

# GENERAL NOTES AND DESIGN CRITERIA

FOLLOW LATEST BUILDING CODE: IRC 2015

DESIGN LOADS (MIN.):

FLOOR: 40 PSF LIVE LOAD  
10 PSF DEAD LOAD  
CEILING: 20 PSF LIVE LOAD  
10 PSF DEAD LOAD  
ROOF: 20 PSF LIVE LOAD  
10 PSF DEAD LOAD  
SLEEPING AREAS: 30 PSF LIVE LOAD  
ROOF DESIGN WIND SPEED: 115 MPH  
(TRUSSES: TC AND BC DEAD LOAD OF 10 PSF EACH)

SOIL BEARING ASSUMED CAPACITY: ASSUMED 1500 PSF  
LIVE LOADS, DEAD LOADS, WIND LOADS, SNOW LOADS, LATERAL LOADS, SEISMIC ZONING, AND ANY OTHER SPECIALTY LOADING WILL NEED TO BE CONFIRMED BEFORE CONSTRUCTION AND DEALT WITH ACCORDINGLY.

FRAMING MEMBERS:  
UNLESS OTHERWISE NOTED, ALL FRAMING LUMBER TO BE #2 OR BETTER.  
CONTRACTOR TO CONFIRM THE SIZE, SPACING, AND SPECIES OF ALL FRAMING AND STRUCTURAL MEMBERS.  
ALL EXTERIOR WALLS AND CEILING/ROOF ARE TO BE INSULATED BY CODE.  
ENGINEERED WOOD PRODUCTS TO BE ENGINEERED BY MANUFACTURER/SUPPLIER.  
TRUSSES TO BE ENGINEERING BY TRUSS MANUFACTURER/SUPPLIER.  
FOLLOW BRACING GUIDELINES SUBMITTED BY TRUSS MANUFACTURER.

CONCRETE AND FOUNDATIONS:  
ALL SLABS ON GRADE SHALL BE 3500 PSI MIN.  
ALL SLABS ON GRADE SHALL BEAR ON 4" COMPACTED GRANULAR FILL WITH 6X6 MIN. WELDED WIRE MESH (WWM).  
INTERIOR SLABS SHALL HAVE A 6 MIL. MIN. PLOTETHYLENE VAPOR BARRIER UNDERNEATH.  
PROVIDE PROPER EXPANSION AND CONTROL JOINTS.  
PROVIDE REINFORCING WHERE NEEDED ACCORDING TO LOCAL CODES, REQUIREMENTS, AND DESIGN.  
FOUNDATION WALLS ARE NOT TO BE BACKFILLED UNTIL STRUCTURAL FRAMING IS COMPLETE.  
VERIFY DEPTH OF FOOTINGS TO MAKE SURE IT IS BELOW FROST LINE.

STEEL:  
ALL STRUCTURAL STEEL TO COMPLY WITH ASTM STANDARDS AND SPECIFICATIONS.

SAFETY GLAZING IS REQUIRED PER CODE INCLUDING BUT NOT LIMITED TO THE FOLLOWING: GLAZING IN SWINGING DOORS EXCEPT JALOUSIES, GLAZING IN FIXED AND SLIDING PANEL DOORS, GLAZING IN STORM DOORS, GLAZING IN ALL UN-FRAMED DOORS, GLAZING IN DOORS AND ENCLOSURES FOR BATHTUBS AND SHOWERS WHOSE BOTTOM EXPOSED EDGE IS LESS THAN 60" ABOVE THE WALKING/STANDING SURFACE, GLAZING IN PANELS ADJACENT TO AND WITHIN 24" OF THE EDGE OF A SWINGING DOOR, GLAZING LESS THAN 18" ABOVE THE FLOOR, GLAZING IN RAILINGS, GLAZING IN FENCES OR WALLS ENCLOSING SWIMMING POOLS-HOT TUBS-SPAS, GLAZING IN STAIRWAYS-LANDINGS-RAMPS, GLAZING WITHIN 60" OF THE BOTTOM TREAD OF A STAIRWAY.

PER CODE, A MIN. NET CLEAR OPENING OF 5.7 SQ. FT. (24" HIGH X 20" WIDE) AND A MAX SILL HEIGHT OF 44" ABOVE FINISH FLOOR IS REQUIRED FOR ALL EMERGENCY ESCAPE AND RESCUE WINDOWS. THE WINDOW DIMENSIONS SHOWN ON THIS PLAN MAY VARY DEPENDING ON THE CHOSEN MANUFACTURER. CONTRACTOR MUST VERIFY THE CHOSEN WINDOWS MEET THE EGRESS REQUIREMENTS. PROVIDE WINDOW WELLS AS REQUIRED. COMPLIANCE TO EMERGENCY EGRESS IS REQUIRED.

COMPLIANCE TO SECTION R313 FOR SMOKE & CO2 DETECTORS IS REQUIRED. SMOKE DETECTORS SHALL BE LISTED IN ACCORDANCE WITH CURRENT UL AND HARDWIRED, INTERCONNECTED, AND ARC FAULT PROTECTED WITH A BATTERY BACKUP.

GARAGE WALLS ARE TO BE COVERED PER CODE. TYPICAL GARAGE WALLS AND ATTIC SPACE/CEILING ASSEMBLIES ARE TO BE COVERED WITH A MIN. 1/2" GYPSUM WALLBOARD. GARAGE RESIDENCE SEPARATION WALLS AND FLOOR/CEILING ASSEMBLIES ARE TO BE COVERED WITH A MIN. 5/8" TYPE "X" GYPSUM WALLBOARD. DOORS SEPARATING THE GARAGE AND RESIDENCE ARE TO BE MIN. 20-MINUTE FIRE RATED OR SOLID WOOD, NOT LESS THAN 1-3/8" THICK.

# 1308 N 38th ST. (NEW DETACHED SINGLE FAMILY)

LOCATION:  
RICHMOND, VA

DESIGNER: NICK MEDLIN  
POSITION: OWNER / OPERATOR  
179 MURIEL DR. HEATHSVILLE VA 22473

## DRAWING INDEX

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## BUILDING INFORMATION

1ST FL. HEATED S.F.	912
2ND FL. HEATED S.F.	912

COMPLIANCE IS REQUIRED FOR EXIT DOOR STAIRS, RAMPS, AND LANDINGS. THERE SHALL BE A FLOOR OR LANDING ON EACH SIDE OF EACH EXT. DOOR EXCEPT WHERE A STAIRWAY OF TWO OR FEWER RISERS IS LOCATED. THE WIDTH OF EACH LANDING SHALL NOT BE LESS THAN THE WIDTH OF THE DOOR SERVED. EVERY LANDING SHALL HAVE A MIN. OF 36" IN DIRECTION OF TRAVEL.

COMPLIANCE IS REQUIRED FOR HANDRAILS (TYPE 1) AND GUARDRAILS. ALL INT. AND EXT. RAILINGS ARE TO BE A CONTINUOUS AND MIN. 36" IN HEIGHT, BE ABLE TO WITHSTAND 200 LBS OF FORCE, AND NOT ALLOW A SPHERE GREATER THAN 4' IN DIAMETER TO PASS THROUGH. GUARDRAILS ARE TO BE 36" HIGH WITH MAX SPACING BETWEEN PICKETS OF LESS THAN 4". HANDRAILS ARE TO BE BETWEEN 34"-36" HIGH WITH MAX SPACING BETWEEN PICKETS NOT LESS THAN 4".

DRAFT-STOPPING IS REQUIRED PER CODE. WHEN THERE IS USABLE SPACE BOTH ABOVE AND BELOW THE CONCEALED SPACE OF A FLOOR/CEILING ASSEMBLY, DRAFT-STOPS SHALL BE INSTALLED SO THAT THE CONCEALED SPACE DOES NOT EXCEED 1000 SF. DRAFT-STOPPING SHALL BE INSTALLED SO AS TO DIVIDE THE SPACE EVENLY. DRAFT-STOPPING IS REQUIRED IN SUSPENDED CEILINGS UNDER THE FLOOR SYSTEM AND WHEN THE FLOOR FRAMING IS CONSTRUCTED OF TRUSS TYPE OPEN WEB OR PERFORATED MEMBERS.

FIRE-BLOCKING IS REQUIRED. FIRE BLOCKING SHALL BE PROVIDED TO CUT OFF ALL CONCEALED DRAFT OPENINGS (VERTICAL & HORIZONTAL) AND FORM AN EFFECTIVE FIRE BARRIER BETWEEN STORIES.

1308 N 38TH ST.

RIVER MILL DEVELOPMENT  
RIVERMILLDEVELOPMENT@GMAIL.COM  
PHONE: (434) 774-4535

### REVISION NOTES

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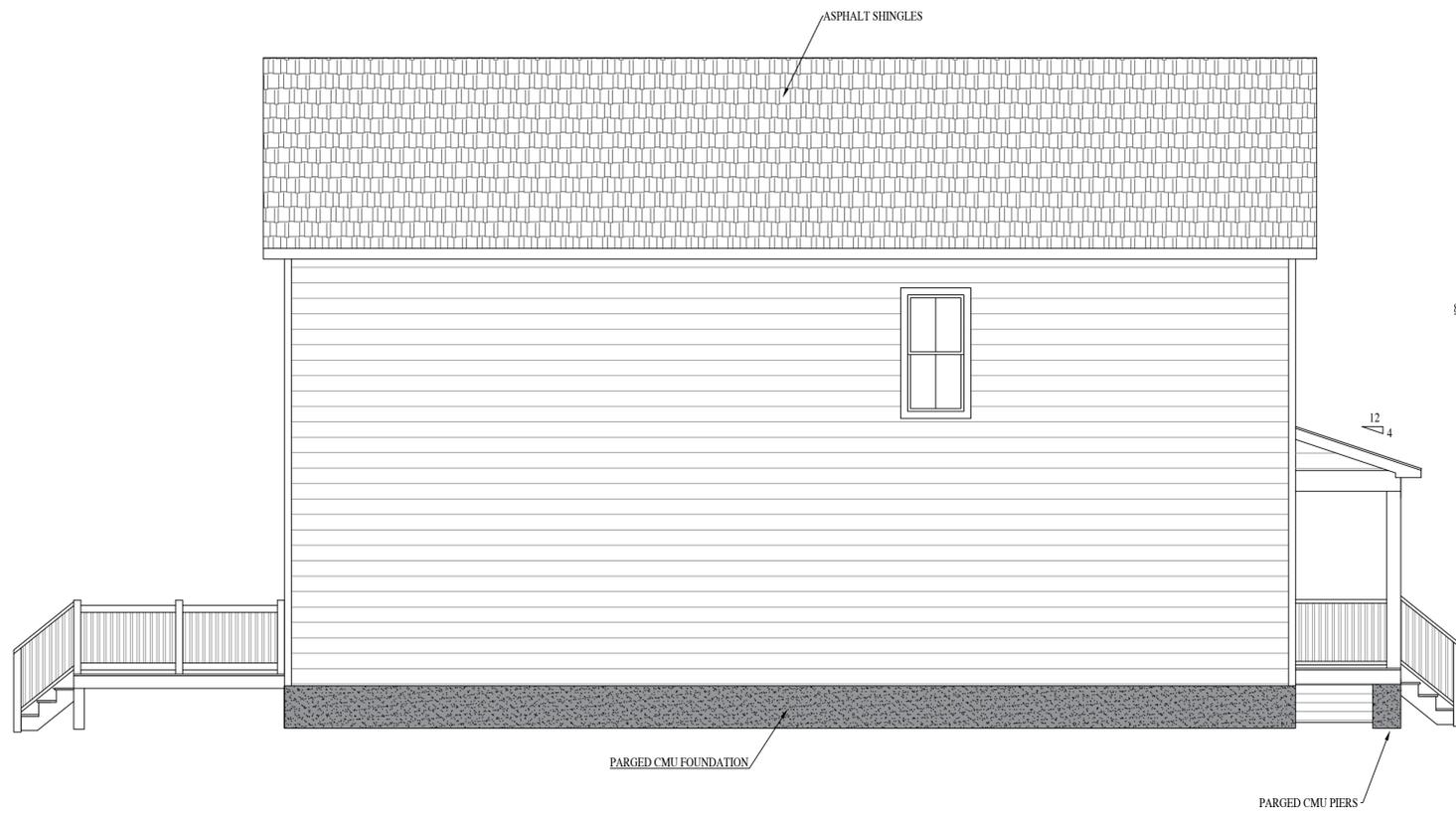
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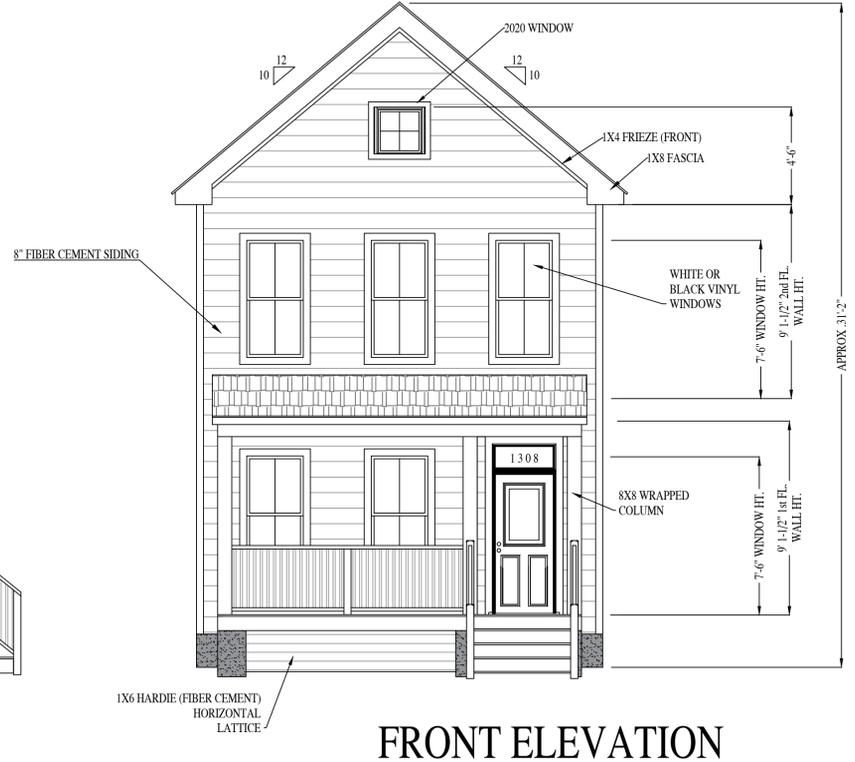
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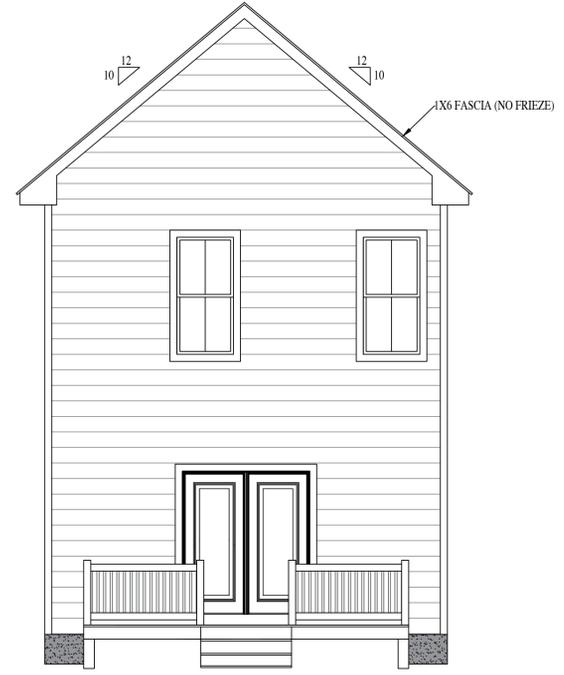




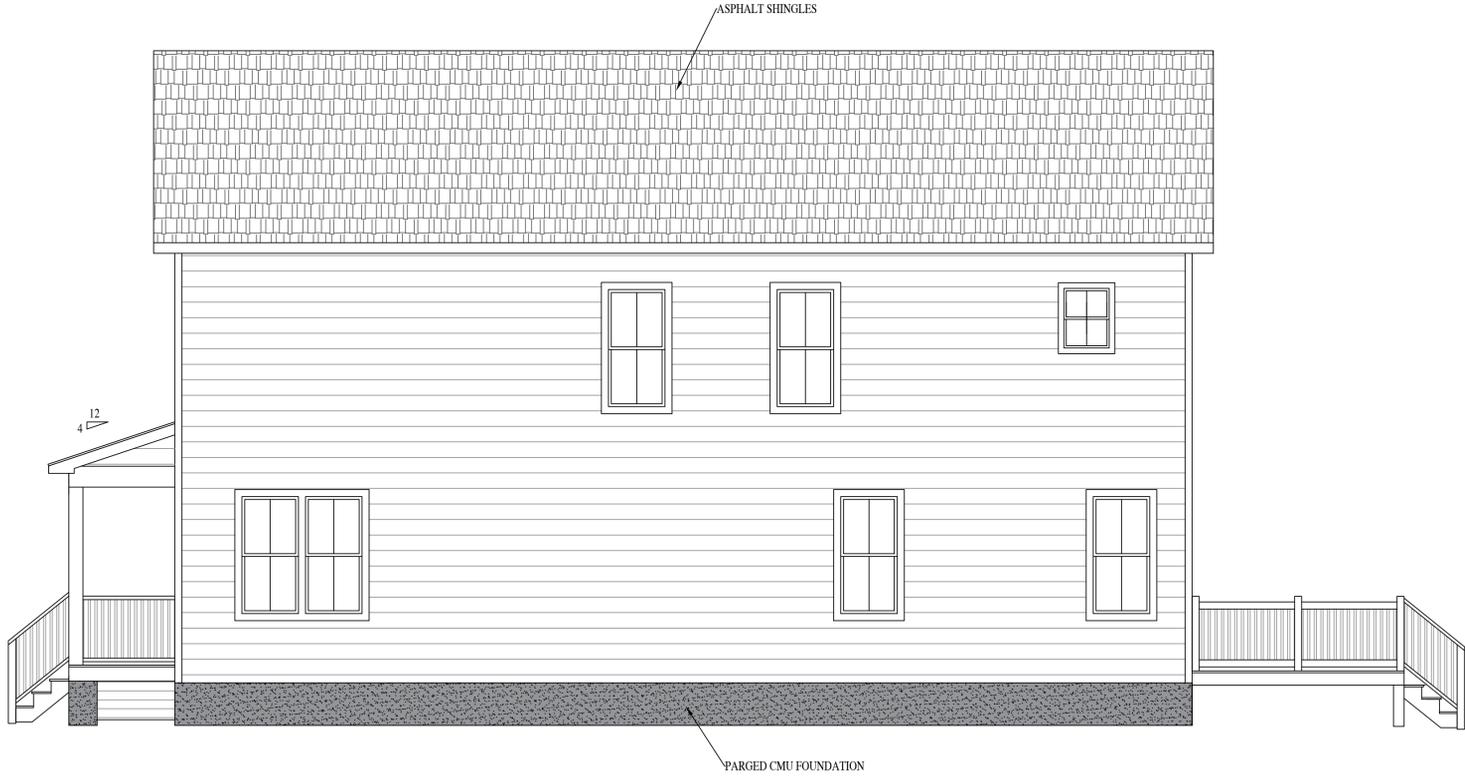
**LEFT ELEVATION**



**FRONT ELEVATION**



**REAR ELEVATION**



**RIGHT ELEVATION**

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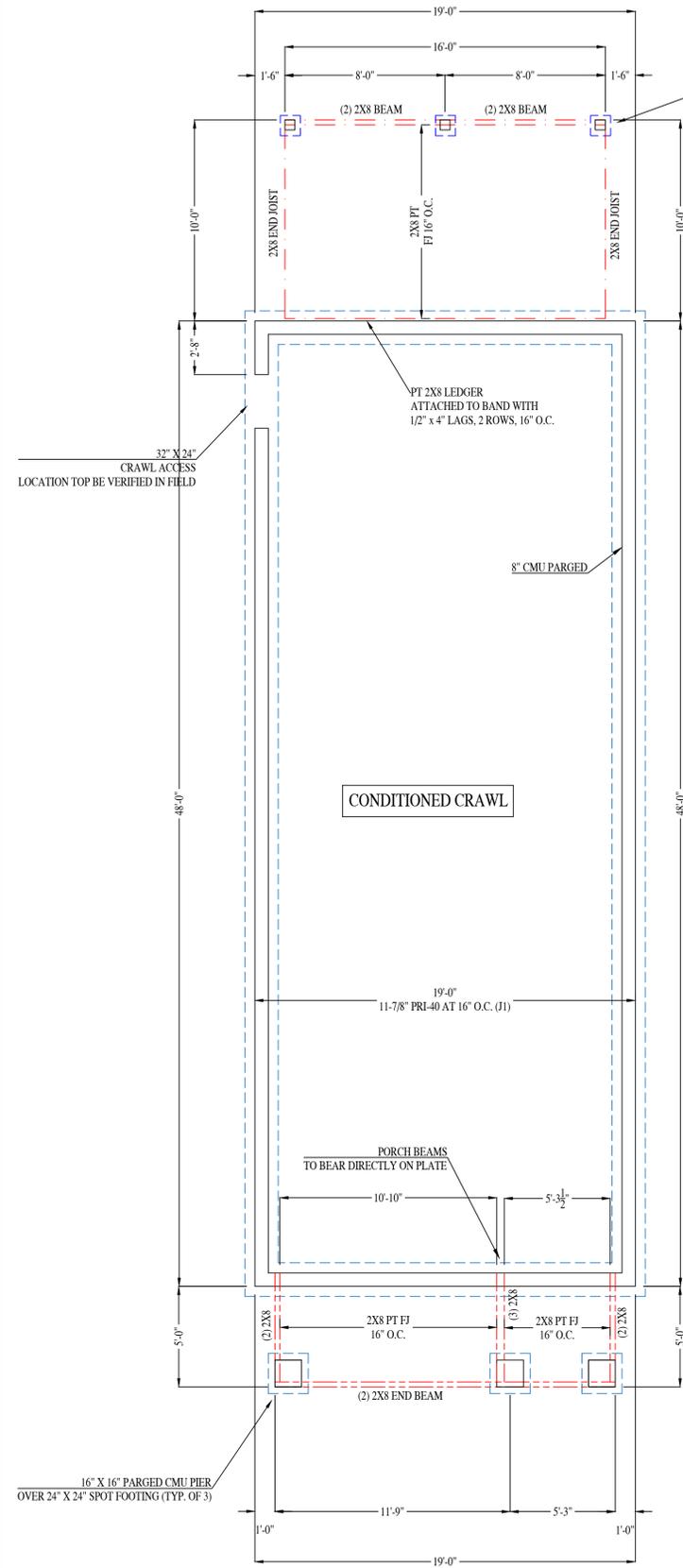
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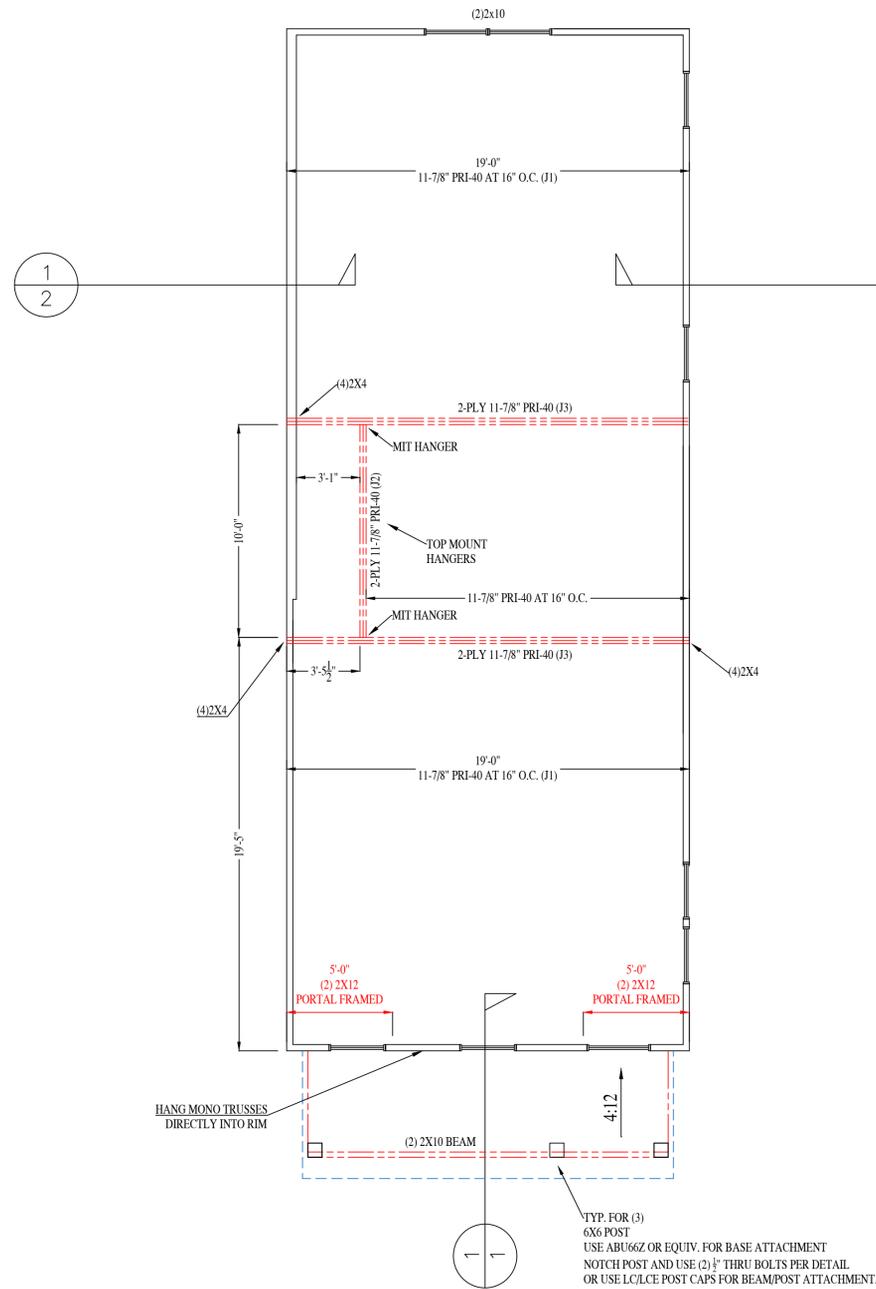
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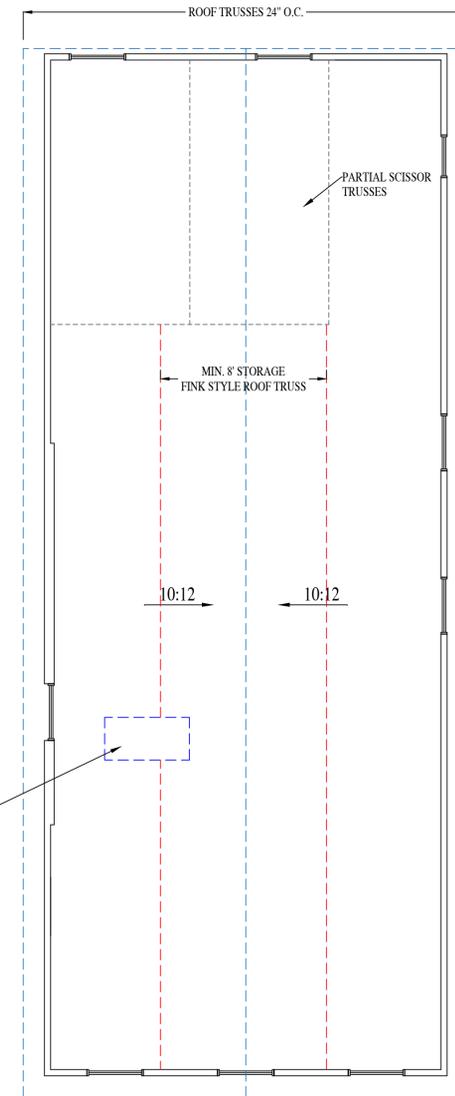
**FOUNDATION PLAN**  
VERIFY SOIL BEARING CAPACITY.

TYP. FOR (3)  
6X6 POST  
NOTCH POST AND USE (2) 1/2" THRU BOLTS PER DETAIL  
OR USE L/C/LCE POST CAPS FOR BEAM/POST ATTACHMENT.



**SECOND FLOOR FRAMING**

TYP. FOR (3)  
6X6 POST  
USE ABU66Z OR EQUIV. FOR BASE ATTACHMENT  
NOTCH POST AND USE (2) 1/2" THRU BOLTS PER DETAIL  
OR USE L/C/LCE POST CAPS FOR BEAM/POST ATTACHMENT.



**ROOF PLAN**

UPPER ROOF VENTING:  
836 S.F. TOTAL - 1/150 REQUIRED  
803 S. INCHES REQUIRED

ALL SINGLE WINDOW AND DOOR HEADERS  
TO BE (2) 2X8 MIN. UNLESS OTHERWISE NOTED.

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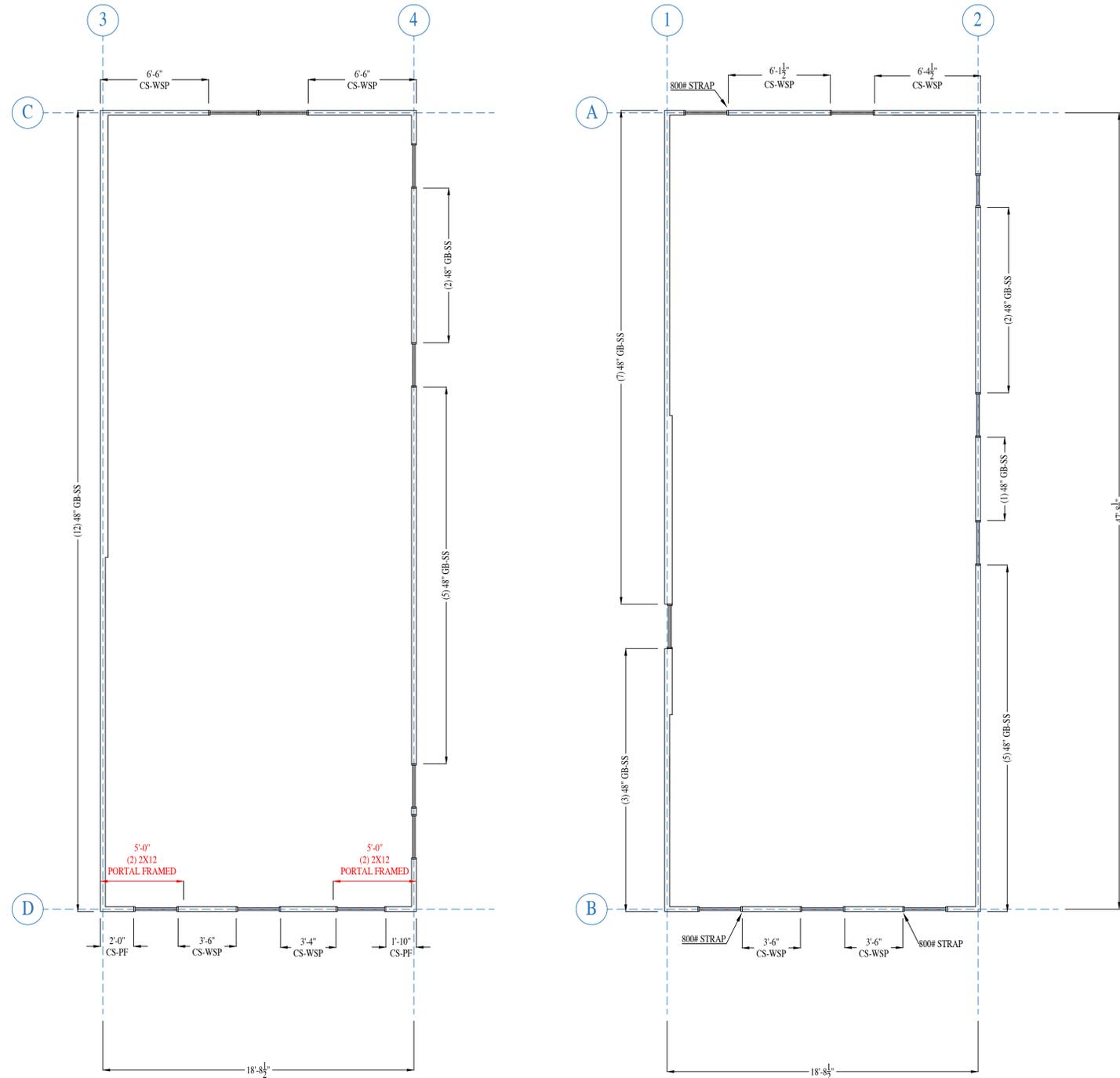
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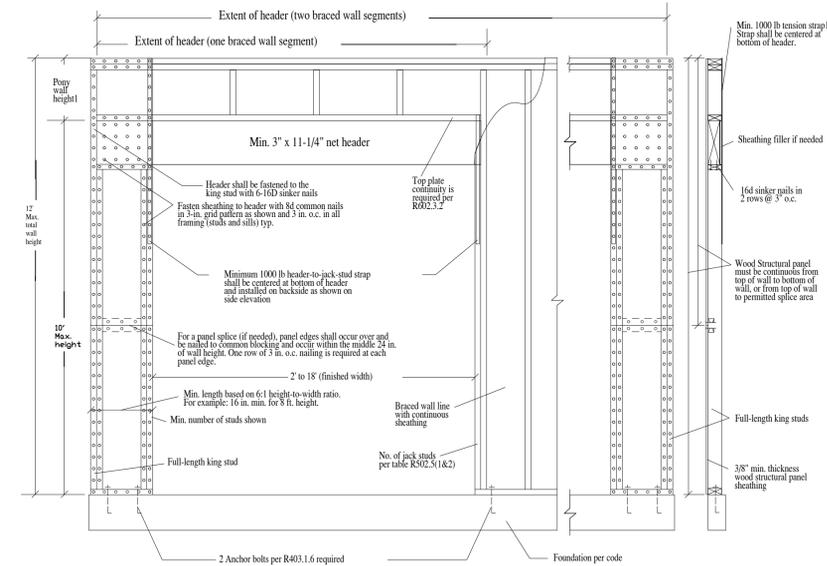
# NARROW WALL BRACING SECTION



1ST FL. WALL BRACING

2ND FL. WALL BRACING

ALL WALL BRACING IS CS-WSP UNLESS NOTED OTHERWISE.  
CS-PF IS 1.5X ACTUAL PER IRC 2015



Ultimate Wind Speed (mph)	115																
BWL Designation	1		2		A		B		C		D		3		4		
No. of Floors above BWL	0		0		0		0		1		1		1		1		
BWP Method	GB		GB		CS-WSP		CS-WSP		CS-WSP		CS-WSP		GB		GB		
Average BWL Spacing (ft)	19		19		48		48		48		48		19		19		
Tabular Requirement (ft)	6.20		6.20		7.20		7.20		13.50		13.50		11.95		11.95		
Adjustments	Exposure	B	1.00	B	1.00	B	1.00	B	1.00	B	1.00	B	1.00	B	1.00	B	1.00
	Eave-to-Ridge Ht. (ft)	9.00	0.94	9.00	0.94	9.00	0.94	9.00	0.94	9.00	0.97	9.00	0.97	9.00	0.97	9.00	0.97
	Max. Wall Ht. (ft)	9.00	0.95	9.00	0.95	9.00	0.95	9.00	0.95	9.00	0.95	9.00	0.95	9.00	0.95	9.00	0.95
	No. of BWLs	2	1.00	2	1.00	2	1.00	2	1.00	2	1.00	2	1.00	2	1.00	2	1.00
	Omit Interior Finish?	No	1.00	No	1.00	No	1.00	No	1.00	No	1.00	No	1.00	No	1.00	No	1.00
	Added Hold-downs?	No	1.00	No	1.00	No	1.00	No	1.00	No	1.00	No	1.00	No	1.00	No	1.00
	Joints Blocked?	Yes	1.00	Yes	1.00	Yes	1.00	Yes	1.00	Yes	1.00	Yes	1.00	Yes	1.00	Yes	1.00
Fasteners @ 4' o.c.?	No	1.00	No	1.00	No	1.00	No	1.00	No	1.00	No	1.00	No	1.00	No	1.00	
Required BWP Length (ft)	5.54		5.54		6.43		6.43		12.44		12.44		11.01		11.01		
Actual BWPs	Contributing Length (ft)	BWP Method	Length	Method	Length	Method	Length	Method	Length	Method	Length	Method	Length	Method	Length	Method	Length
		1	GB (ss)	14.00	GB (ss)	4.00	CS-WSP	6.10	CS-WSP	3.50	CS-WSP	6.50	CS-PF	3.00	GB (ss)	24.00	GB (ss)
	2	GB (ss)	6.00	GB (ss)	2.00	CS-WSP	6.33	CS-WSP	3.50	CS-WSP	6.50	CS-WSP	3.50			GB (ss)	10.00
	3			GB (ss)	10.00							CS-WSP	3.33				
	4											CS-PF	2.75				
	5																
	6																
7																	
Actual BWP Length (ft)	20.00		16.00		12.43		7.00		13.00		12.58		24.00		14.00		
Actual ≥ Required?	PASS		PASS		PASS		PASS		PASS		PASS		PASS		PASS		
BWPs ≤ 20' Apart?	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes		
≥ 2 Panels in BWL?	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes		
BWP 10' from Ends?	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes		
Continuous Sheathing	End 1	End 2	End 1	End 2	End 1	End 2	End 1	End 2	End 1	End 2	End 1	End 2	End 1	End 2	End 1	End 2	
End Conditions	1	1	1	1	5	1	5	5	1	1	1	1	1	1	1	1	
BWL Compliance	PASS		PASS		PASS		PASS		PASS		PASS		PASS		PASS		

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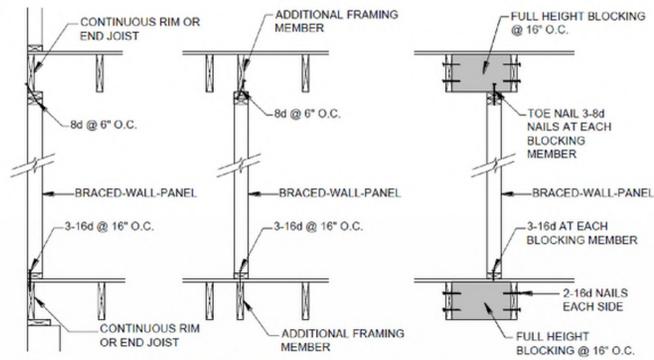
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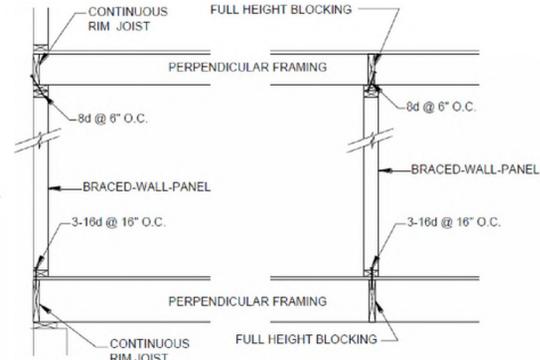
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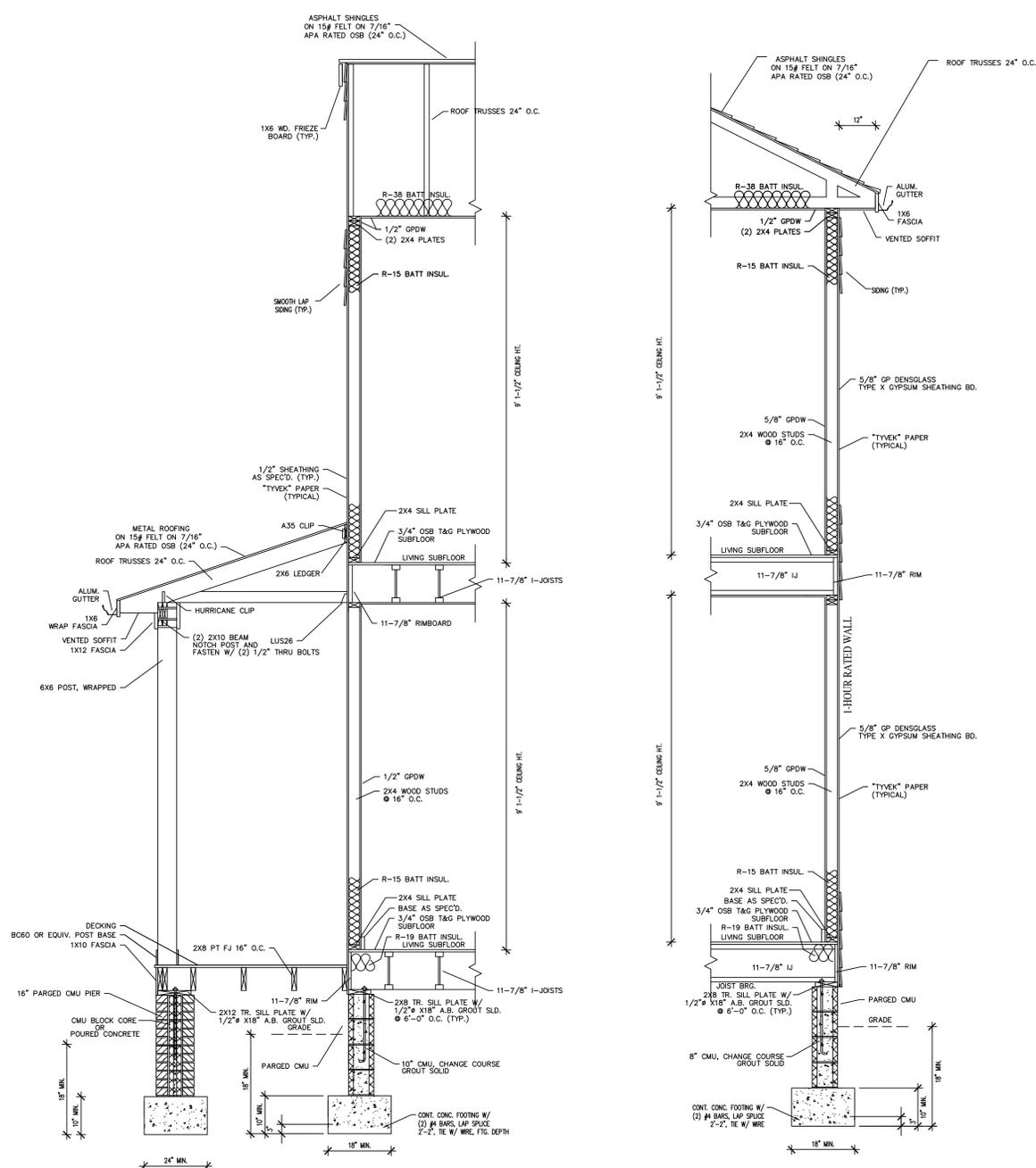
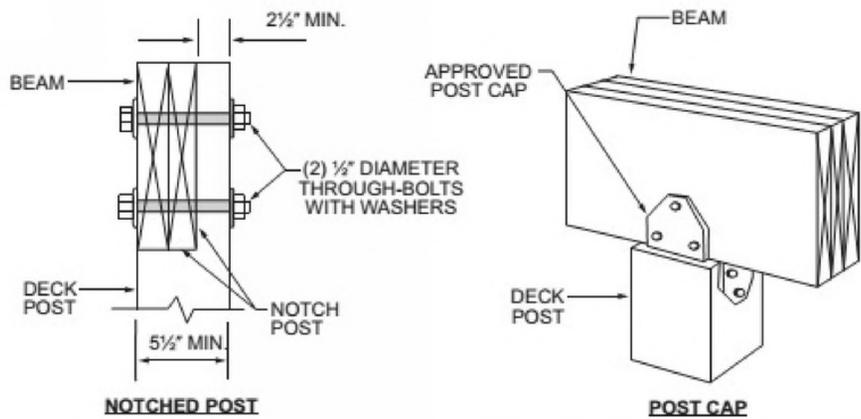
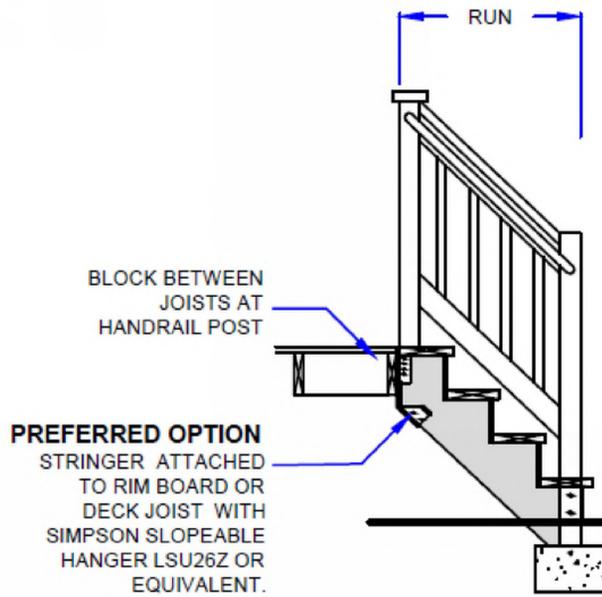




**FIGURE 23: BRACED-WALL-PANEL CONNECTION WHEN PARALLEL TO FLOOR/CEILING FRAMING**



**FIGURE 22: BRACED-WALL-PANEL CONNECTION WHEN PERPENDICULAR TO FLOOR/CEILING FRAMING**



**TYP. WALL SECTION FRONT WALL**  
**1 HR. RATED SIDE WALL**

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D1.0

