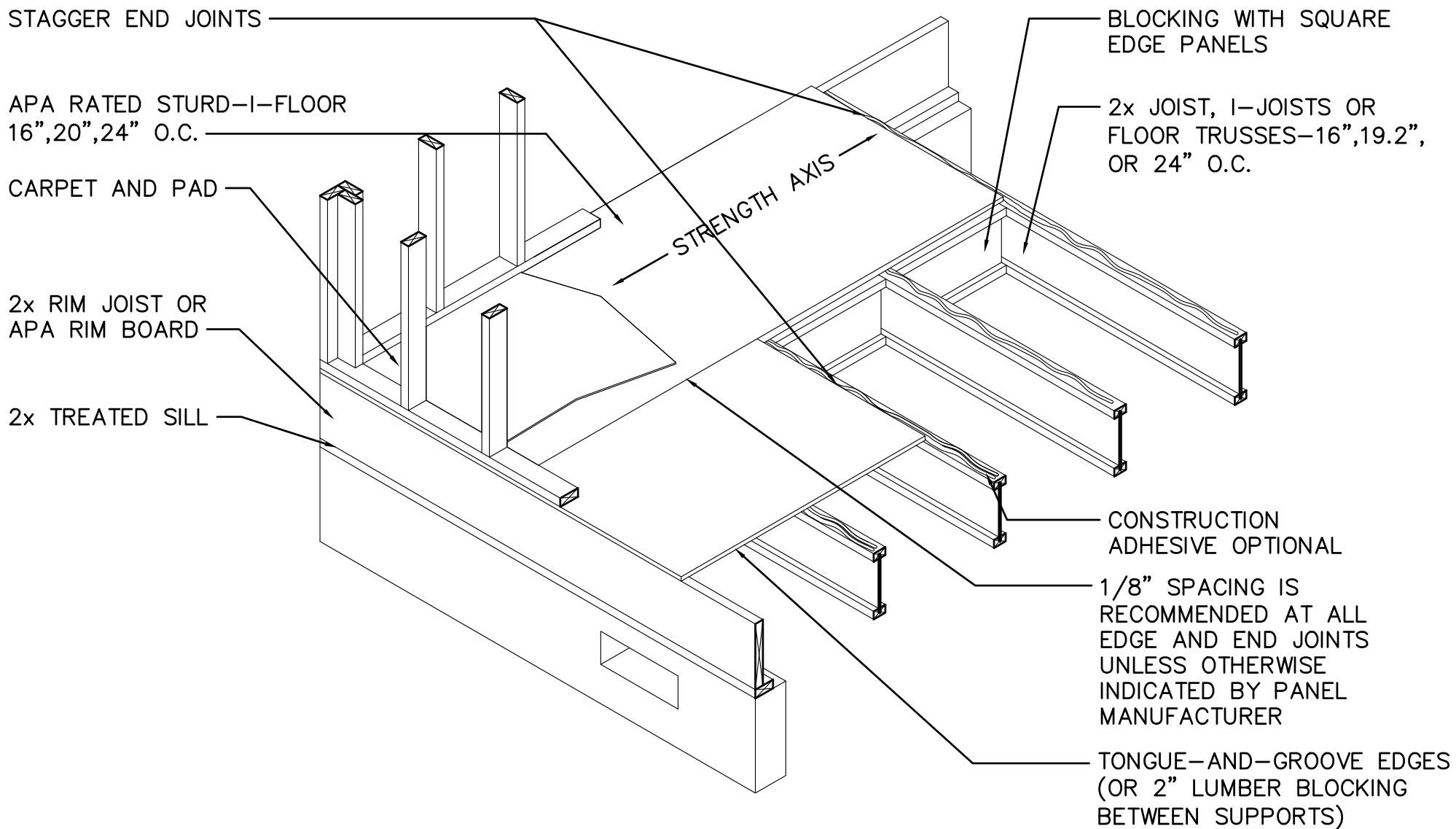
APA RATED SIDING PANELS  
APPLIED OVER SHEATHING

6" MIN. CLEARANCE, SIDING  
TO GRADE

1/8" SPACING IS RECOMMENDED  
AT ALL EDGE AND END JOINTS  
UNLESS OTHERWISE INDICATED BY  
PANEL MANUFACTURER

PANEL SIDING OR APA RATED  
SHEATHING MEETS CODE  
REQUIREMENT FOR WALL BRACING

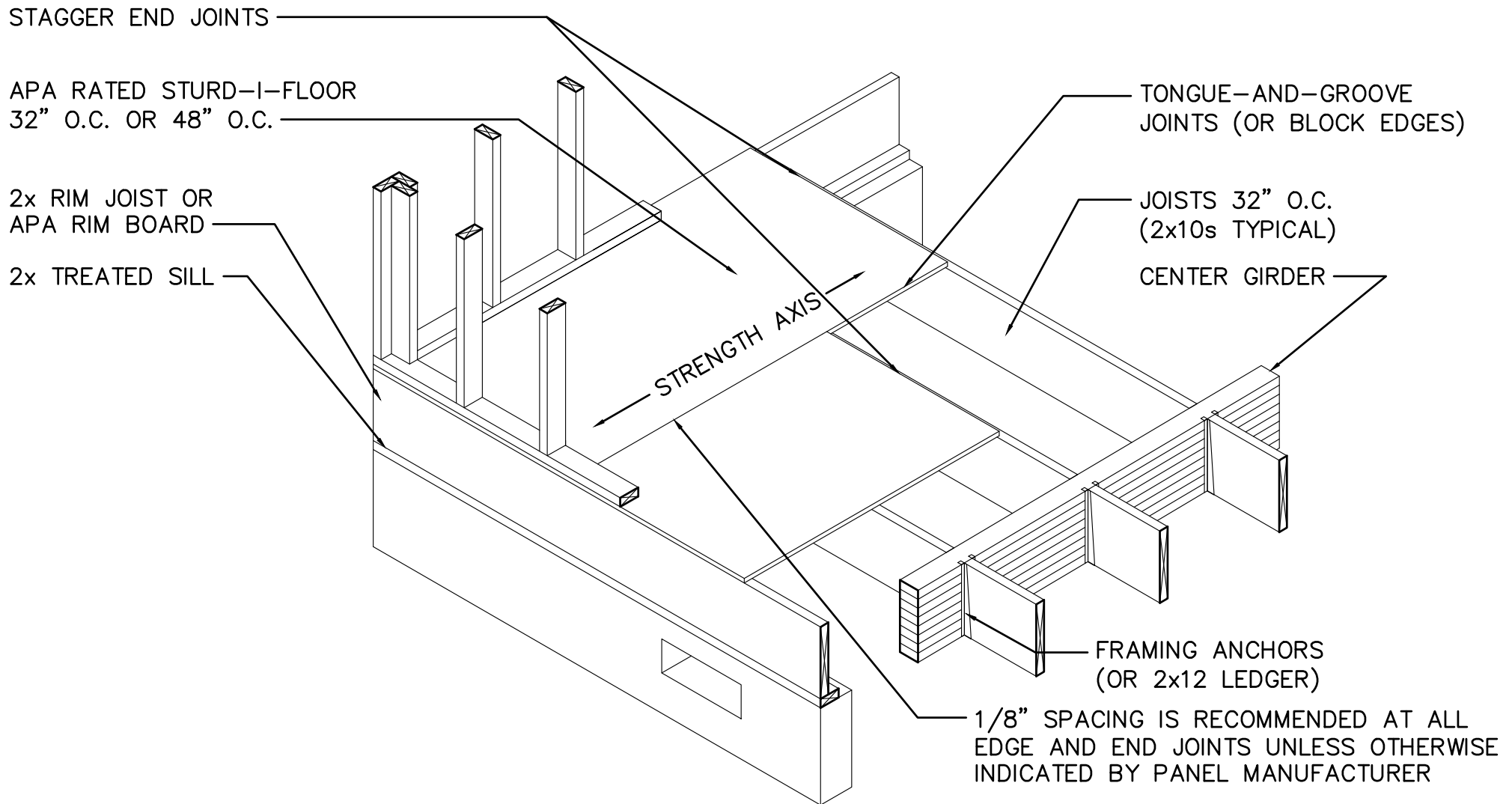




**NOTES:**

1. PROVIDE ADEQUATE MOISTURE CONTROL AND USE GROUND COVER VAPOR RETARDER IN CRAWL SPACE. PANELS MUST BE DRY BEFORE APPLYING FINISH FLOOR.
2. FOR BUILDING WITH WOOD OR STEEL FRAMED WALLS, PROVIDE  $\frac{3}{4}$ " TEMPORARY EXPANSION JOINTS WITH SEPARATE FLOOR FRAMING MEMBERS AND DISCONTINUOUS WALL PLATES OVER THE JOINTS, AT INTERVALS THAT LIMIT CONTINUOUS FLOOR AREAS TO 80 FEET MAXIMUM IN LENGTH OR WIDTH, TO ALLOW FOR ACCUMULATED EXPANSION DURING CONSTRUCTION IN WET WEATHER CONDITIONS.





NOTES:

1. PROVIDE ADEQUATE MOISTURE CONTROL AND USE GROUND COVER VAPOR RETARDER IN CRAWL SPACE. PANELS MUST BE DRY BEFORE APPLYING FINISH FLOOR.
2. FOR BUILDINGS WITH WOOD OR STEEL FRAMED WALLS, PROVIDE 3/4" TEMPORARY EXPANSION JOINTS WITH SEPARATE FLOOR FRAMING MEMBERS AND DISCONTINUOUS WALL PLATES OVER THE JOINTS, AT INTERVALS THAT LIMIT CONTINUOUS FLOOR AREAS TO 80 FEET MAXIMUM IN LENGTH OR WIDTH, TO ALLOW FOR ACCUMULATED EXPANSION DURING CONSTRUCTION IN WET WEATHER CONDITIONS.

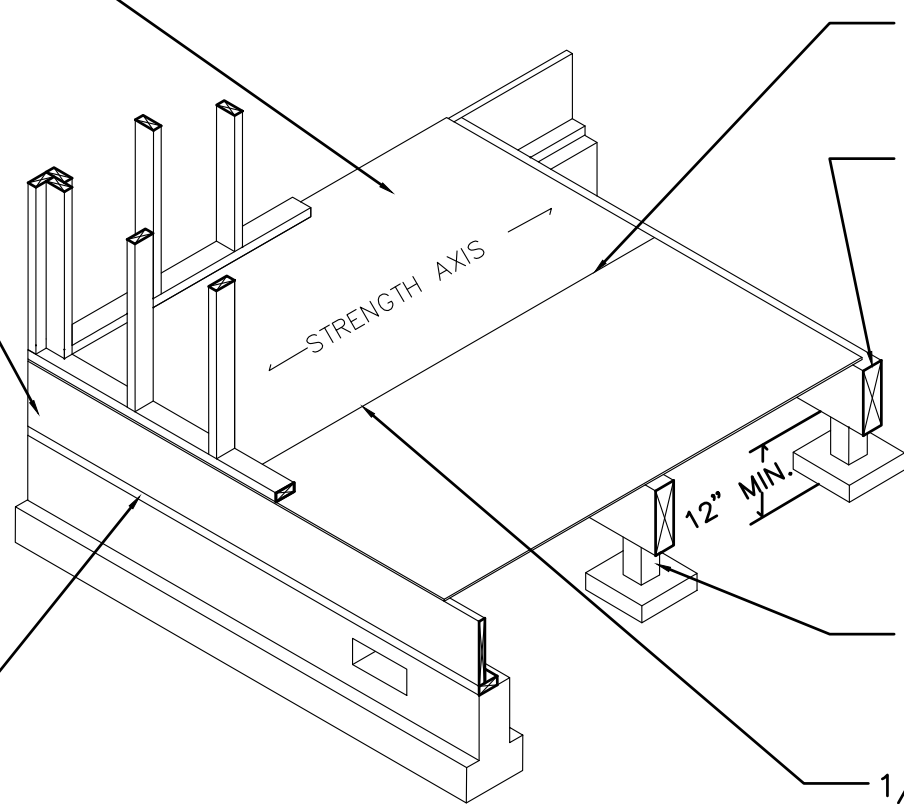


APA RATED SIF 32-48

APA RATED  
STURD-I-FLOOR 48 O.C.

2x RIM JOIST OR  
APA RIM BOARD

2x TREATED SILL



TONGUE AND GROOVE JOINTS  
(OR BLOCK EDGES)

4x GIRDER (OR DOUBLE 2x  
CONNECTED TOGETHER)

4x4 POST

1/8" SPACING IS RECOMMENDED AT  
ALL EDGE AND END JOINTS UNLESS  
OTHERWISE INDICATED BY PANEL  
MANUFACTURER

NOTES:

1. PROVIDE ADEQUATE MOISTURE CONTROL AND USE GROUND COVER VAPOR BARRIER IN CRAWL SPACE. PANELS MUST BE DRY BEFORE APPLYING FINISH FLOOR.
2. FOR BUILDING WITH WOOD OR STEEL FRAMED WALLS, PROVIDE 3/4" TEMPORARY EXPANSION JOINTS WITH SEPARATE FLOOR FRAMING MEMBERS AND DISCONTINUOUS WALL PLATES OVER THE JOINTS, AT INTERVALS THAT LIMIT CONTINUOUS FLOOR AREAS TO 80 FEET MAXIMUM IN LENGTH OR WIDTH, TO ALLOW FOR ACCUMULATED EXPANSION DURING CONSTRUCTION IN WET WEATHER CONDITIONS.



APA RATED SIF 48

BUILDING PAPER OR OTHER  
CODE-RECOGNIZED  
WEATHER-RESISTIVE BARRIER

BATTENS AT 4' OR 8' O.C. TO  
CONCEAL BUTT JOINTS AT  
PANEL ENDS. NAILS THROUGH  
BATTENS MUST PENETRATE  
STUDS AT LEAST 1".

APA RATED SIDING PANELS  
(NAILING AS REQUIRED FOR  
VERTICAL INSTALLATION)

1/8" SPACING IS  
RECOMMENDED AT ALL EDGE  
AND END JOINTS UNLESS  
OTHERWISE INDICATED BY  
PANEL MANUFACTURER

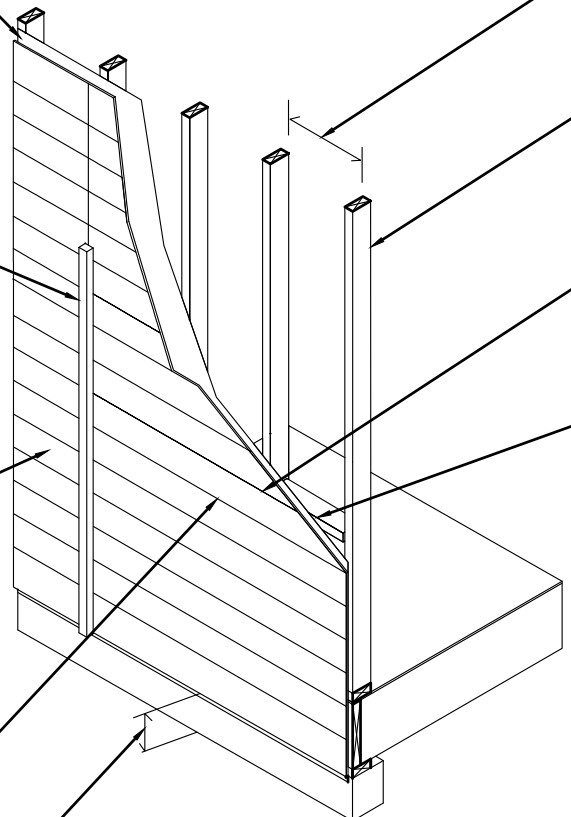
6" MINIMUM CLEARANCE,  
SIDING TO GRADE

MAXIMUM STUD SPACING  
PER APA SPAN RATING

PANEL SIDING SHALL MEET IRC  
REQUIREMENTS FOR WALL BRACING

SEAL PANEL EDGES

2x4 BLOCKING AT  
HORIZONTAL JOINTS



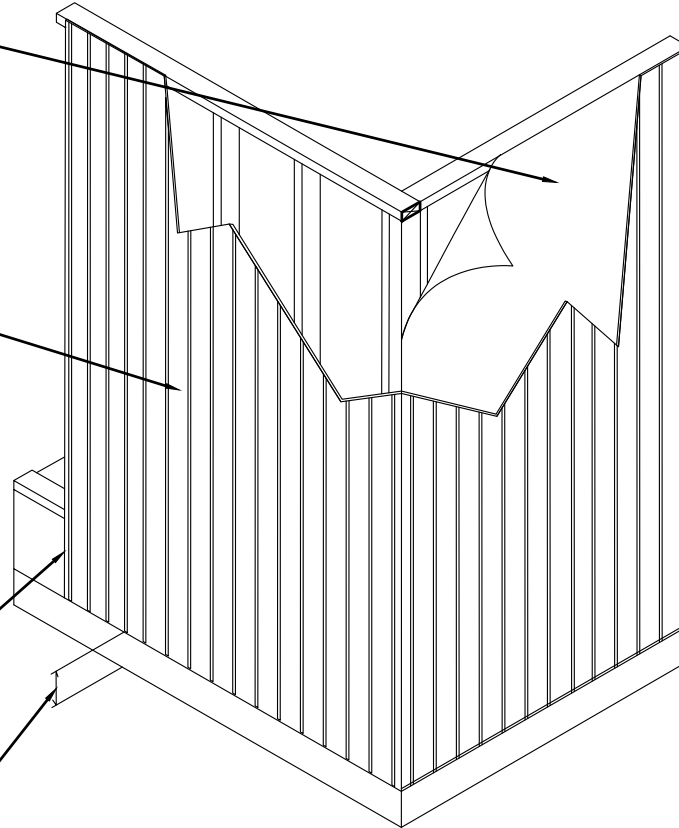
**EWG-12** APA STURD-I-WALL WITH H. PANEL SIDING

BUILDING PAPER OR CODE-RECOGNIZED  
WEATHER-RESISTIVE BARRIER REQUIRED  
BEHIND SIDING

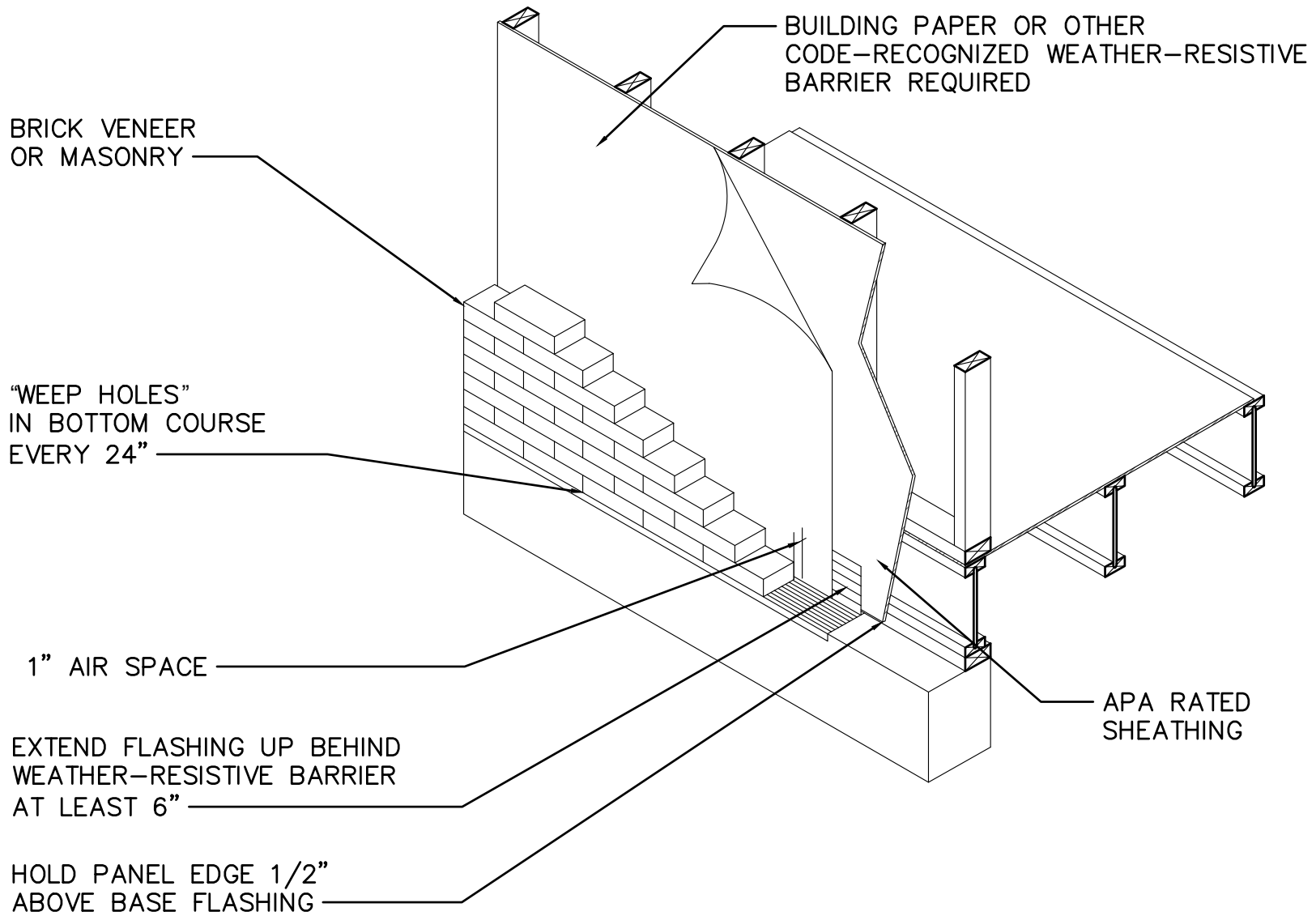
APA RATED SIDING PANELS, ALL EDGES  
SUPPORTED BY FRAMING OR BLOCKING.  
PANEL SIDING SHALL MEET IRC  
REQUIREMENTS FOR WALL BRACING.

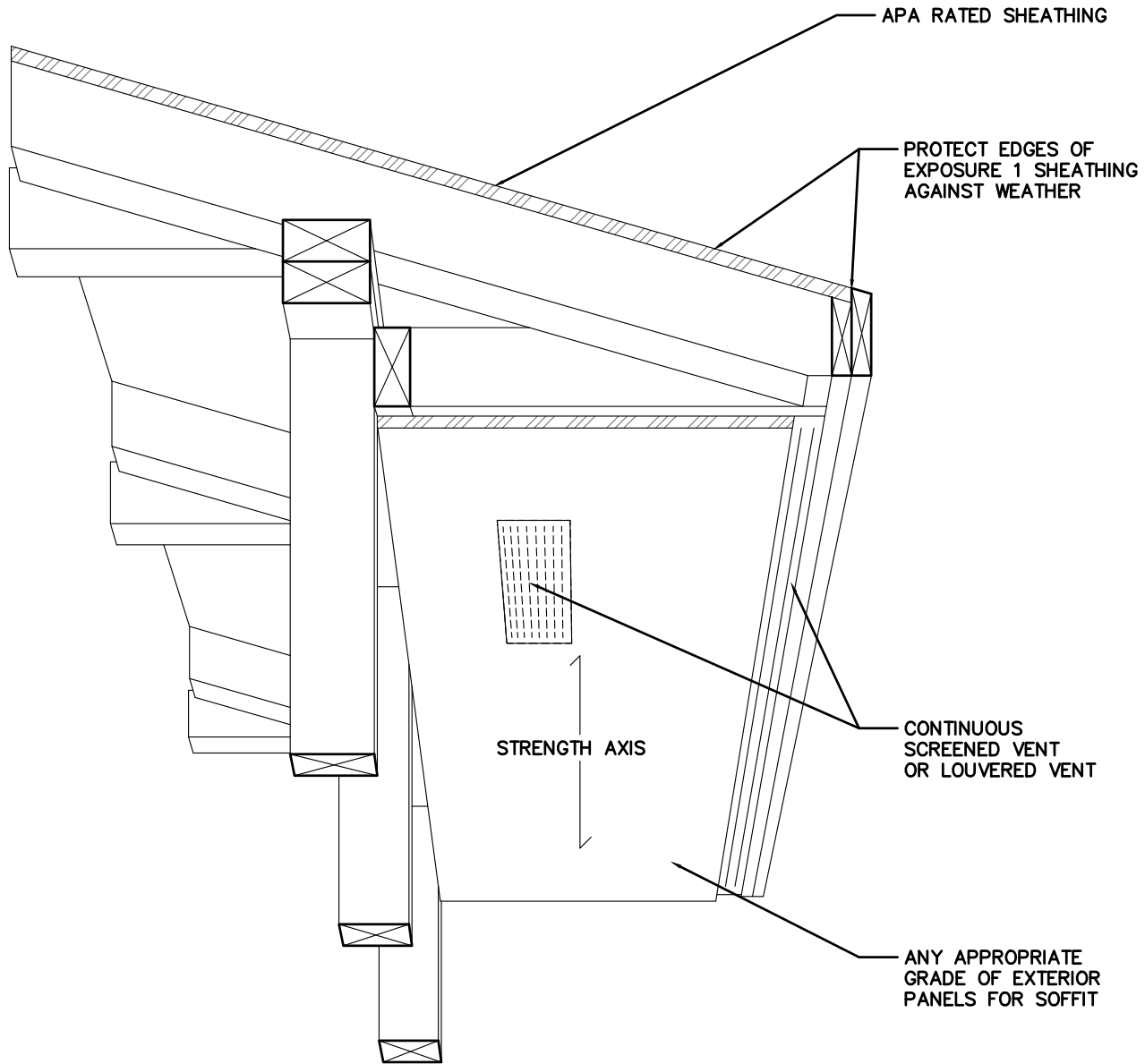
1/8" SPACING IS RECOMMENDED  
AT ALL EDGE AND END JOINTS  
UNLESS OTHERWISE INDICATED  
BY PANEL MANUFACTURER

6" MINIMUM CLEARANCE, SIDING  
TO GRADE



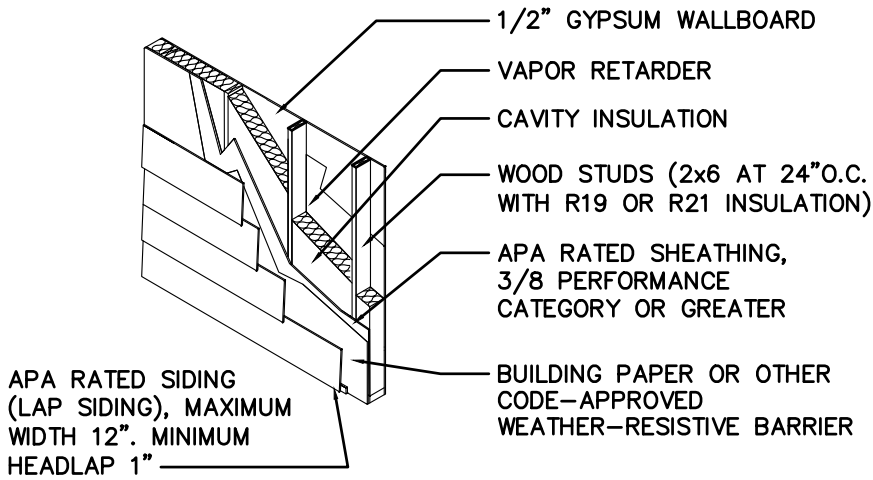
APA STURD-I-WALL WITH V. PANEL SIDING





**NOTE:**  
LEAVE 1/8" SPACE AT ALL PANEL END AND EDGE JOINTS. SUPPORT ALL PANEL EDGES.

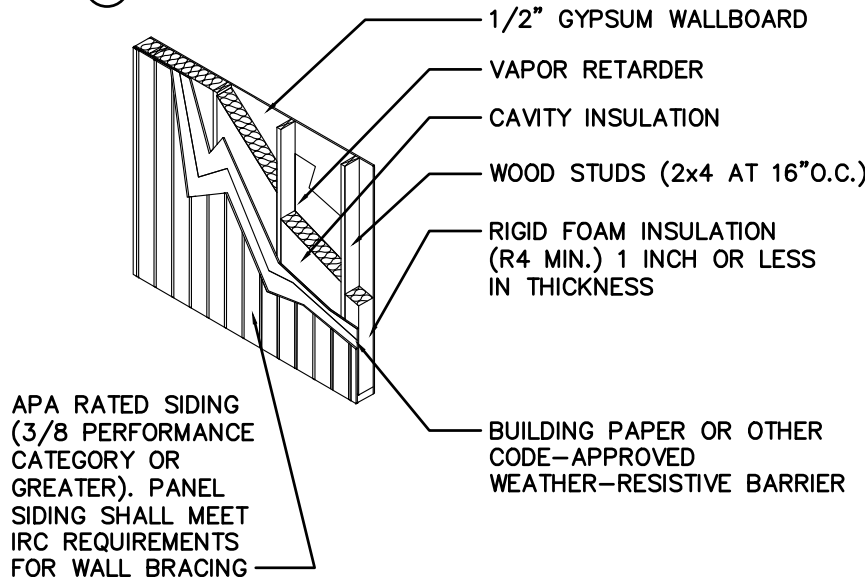
**A** APA RATED LAP SIDING OVER WOOD STRUCTURAL PANEL SHEATHING AND ADVANCED FRAMING



	$\frac{R}{0.17}$
OUTSIDE SURFACE (15 MPH WIND) APA RATED SHEATHING	0.43-0.78
CAVITY INSULATION: OPTION A-R20	20.00
OPTION B-R21	21.00
1/2" GYPSUM WALLBOARD	0.45
INSIDE SURFACE (STILL AIR)	0.68

INSULATION OPTION	AVERAGE U	MINIMUM EFFECTIVE R=1/U
A	0.061	16.27
B	0.060	16.70

**B** APA RATED SIDING OVER RIGID FOAM INSULATION SHEATHING AND CONVENTIONAL FRAMING



	$\frac{R}{0.17}$
OUTSIDE SURFACE (15 MPH WIND) APA RATED SIDING	0.43-0.78
RIGID FOAM INSULATION	4.00 (MIN.)
CAVITY INSULATION: OPTION C -R13	13.00
OPTION D -R15	15.00
OPTION E -R20	20.00
OPTION F -R21	21.00
1/2" GYPSUM WALLBOARD	0.45
INSIDE SURFACE (STILL AIR)	0.68

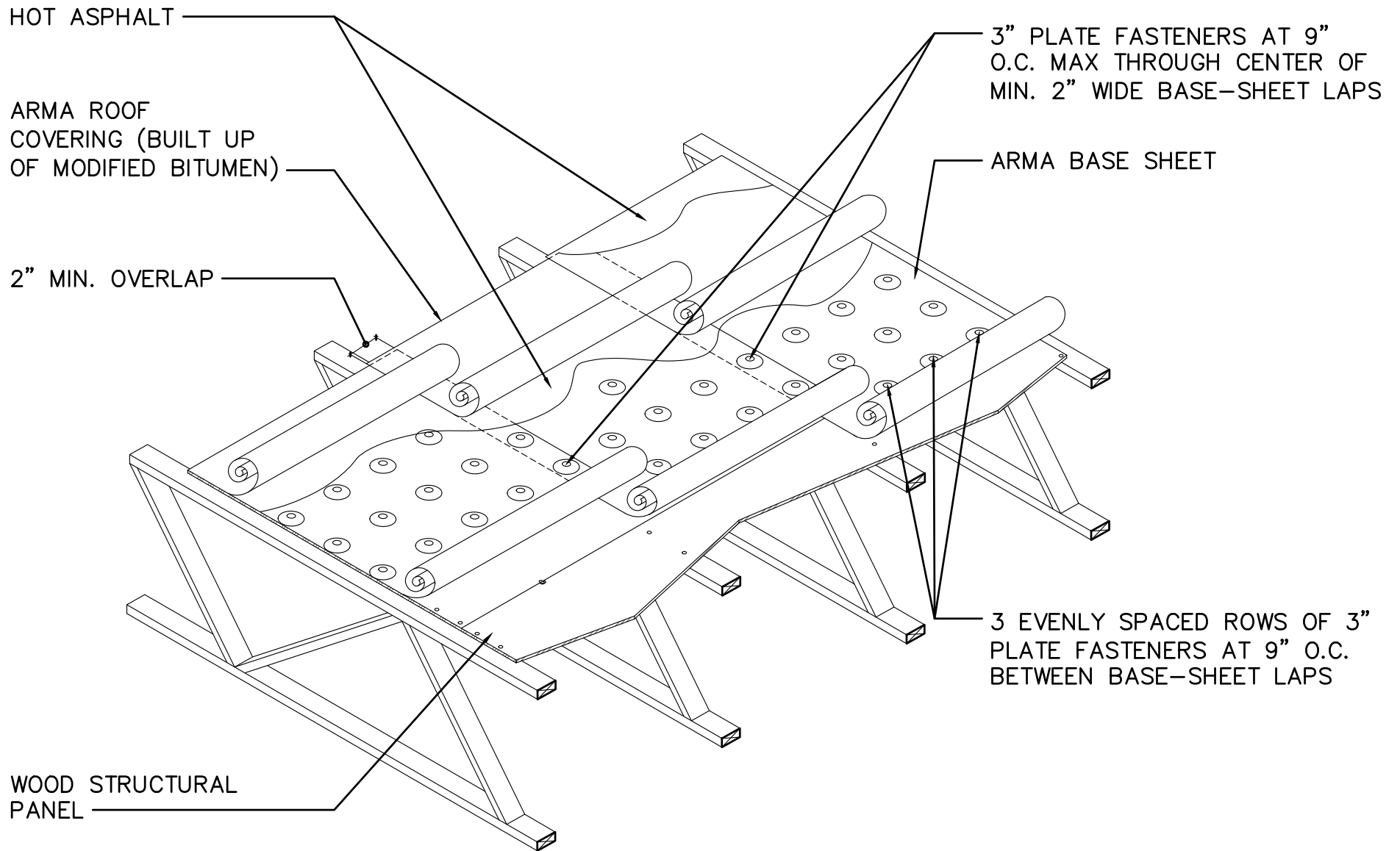
INSULATION OPTION	AVERAGE U	MINIMUM EFFECTIVE R=1/U
C	0.065	15.44
D	0.061	16.42
E	0.048	20.94
F	0.047	21.45

**NOTE:**

- WHERE FOAM SHEATHING AND WOOD STRUCTURAL PANEL SIDING ARE USED AT COLD SIDE OF WALL, USE A 4-MIL POLYETHYLENE VAPOR RETARDER OR FOIL-BACKED GYPSUM WALLBOARD ON THE WARM SIDE OF WALL.
- AVERAGE U VALUES INCLUDE ADJUSTMENT FOR 25% FRAMING AREA WITH STUDS SPACED 16"O.C. WHEN STUDS ARE SPACED 24"O.C. (22% FRAMING AREA), AVERAGE U VALUES ARE SLIGHTLY LOWER AND CORRESPONDING R-VALUES ARE HIGHER. AVERAGE U VALUE IS BASED ON R-VALUE AT FRAMING OF 4.38 FOR 2x4 WOOD STUDS AND 6.88 FOR 2x6 WOOD STUDS.
- CONSULT RIGID FOAM MANUFACTURER FOR R-VALUE AND PANEL PERMEABILITY VALUES.

**NOTES TO DESIGNER:**

- SEE APA TECHNICAL TOPICS: WOOD MOISTURE CONTENT AND THE IMPORTANCE OF DRYING IN WOOD BUILDING SYSTEMS, FORM TT- 111
- SEE APA TECHNICAL NOTE: APA RATED SIDING PANELS OVER RIGID FOAM INSULATION SHEATHING, FORM C465





ARMA ROOF  
COVERING (BUILT  
UP OR MODIFIED  
BITUMEN)

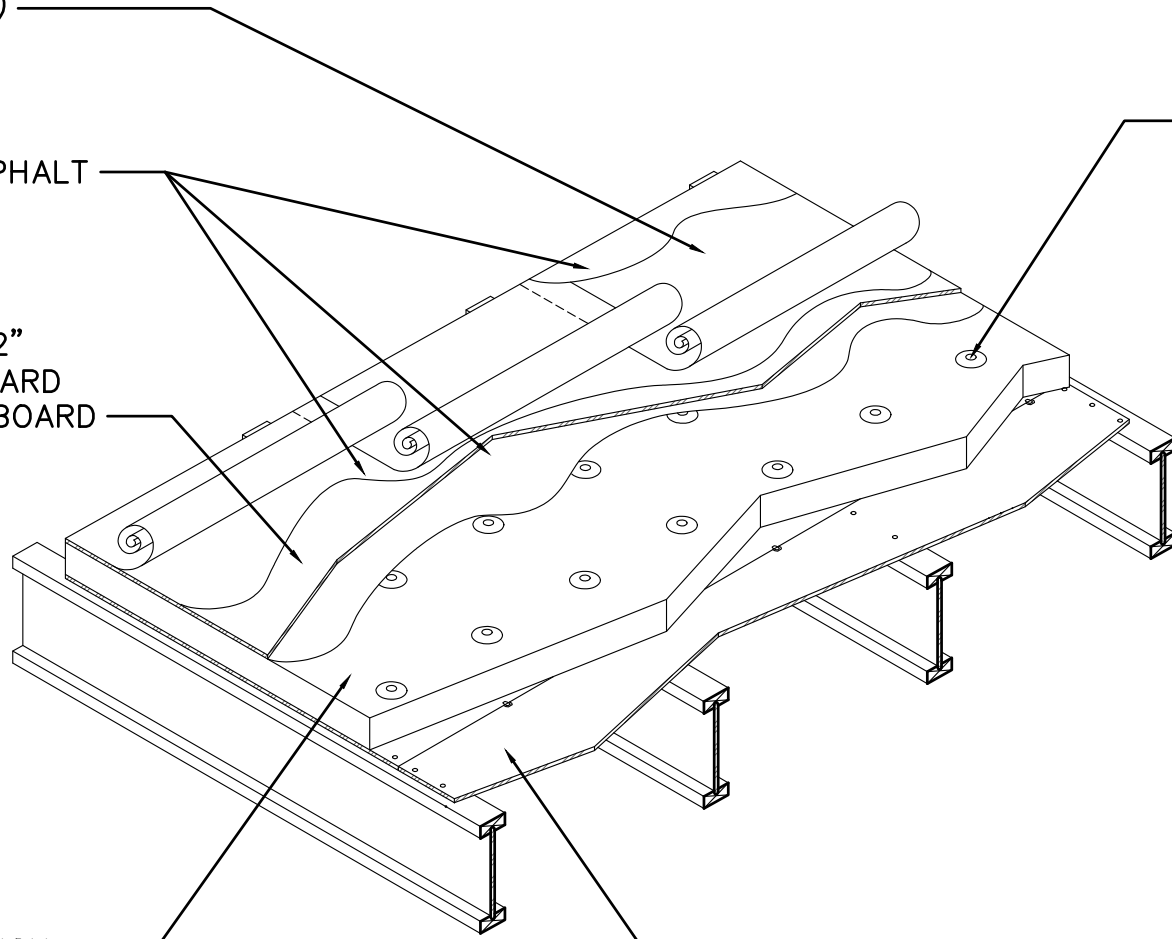
HOT ASPHALT

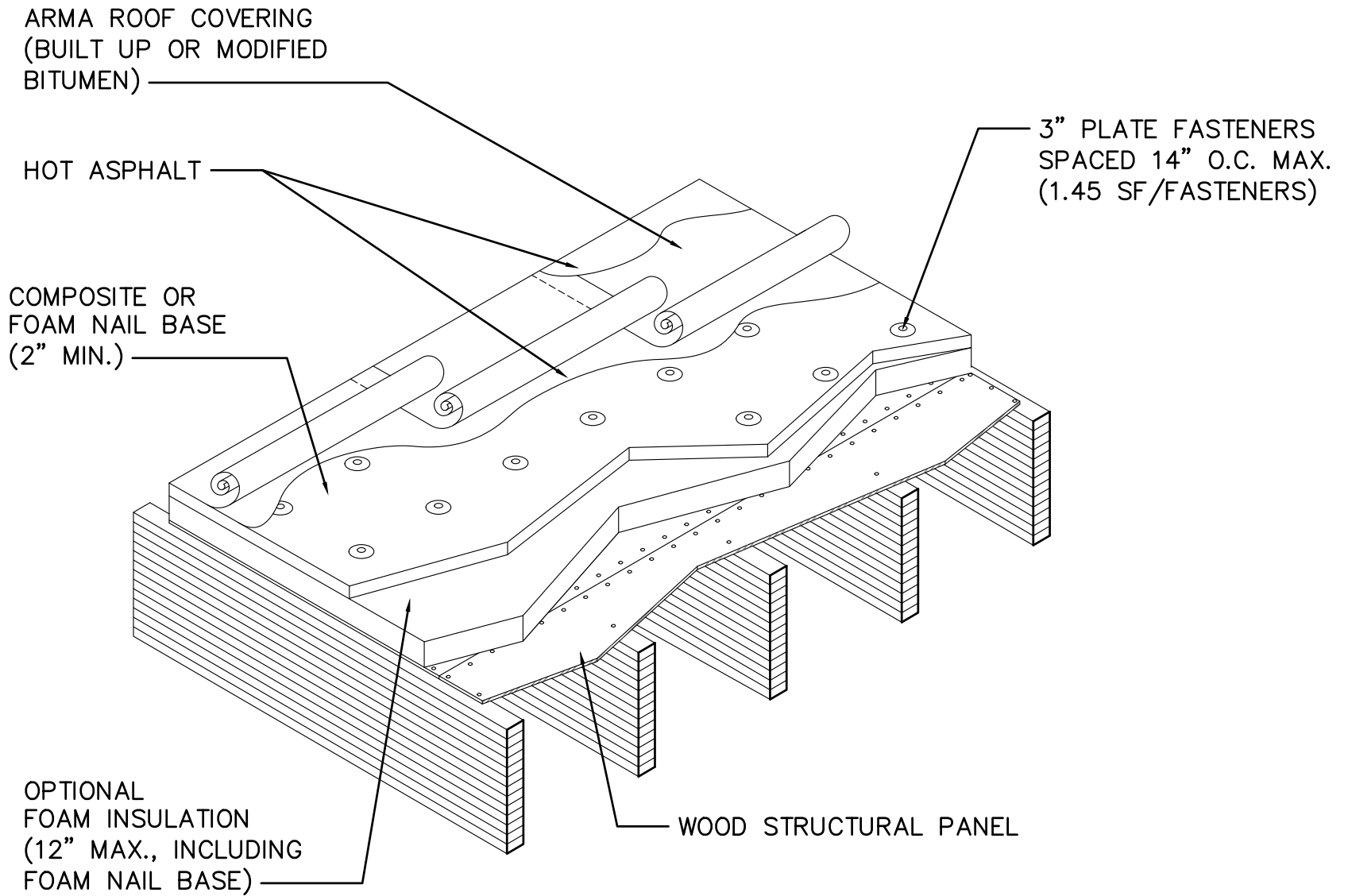
MIN. 1/2"  
FIBERBOARD  
COVER BOARD

3" PLATE FASTENERS  
SPACED 14" O.C. MAX.  
(1.45 SF/FASTENERS)

FOAM  
INSULATION  
(12" MAX)

WOOD STRUCTURAL PANEL





HOT ASPHALT

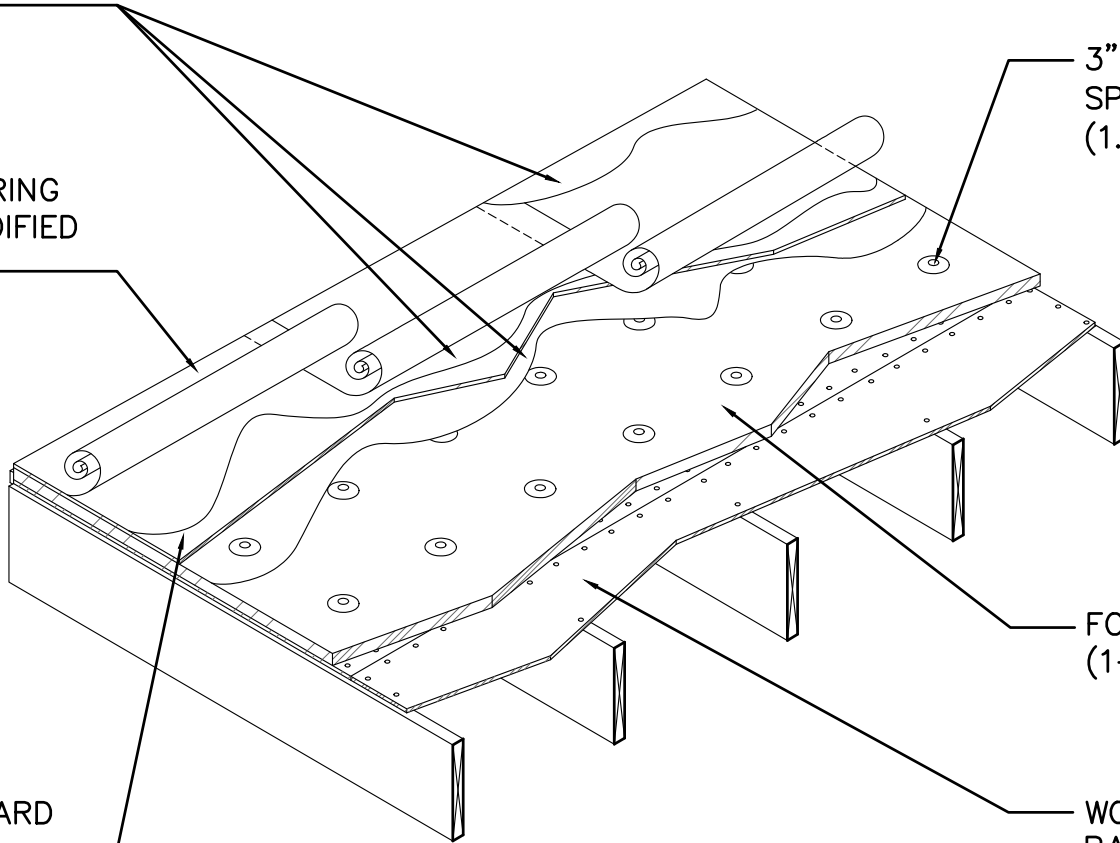
ARMA ROOF COVERING  
(BUILT UP OR MODIFIED  
BITUMEN)

MIN 1/2" FIBERBOARD  
COVER BOARD

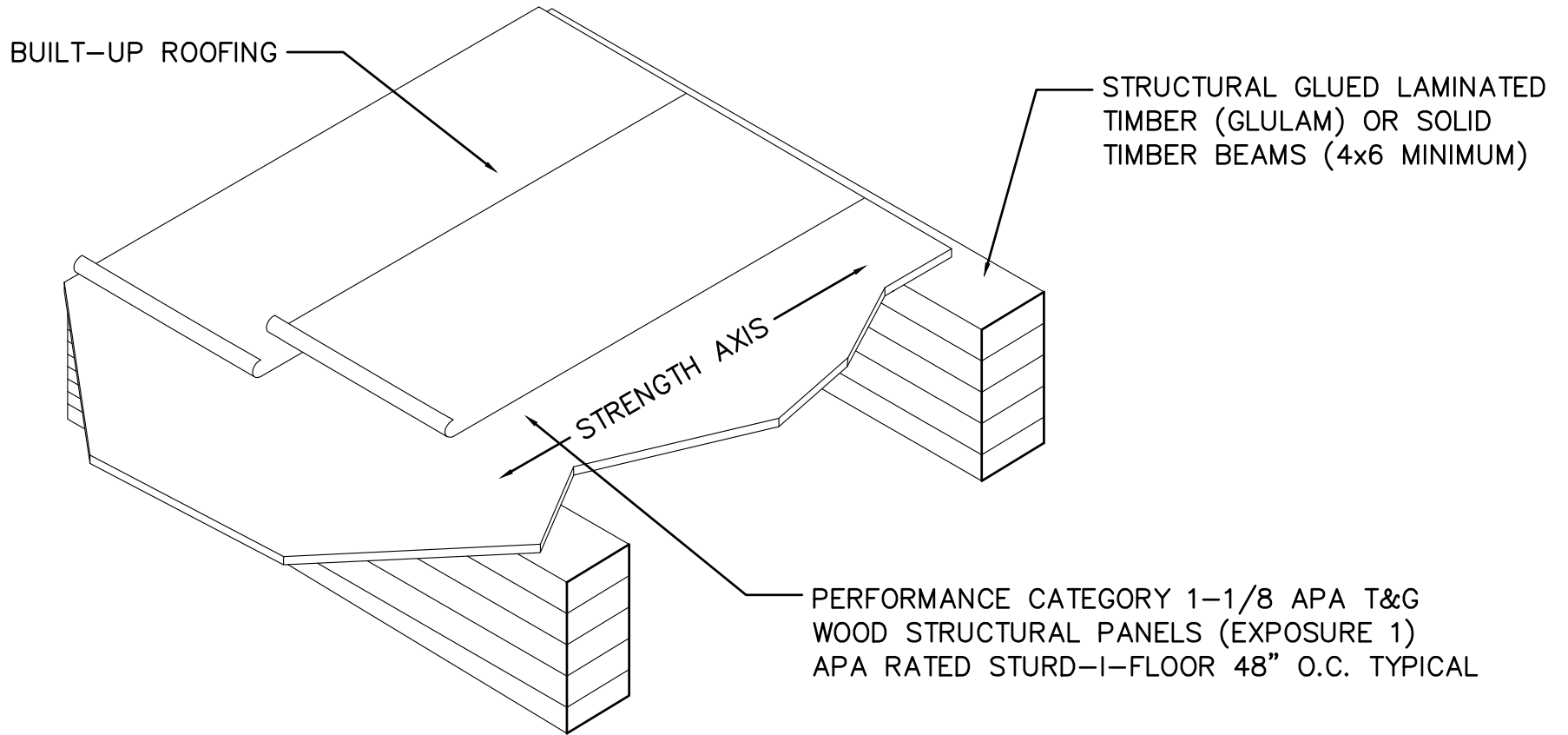
3" PLATE FASTENERS  
SPACED 14" O.C. MAX  
(1.45 SF/FASTENERS)

FOAM INSULATION  
(1-1/2" MIN)

WOOD STRUCTURAL  
PANEL

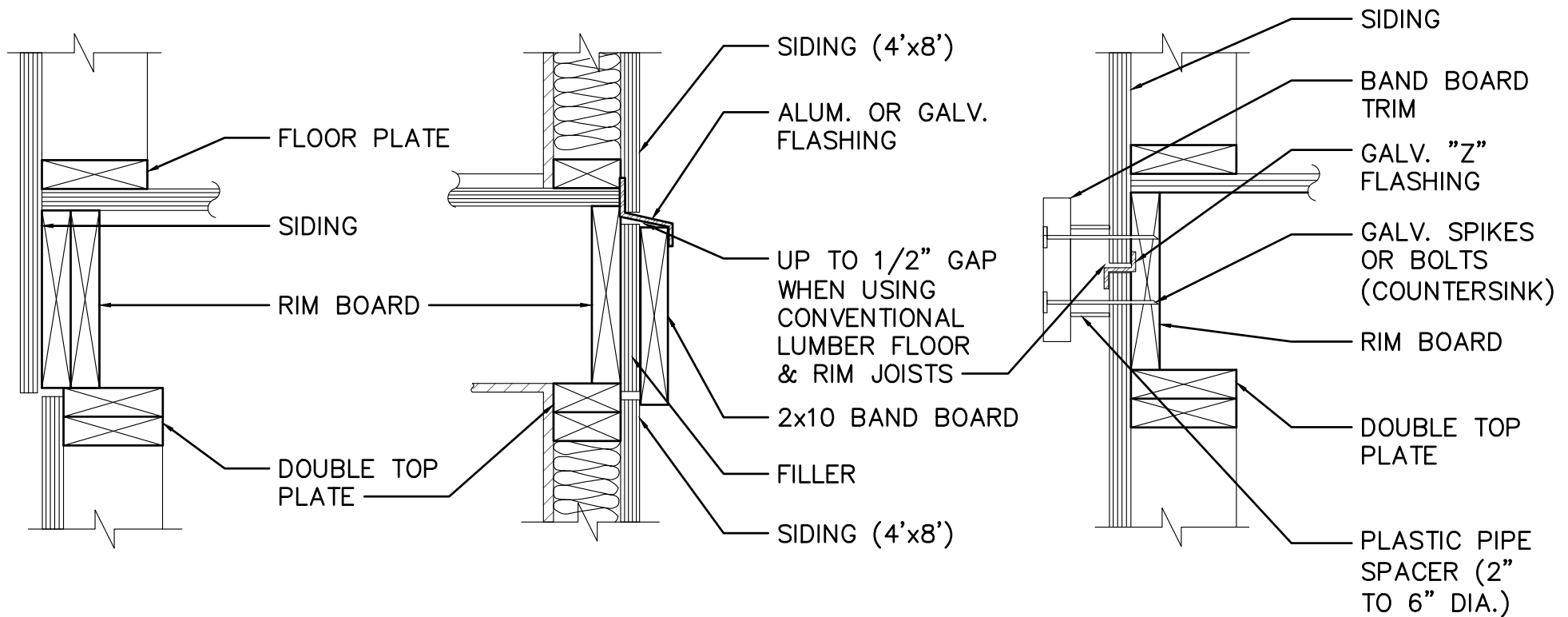


EWG-20 FM CLASS 1-90



NOTE TO DESIGNER:

1. FOR MULTISTORY BUILDINGS, WHEN CONVENTIONAL LUMBER FLOOR JOISTS AND RIM BOARDS ARE USED, MAKE PROVISIONS AT HORIZONTAL JOINTS FOR SHRINKAGE OF FRAMING, ESPECIALLY WHEN APPLYING SIDING DIRECT TO STUDS.

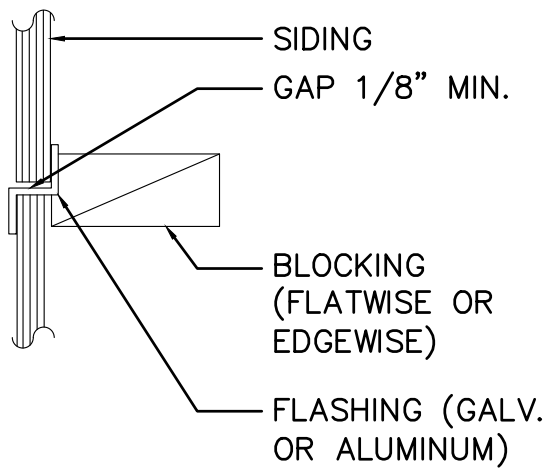


JOG EXTERIOR STUD LINE

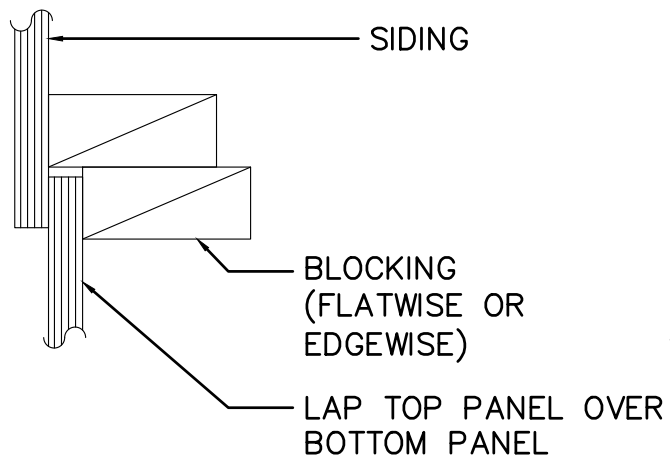
BAND BOARD OVER PANEL FILLER

BAND BOARD IN RELIEF

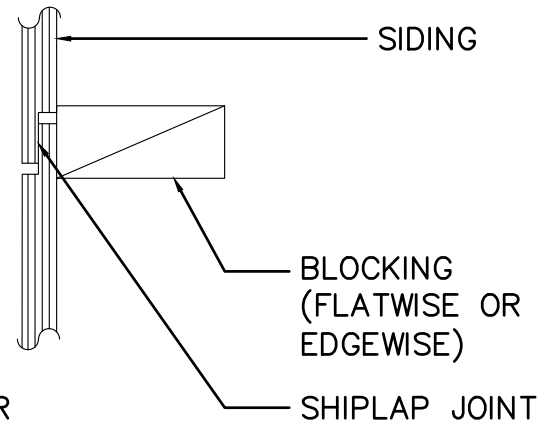




BUTT & FLASH



LAP



SHIPLAP

RESILIENT TILE OR SHEET  
FLOORING, CARPET OR  
NONSTRUCTURAL FLOORING

STAGGER END JOIST BY AT LEAST ONE  
JOIST SPACING IN UNDERLAYMENT  
PANELS (OPTIONAL UNDER CARPET AND  
PAD) FOR MAXIMUM STIFFNESS AND  
STRENGTH

MIN. 2" OFFSET FROM  
SUBFLOOR EDGE JOINTS

JOINT STAGGER  
OPTIONAL FOR  
SUBFLOOR PANELS

SUBFLOOR AND  
UNDERLAYMENT PANELS  
ORIENTED WITH  
STRENGTH (LONG) AXIS  
ACROSS SUPPORTS

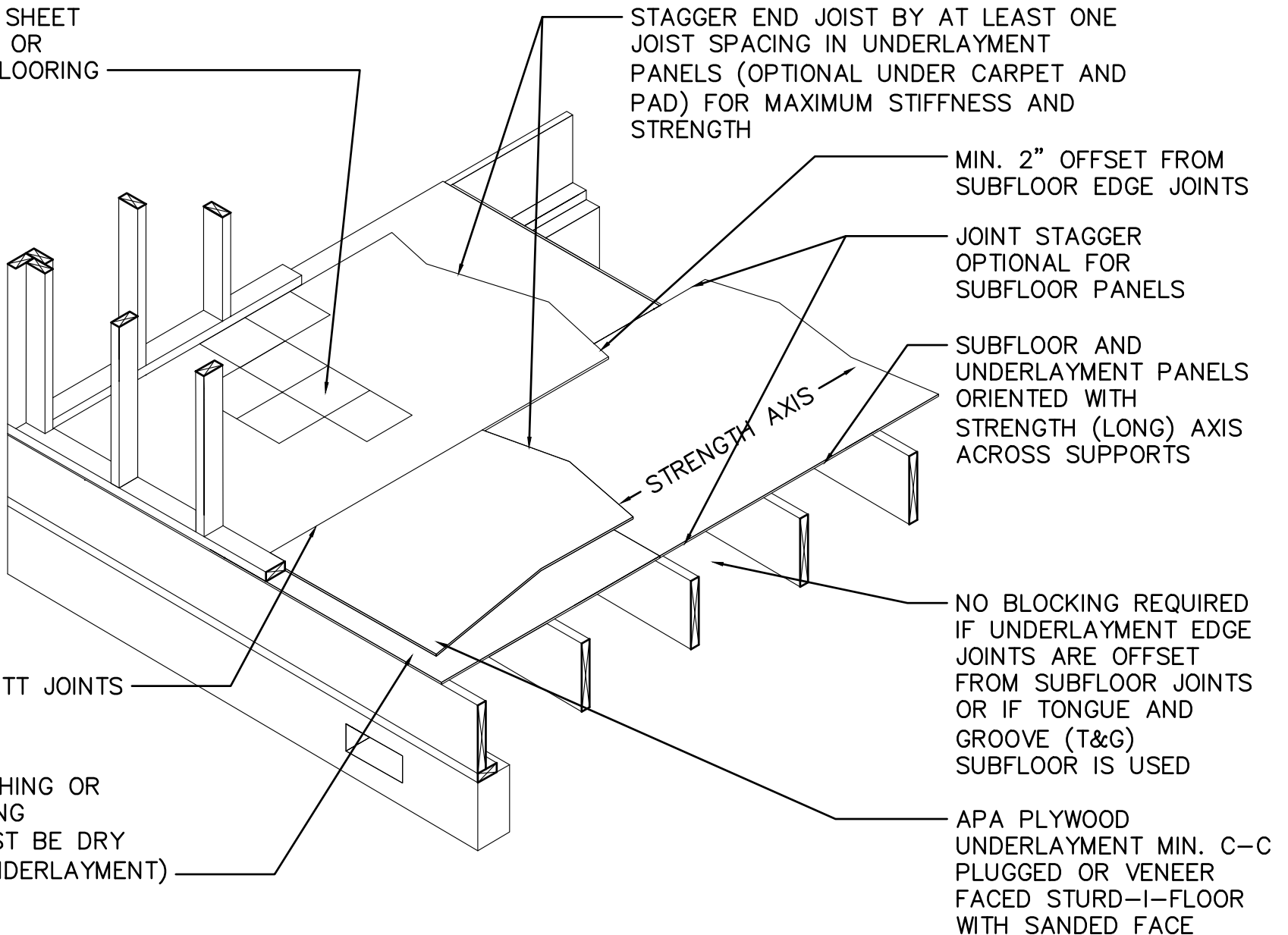
STRENGTH AXIS

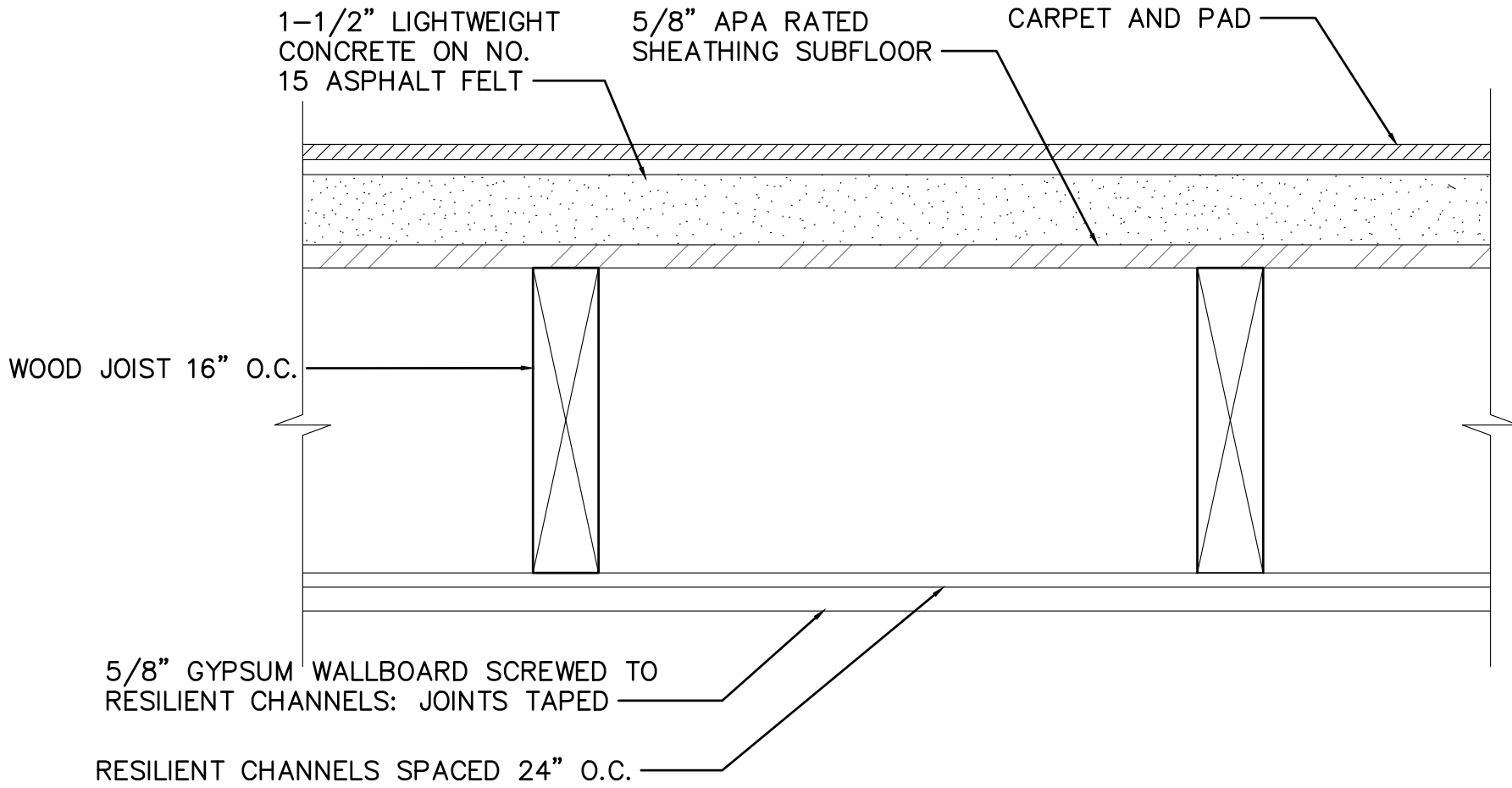
NO BLOCKING REQUIRED  
IF UNDERLAYMENT EDGE  
JOINTS ARE OFFSET  
FROM SUBFLOOR JOINTS  
OR IF TONGUE AND  
GROOVE (T&G)  
SUBFLOOR IS USED

SPACING OF 1/32"  
RECOMMENDED AT  
UNDERLAYMENT BUTT JOINTS

APA RATED SHEATHING OR  
BOARD SUBFLOORING  
(SUBFLOORING MUST BE DRY  
BEFORE LAYING UNDERLAYMENT)

APA PLYWOOD  
UNDERLAYMENT MIN. C-C  
PLUGGED OR VENEER  
FACED STURD-I-FLOOR  
WITH SANDED FACE





NOTE TO DESIGNER:  
 1. ALSO MEETS MINIMUM CONSTRUCTION REQUIREMENTS FOR ONE-HOUR FIRE-RATED FLOOR-CEILING ASSEMBLY PER UNDERWRITERS LABORATORY (U.L.) DESIGN NO. L514. REF. GEIGER AND HAMME, INC. TESTS CCA-10MT AND CCA-11MT (1972).

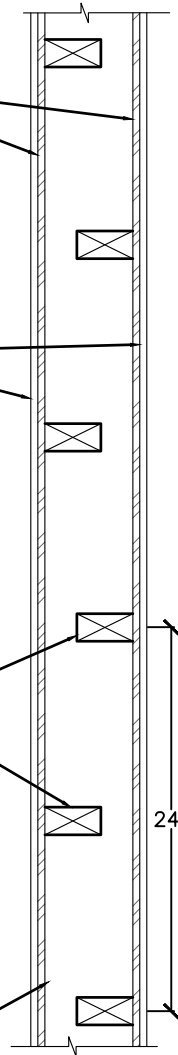


3/8" APA RATED SHEATHING APPLIED VERTICALLY WITH 6d COMMON NAILS SPACED 6" O.C. AT EDGES, 12" O.C. OTHER FRAMING. NAIL HEADS DIMPLED INTO PANEL.

1/2" GYPSUM WALLBOARD APPLIED VERTICALLY, JOINTS STAGGERED. NAIL TO FRAMING WITH 8d NAILS SPACED 12" O.C.; JOINTS TAPED.

2x4 STUDS SPACED 24" O.C. STAGGERED

2x6 PLATE TOP AND BOTTOM

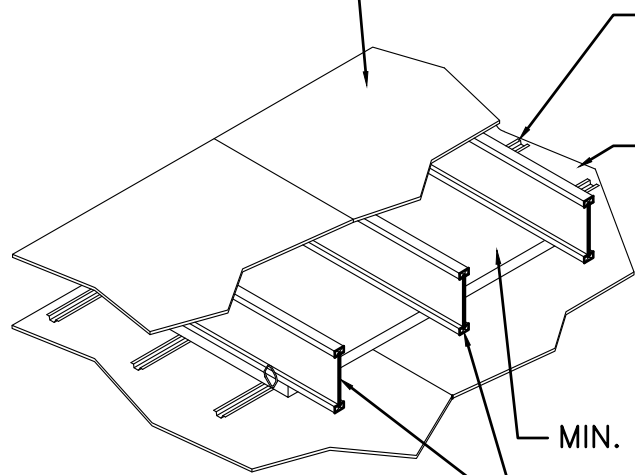


PLAN VIEW



NOISE-RESISTANT WALLS

MIN. 23/32" T&G  
APA STURD-I-FLOOR



MIN. 23/32" T&G  
APA STURD-I-FLOOR

0.019" GALVANIZED STEEL  
HAT-SHAPED FURRING  
CHANNELS MAX. 24" O.C.

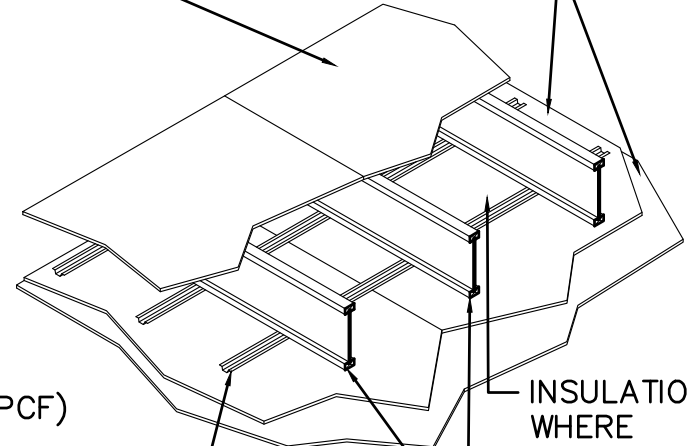
MIN. 1/2" TYPE C GYPSUM  
WALLBOARD TAPED

MIN. 1" MINERAL FIBER BATTS (6 PCF)

MIN. 9-1/4" WOOD I-JOISTS SPACED  
MAX. 24" O.C. WITH 1-1/2"x2-1/4" FLANGES

0.019" GALVANIZED STEEL  
RESILIENT CHANNELS MAX. 16" O.C.  
(24" O.C. WHEN JOISTS MAX. 16" O.C.)

TWO LAYERS 1/2"  
TYPE X GYPSUM  
WALLBOARD TAPED



INSULATION  
WHERE  
REQUIRED

MIN. 9-1/2" WOOD  
I-JOISTS SPACED  
MAX. 24" O.C. WITH  
1-5/16"x1-1/2"  
FLANGES

NOTES:

1. FOR ADDITIONAL DETAILS, SEE AWC DCA 3, ASSEMBLY WIJ-1.4 (WWW.AWC.ORG)
2. CONSTRUCTION ADHESIVES SHALL CONFORM TO APA SPECIFICATION AFG-01 OR ASTM D3498.
3. FOR ADDITIONAL INFORMATION AND PROPRIETARY NAMES, SEE LATEST UNDERWRITERS LABORATORIES (U.L.) FIRE RESISTANCE DIRECTORY.

**(A)** ONE-HOUR FIRE-RESISTIVE/CEILING ASSEMBLY

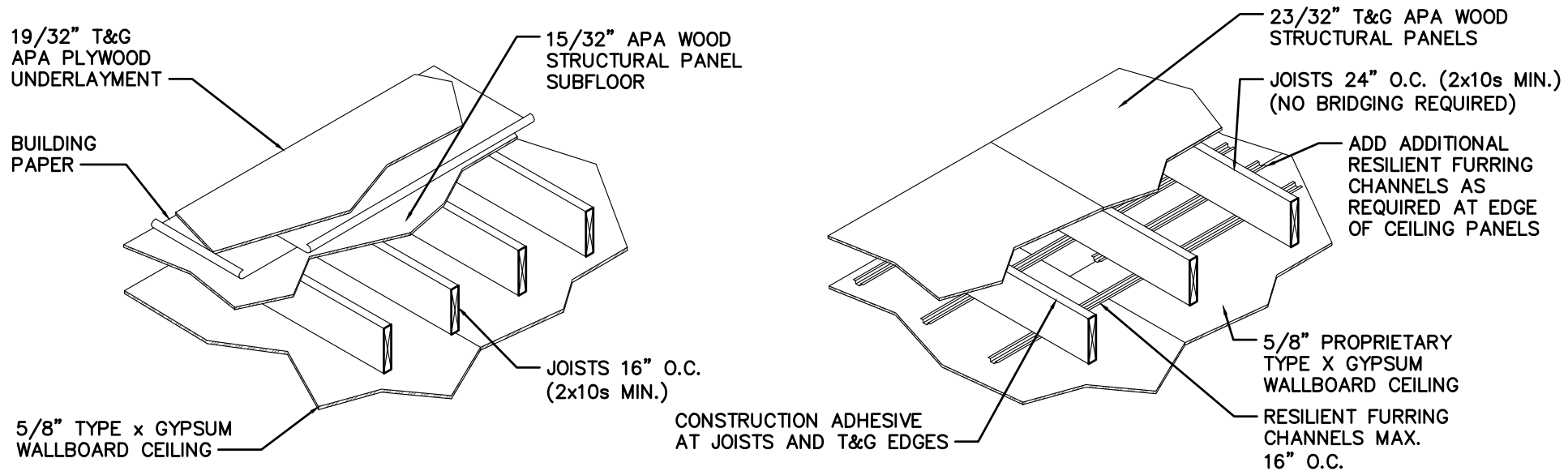
NOTES:

1. FOR ADDITIONAL DETAILS, SEE AWC DCA 3, ASSEMBLY WIJ-1.6 (WWW.AWC.ORG)
2. CONSTRUCTION ADHESIVES SHALL CONFORM TO APA SPECIFICATION AFG-01 OR ASTM D3498.
3. FOR ADDITIONAL INFORMATION AND PROPRIETARY NAMES, SEE LATEST UNDERWRITERS LABORATORIES (U.L.) FIRE RESISTANCE DIRECTORY.

**(B)** ONE-HOUR FIRE-RESISTIVE FLOOR/CEILING ASSEMBLY



ONE-HOUR COMB. FLOORCEIL I-JOISTS



**(A) TWO-LAYER FLOOR SYSTEM WITH LUMBER JOISTS**

**(B) SINGLE-LAYER FLOOR SYSTEM WITH LUMBER JOISTS**

**NOTES:**  
 1. CONSTRUCTION ADHESIVES SHALL CONFORM TO APA SPECIFICATION AFG-01 OR ASTM D3498.  
 2. FOR ADDITIONAL INFORMATION AND PROPRIETARY NAMES, SEE LATEST UNDERWRITERS LABORATORIES (U.L.) FIRE RESISTANCE DIRECTORY.

**NOTES TO DESIGNER:**

- SOME RATED ASSEMBLIES INCORPORATE PROPRIETARY PRODUCTS. WHEN DESIGNING AND SPECIFYING, CHECK THE UNDERWRITERS LABORATORIES INC. (U.L.) FIRE RESISTANCE DIRECTORY FOR COMPLETE DETAILS ON A PARTICULAR ASSEMBLY. A CHANGE IN DETAILS MAY AFFECT THE FIRE RESISTANCE OF THE ASSEMBLY.
- FOR DETAILS, SEE U.L. DESIGN NOS. L006, L201, L202, L206, L209, L210, L211 (2 HR), L212, L501, L502, L503, L505 (2HR), L507, L511 (2 HR), L512, L513, L514, L515, L516, L517, L519, L522, L523, L525, L526, L532(1-1/2 HR), L533, L535, L536 (2 HR), L537, L539, L540, L541 (2 HR), L545 AND L569. ALSO SEE U.L. DESIGN NOS. L524 WITH STEEL JOISTS SPACED 24" O.C., L521, L528, L529, AND L534 WITH WOOD TRUSSES SPACED 24" O.C., L549 WITH STEEL TRUSSES SPACED 48" O.C., AND L527 WITH STEEL JOISTS SPACED 24" O.C.
- FOR DETAILS, SEE U.L. DESIGN NO. L513. ALSO SEE U.L. DESIGN NOS. L504 FOR STRESSED-SKIN PANEL (5/8" APA RATED STURD-I-FLOOR OR SHEATHING PLYWOOD WITH JOISTS SPACED 12" O.C.), L507 FOR 5/8" CAT APA RATED STURD-I-FLOOR PLYWOOD WITH JOISTS SPACED 16" O.C., L508 FOR 1-1/8 CAT APA RATED STURD-I-FLOOR PLYWOOD WITH JOISTS SPACED 48" O.C., AND L539, L540 WITH JOISTS SPACED 16" OR 24" O.C. AND SEPARATE CEILING ASSEMBLY (FOR MODULAR HOUSING UNITS). ALSO SEE U.L. DESIGN NOS. L524 AND L543 WITH STEEL JOISTS SPACED 19.2" OR 24" O.C. (L543 WITH SEPARATE CEILING ASSEMBLY).
- SUBSTITUTION OF 1-1/8" APA RATED STURD-I-FLOOR 48"OC FOR THE COMBINATION OF SUBFLOOR, PAPER AND UNDERLAYMENT IS OFTEN ALLOWED. CHECK WITH LOCAL BUILDING OFFICIAL.
- MOST BUILDING CODES DO NOT REQUIRE THE TOP LAYER OF TWO-LAYER RATED ASSEMBLIES WHEN USED FOR ROOFS.
- TESTS HAVE SHOWN THAT SUBSTITUTION OF OSB OR COMPOSITE APA RATED SHEATHING SUBFLOOR AND APA RATED STURD-I-FLOOR UNDERLAYMENT FOR THE PLYWOOD PANELS IN RATED ASSEMBLIES WILL NOT JEOPARDIZE FIRE-RESISTANCE RATINGS. SUBSTITUTION IS BASED ON EQUIVALENT PANEL THICKNESS, EXCEPT THAT IN TWO-LAYER WOOD ASSEMBLIES, 7/16" OSB SUBFLOOR PANELS MAY BE USED IN PLACE OF 15/32" PLYWOOD SUBFLOOR PANELS.

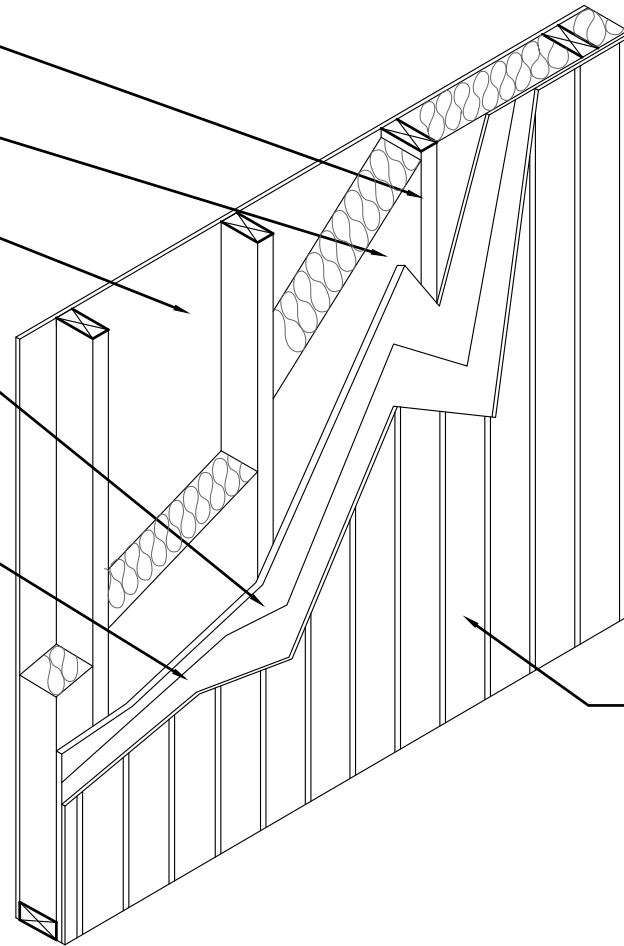
2x4 STUDS ALL 16"  
OR 24" O.C.

MINERAL OR GLASS FIBER  
INSULATION (OPTIONAL)

5/8" TYPE X GYPSUM  
WALLBOARD

5/8" TYPE X GYPSUM  
SHEATHING

BUILDING PAPER OR  
OTHER CODE-APPROVED  
WEATHER-RESISTIVE  
BARRIER



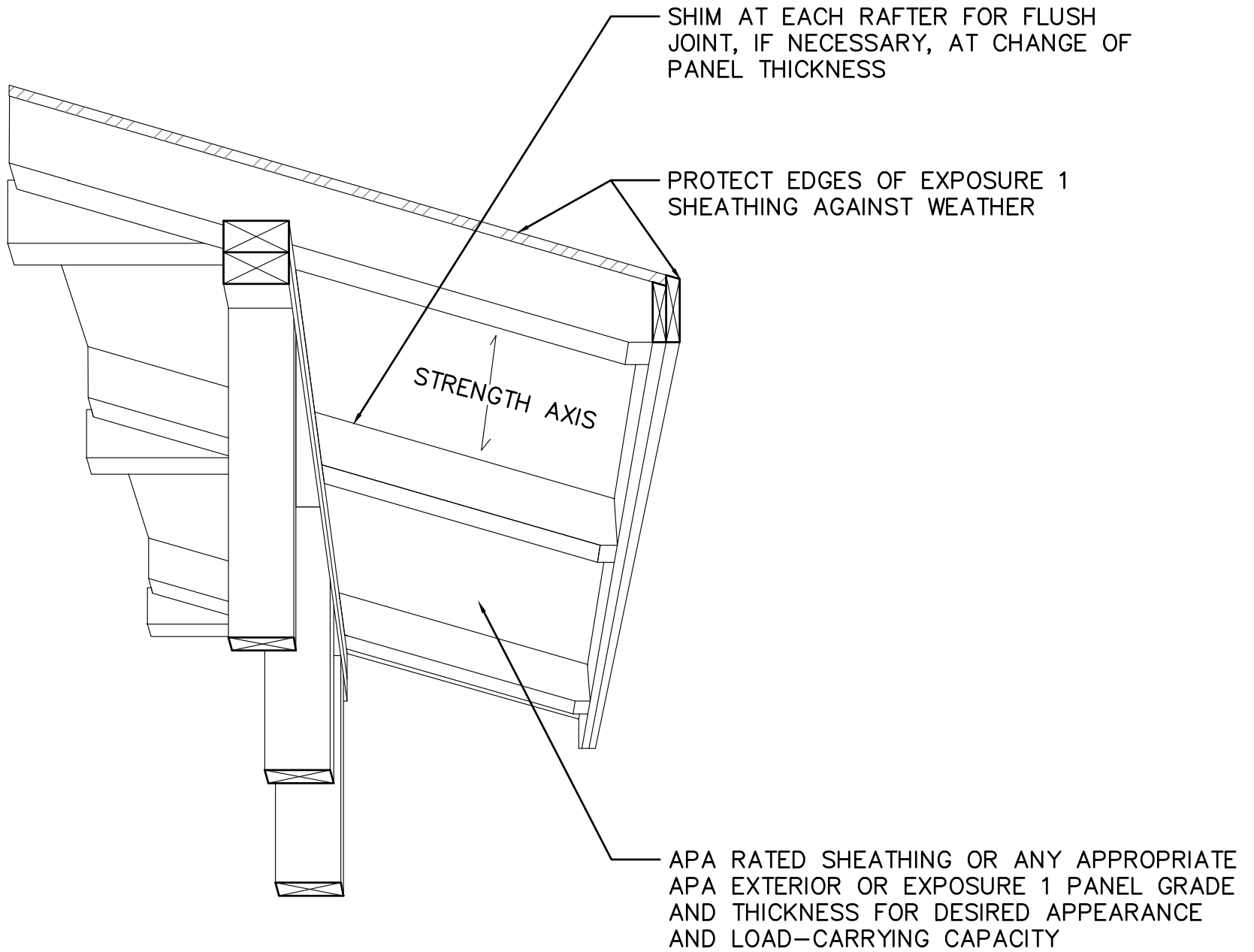
APA RATED SIDING 16" OR 24" O.C.  
(OR PANEL SHEATHING).  
PANEL SIDING SHALL MEET IRC  
REQUIREMENTS FOR WALL BRACING

NOTES:

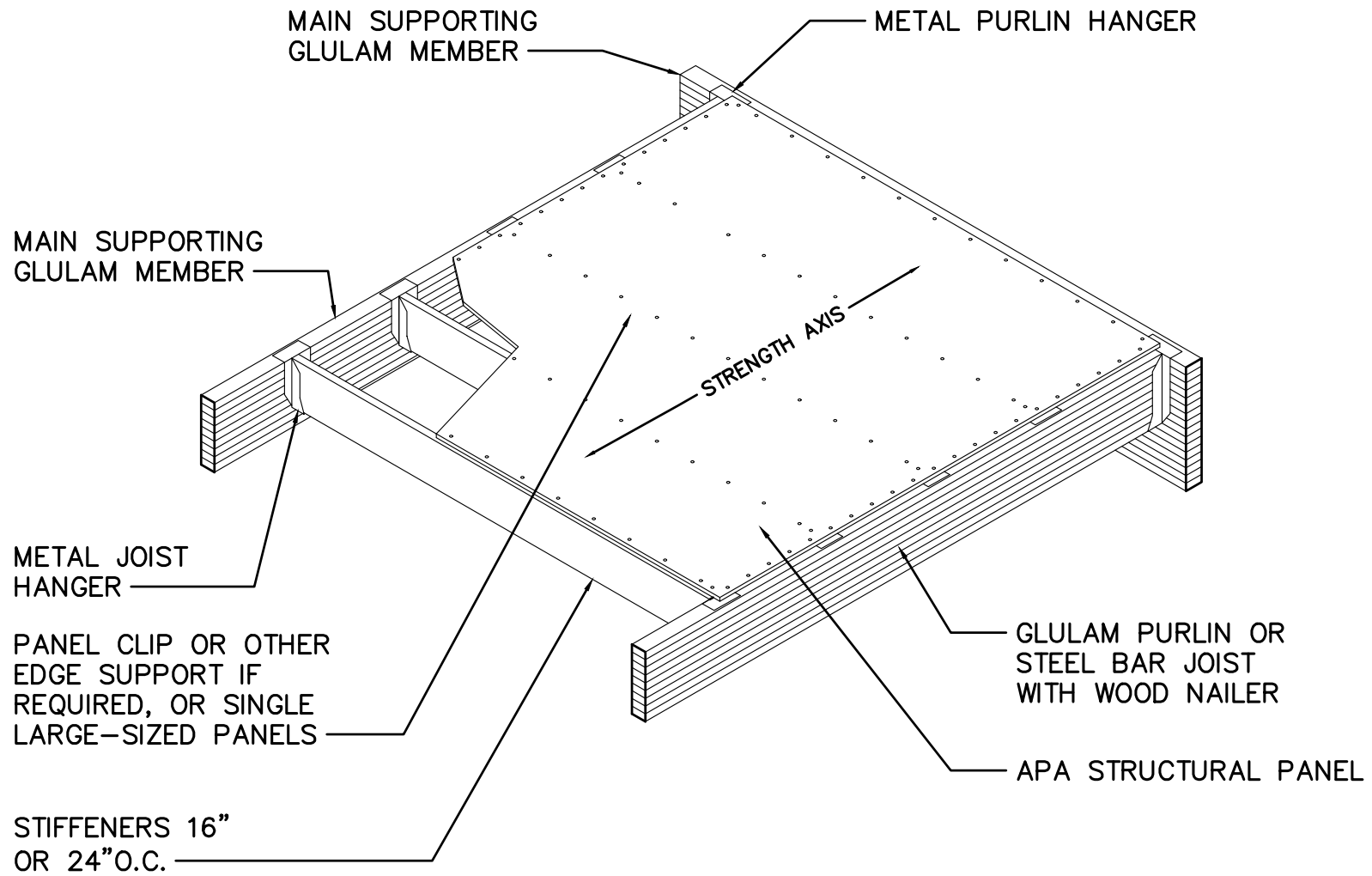
1. GENERIC, NON-PROPRIETARY ASSEMBLY BASED ON GA FILE NO. WP8105 LISTED IN GYPSUM ASSOCIATION FIRE RESISTANCE DESIGN MANUAL, REFERENCED IN THE MODEL BUILDING CODES. MINERAL OR GLASS FIBER BATT INSULATION (OPTIONAL).
2. EXTERIOR LAYER OF GYPSUM SHEATHING NOT REQUIRED UNDER THE INTERNATIONAL BUILDING CODE, WHEN SEPARATION IS GREATER THAN TEN FEET. FOR ADDITIONAL INFORMATION, SEE U.L. DESIGN NOS. U344 AND U356 IN U.L. FIRE RESISTANCE DIRECTORY.



ONE-HOUR EXT WALL

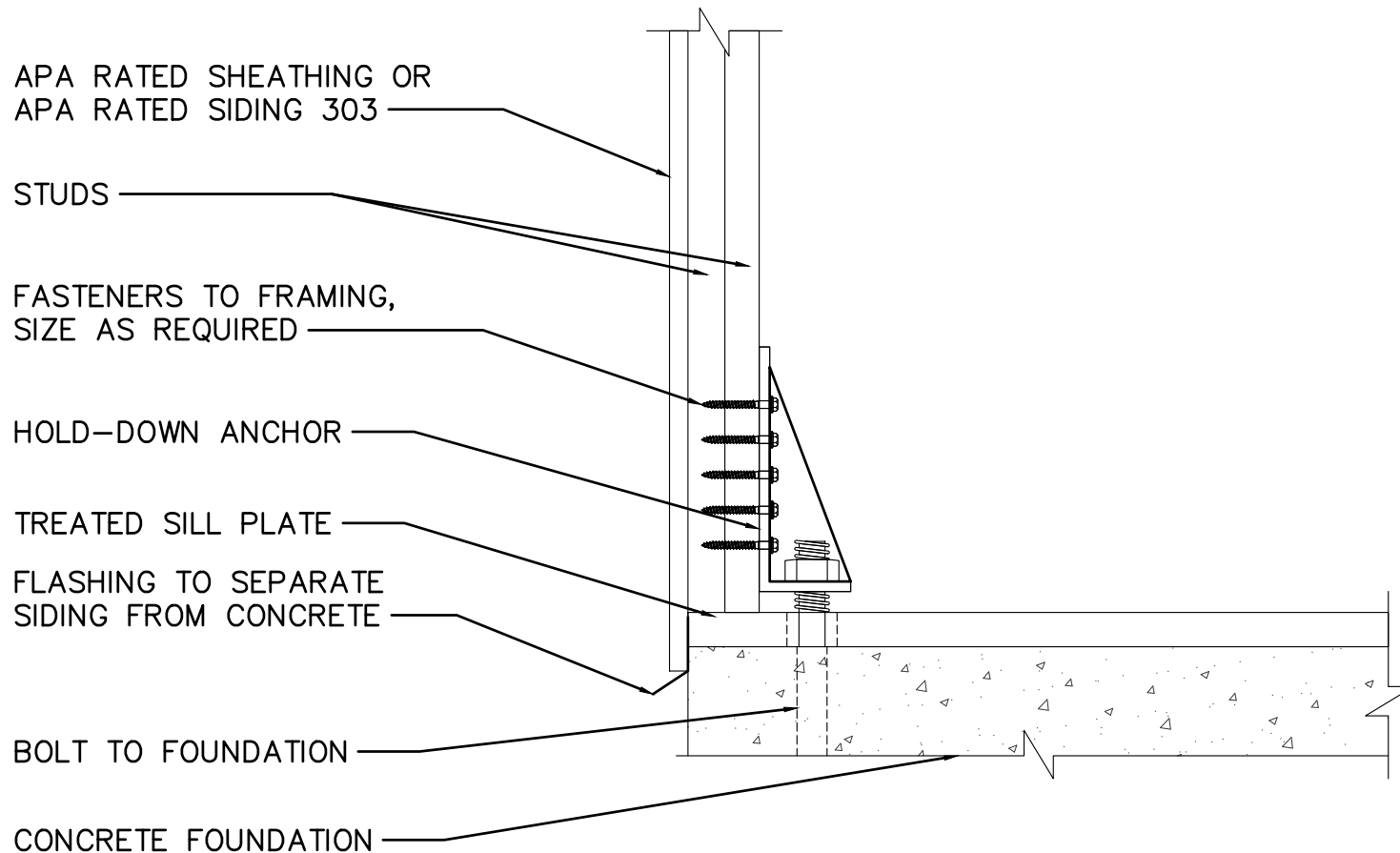


(EWG-31) OPEN SOFFIT



EWG-32

PREFRAMED ROOF PANEL PERP. TO SUPPORTS



NOTE TO DESIGNER:  
SHEAR WALL OVERTURNING MOMENTS MAY BE TRANSFERRED BY A FABRICATED STEEL BRACKET SUCH AS THIS.  
REGULAR FOUNDATION BOLTS MAY BE ALL THAT IS REQUIRED IN SOME CASES DEPENDING ON ENGINEERING ANALYSIS.

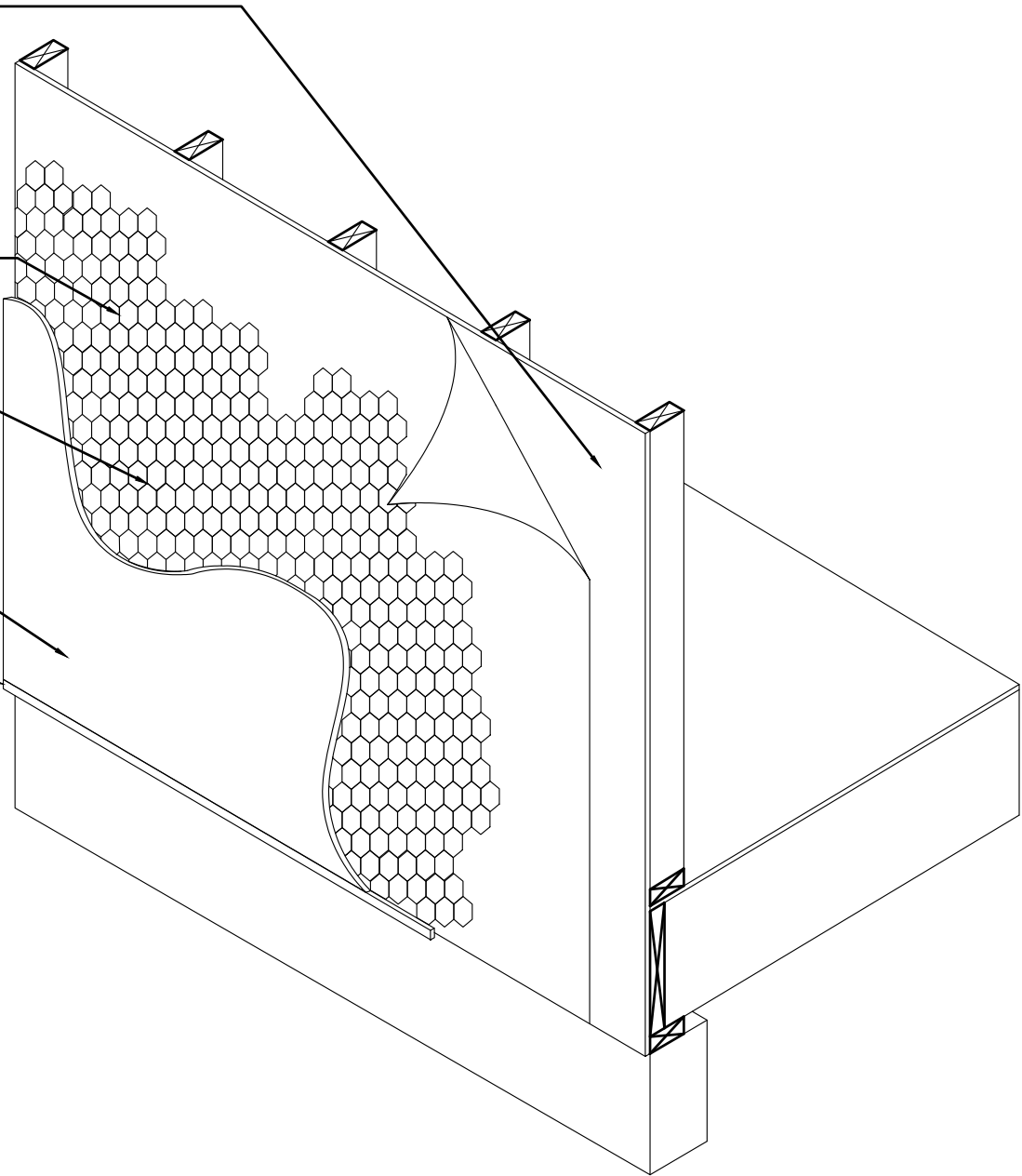
APA RATED SHEATHING

TWO LAYERS OF BUILDING PAPER OR OTHER CODE-RECOGNIZED WEATHER-RESISTIVE BARRIER

SELF-FURRING METAL LATH

STUCCO

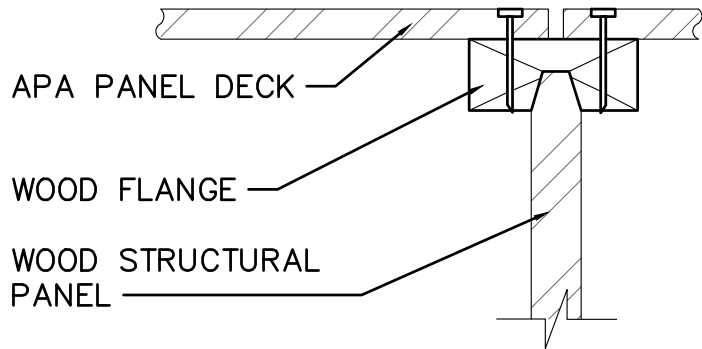
METAL BEAD



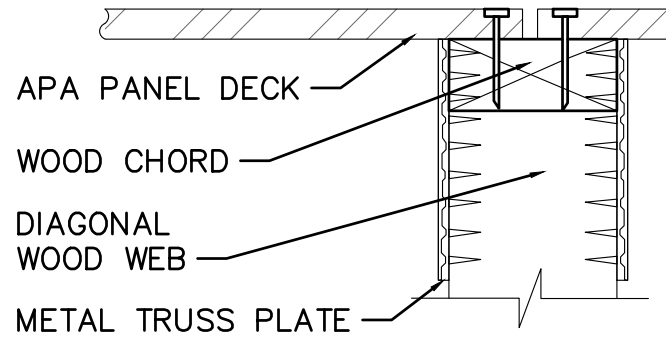
**NOTE:**  
INTERNATIONAL BUILDING CODE REQUIRES TWO LAYERS OF GRADE D PAPER FOR STUCCO OVER WOOD-BASED SHEATHING.



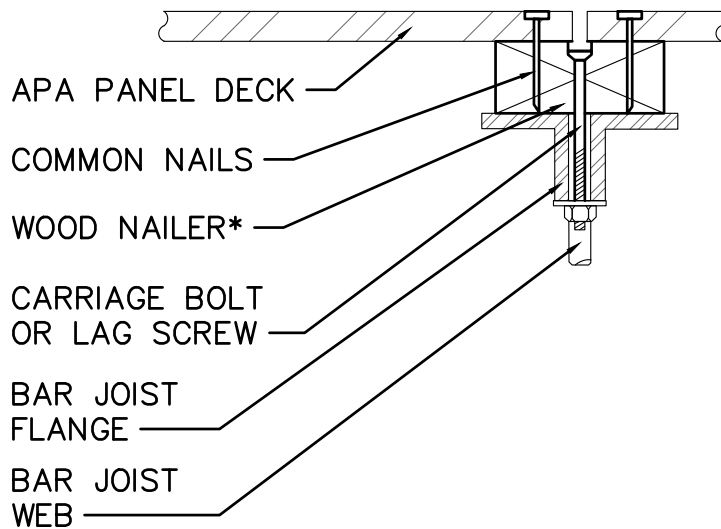
PANELS NAILED TO WOOD I-JOIST



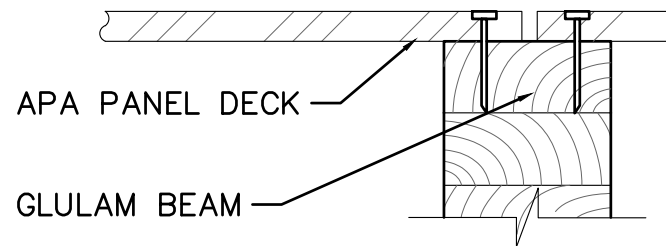
PANELS NAILED TO OPEN-WEB PARALLEL-CHORD WOOD TRUSS



PANELS NAILED TO NAILER BOLTED TO STEEL JOIST

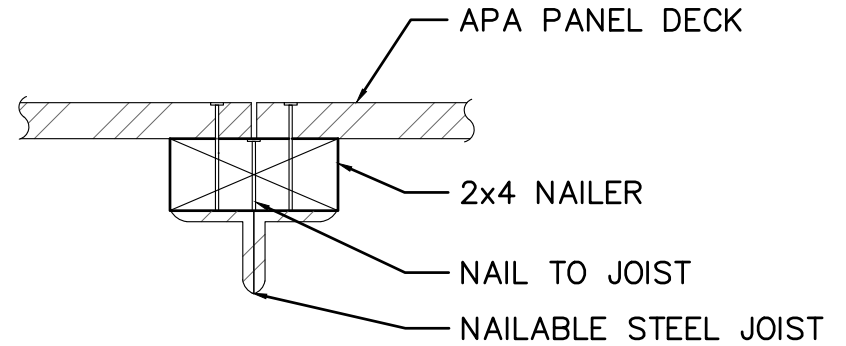
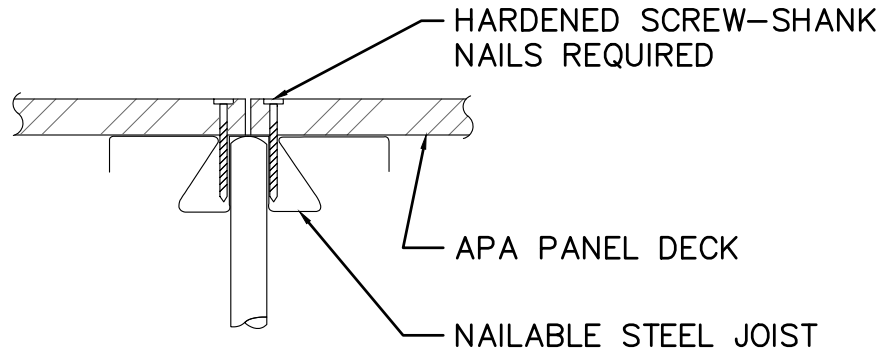


PANELS NAILED TO GLULAM BEAM

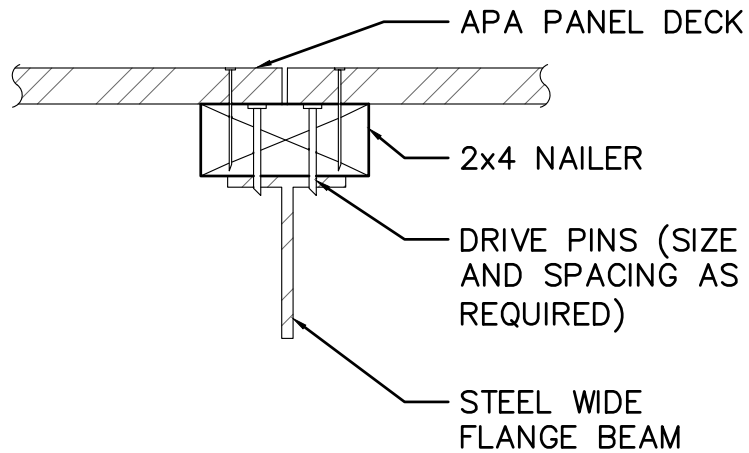


\* MAY BE INSTALLED ACROSS JOISTS (FOR NONMODULAR JOIST SPACING)

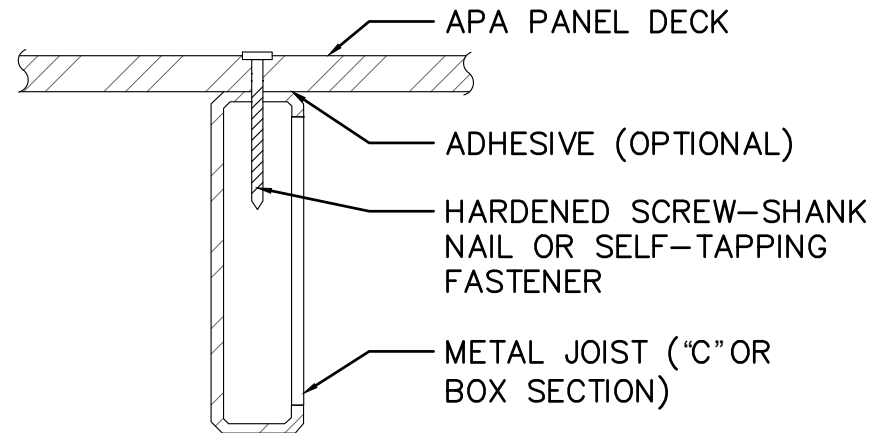
PANELS NAILED TO NAILABLE STEEL JOISTS



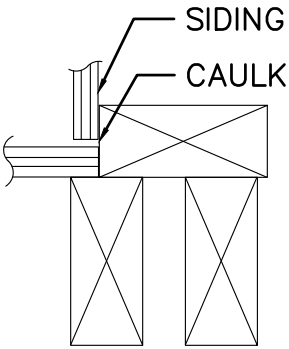
NAILER ANCHORED WITH POWER DRIVEN FASTENERS



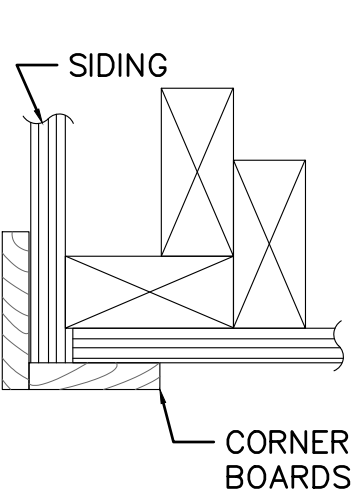
PANELS ATTACHED DIRECTLY TO FORMED STEEL JOIST



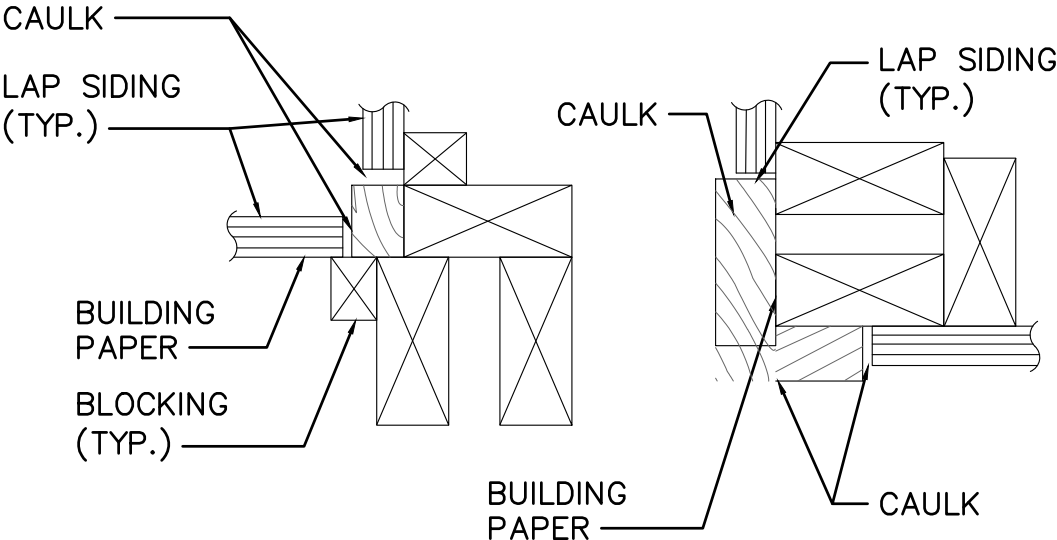
BUTT & CAULK



CORNER BOARD LAP JOINTS



LAP SIDING (APA STURD-I-WALL)

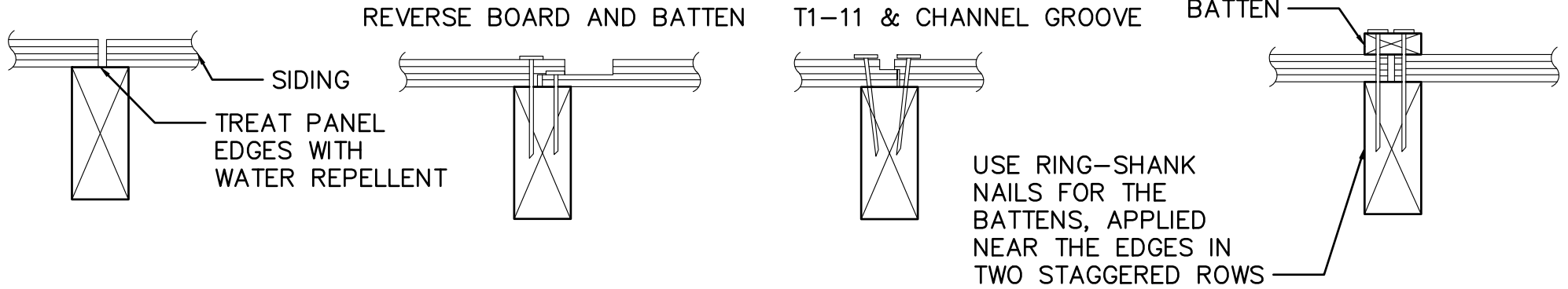


**EWG-37** VERTICAL INSIDE/OUTSIDE CORNER JOINTS

BUTT

SHIPLAP

VERTICAL BATTEN



NOTE:  
NAILING OF BOTH PANEL EDGES ALONG SHIPLAP JOINT IS RECOMMENDED. THE "DOUBLE NAILING" IS REQUIRED WHEN WALL SEGMENT MUST MEET WALL BRACING OR ENGINEERED SHEAR WALL REQUIREMENTS.