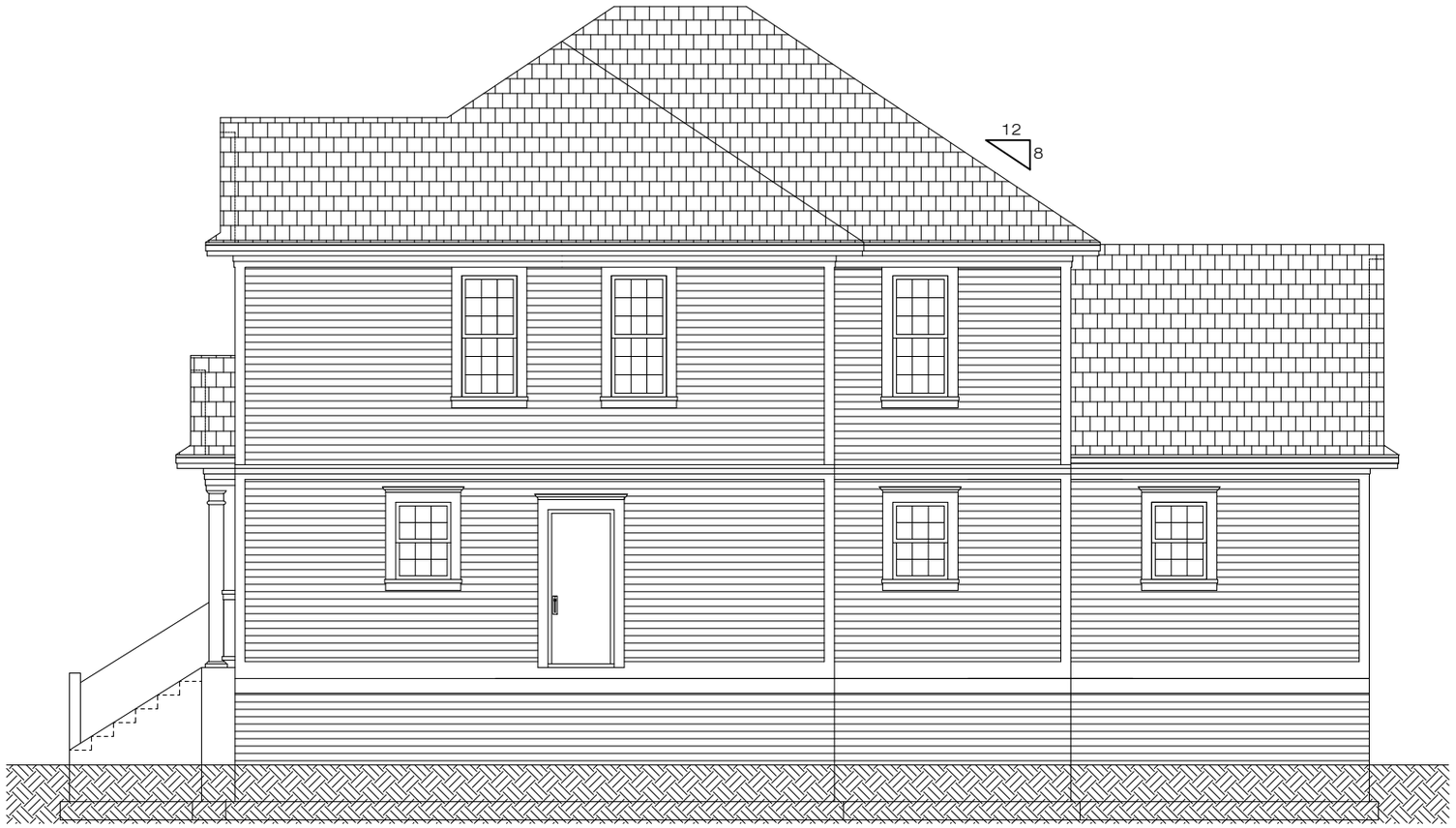
8:12 Pitch Main, Front and Sides
9'-1' Main Walls 8'-1' Second Walls 4' Crawl Space Foundation Walls Garage to Match Main TYP

East Elevation



West Elevation

Elevations

Scale: 1/4" & 1/8" =1'-0" on 36" x 24" Paper
Scale: 1/8" & 1/16"=1'-0" on 17" x 11" Paper

8:12 Pitch Main, Front and Sides
9'-1' Main Walls 8'-1' Second Walls 4' Crawl Space Foundation Walls Garage to Match Main TYP

North Elevation

South Elevation

Elevations

Scale: 1/4" & 1/8" =1'-0" on 36" x 24" Paper
Scale: 1/8" & 1/16"=1'-0" on 17" x 11" Paper

9'-1' Main Walls
8'-1' Second Walls
4' Crawl Space Foundation Walls
Garage to Match Main TYP

Header Notes:

Headers 4' or less use 1 Ply 9.50 or 2 Ply 2x10 Dim. Lumber
Headers 6' or less use 2 Ply 9.50
Headers 8' or less use 3 Ply 9.50 or 2 Ply 11.88 ML
Headers 10' or less use 3 Ply 11.88 or 2 Ply 14.00 ML
Headers 10' or more refer to TJXpert Layout

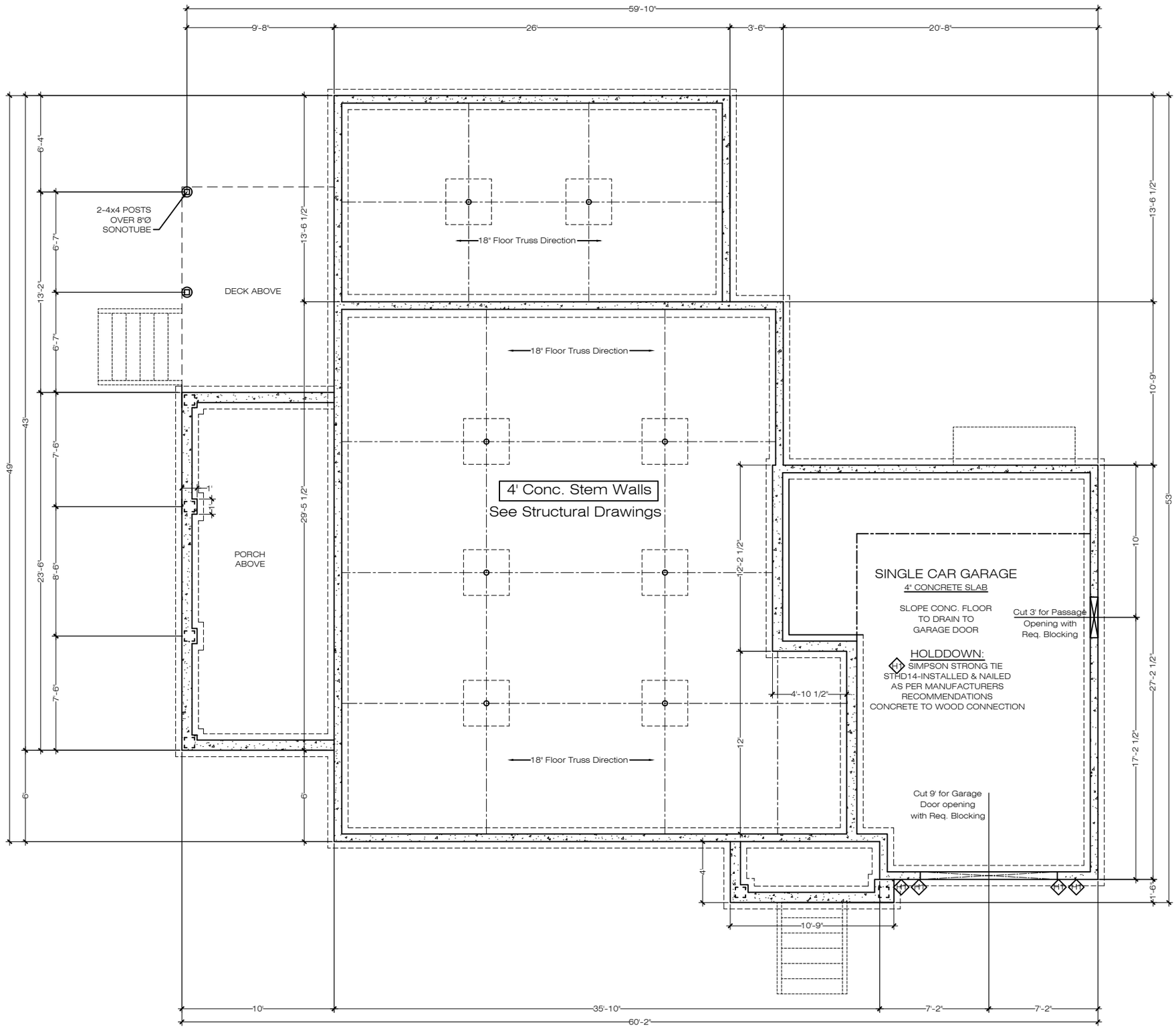
Ventilation R408.1

The under-floor space between the bottom of the floor joists and the earth under any building (except space occupied by a basement) shall have ventilation openings through foundation walls or exterior walls. The minimum net area of ventilation opening shall not be less than 1 s/f for each 150 s/f of under floor space area, unless the ground surface is covered by a Class 1 vapor retarder material. If the vapor retarder is used the min. net area of ventilation openings shall not be less than 1 s/f for each 1500 s/f.
One such vent shall be within 3' of each corner of building.

Foundation Wall System:

Ⓖ

2x6 Treated Sill Plate
over Foam Sill Sealer
with ½" Anchor Bolts @ 72" O.C. 10" Long, 7" Embedded
Max. 12" from all Corners or Splices
Concrete Wall Greater than 9' need to have an Architects or Engineer Seal 8' & under (1) Horiz. Bar in top 12" and one at mid-height
8'-1" to 9' (1) Horiz. Bar in top 12" & one bar at each third point
Min. (2) Anchor Bolts per Sill Plate w/ nut & ROUND plate Washer
2 1/2 Ø x ¼" Min. For each Bolt
over Concrete Foundation wall Consistent w/ 2015 IRC R401-403
With Asphalt Emulsion on Exterior Side
over Continuous Concrete Footings
Consistent w/ 2015 IRC Section R106.1
over Undisturbed Soil



Foundation Plan

Scale: 1/4"=1'-0" D Size Paper
Scale: 1/8"=1'-0" B Size Paper

Refer to Engineer Notes For Structural

9'-1' Main Walls
8'-1' Second Walls
4' Crawl Space Foundation Walls
Garage to Match Main TYP

Header Notes:

Headers 4' or less use 1 Ply 9.50 or 2 Ply 2x10 Dim. Lumber
Headers 6' or less use 2 Ply 9.50
Headers 8' or less use 3 Ply 9.50 or 2 Ply 11.88 ML
Headers 10' or less use 3 Ply 11.88 or 2 Ply 14.00 ML
Headers 10' or more refer to TJXpert Layout

3' Hallway Clearance
2015 IRC, Section R106 and R311.6
Saftey Glazing 2015 IRC, Sections R106 and R308.4.5

Exhaust and Ventilation:

Whole House Fan	80 CFM
Kitchen Fan	100 CFM
Laundry	50 CFM
Bathrooms	50 CFM
Bedrooms	10 CFM fresh air
Living Areas	10 CFM fresh air

Contractor to indicate location of fans if not indicated on plans already.

Smoke Alarms (S)

2015 IRC Code Section 106. R314
All smoke alarms shall be listed in accordance with UL 217 & installed in
accordance with NFPA 72
-One in each sleeping area
-Outside of each separate sleeping area in the immediate vicinity of the bedrooms
-On each additional story including un-finish & finished basements and habitable attics but not including crawl spaces and uninhabitable attics.
In dwellings or dwelling units with splits levels and without an intervening door between the adjacent levels a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.
-Alarm devices shall be interconnected with battery backup that the actuation of one alarm will activate all of the alarms

Carbon Monoxide Alarms (CM)

2015 IRC Section 106 & R315.1
New Construction an approved carbon monoxide alarm installed outside of each sleeping area in the immediate vicinity of bedroom and dwelling units.
They shall be listed as complying with UL 2034 and installed accordingly

Automatic Fire Sprinkler Systems:

Required for Ann Arundel Country, new home construction
R313.2.1 Design and installation. Automatic residential fire sprinkler systems shall be designed and installed in accordance with Section P2904 or NFPA 13D.

Crawl Space:

Through Floor min 18"x24" or through perimeter wall min 16"x24" required crawl space opening. If applicable, refer to mechanical code for access requirements where mechanical equipment is located under floors.
2015 IRC, Section R106, R408.4 M1305.1.4

Furnace:

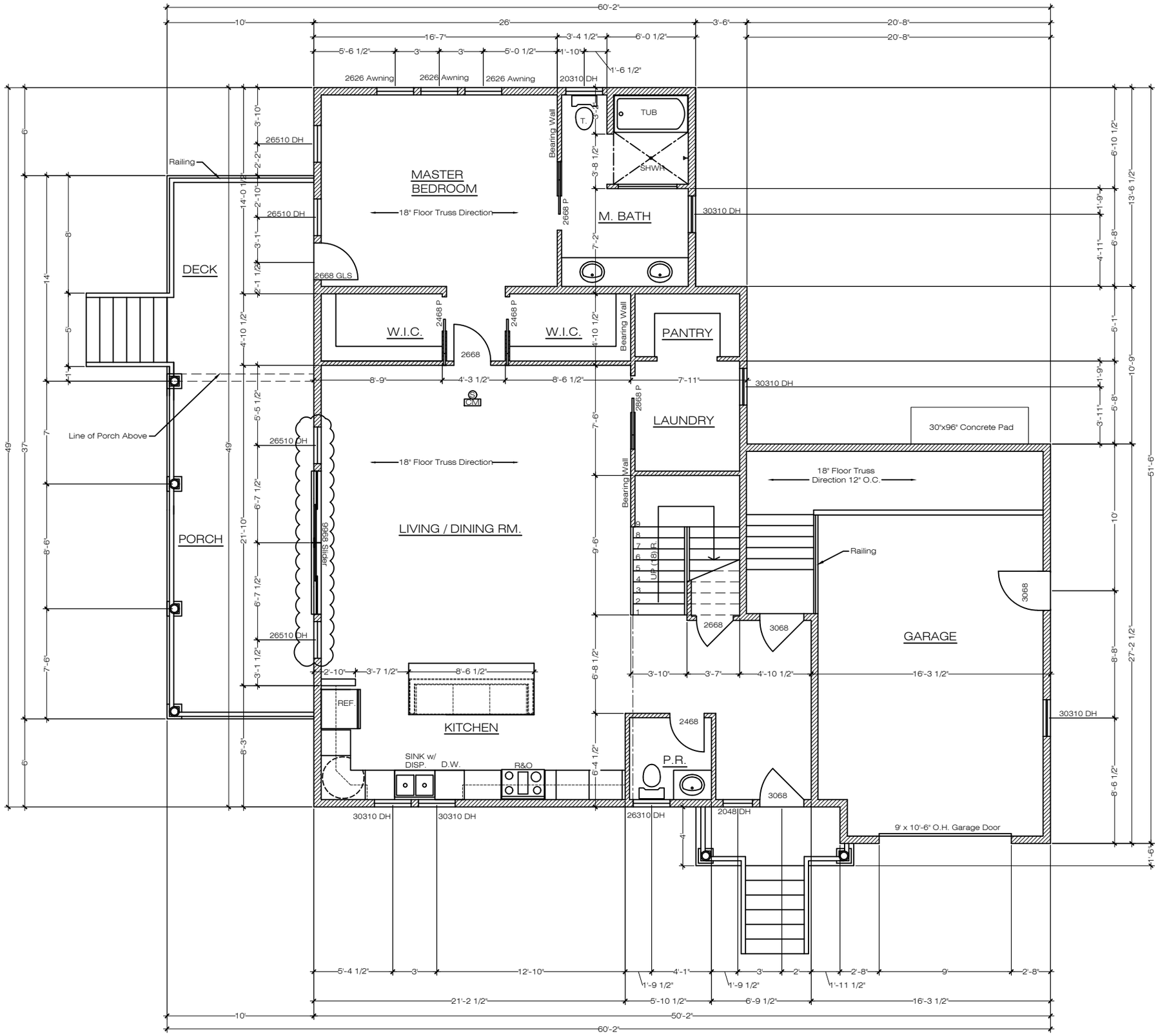
Location of furnace and water heater 2015 IRC, Section R106, and M1305
Elevate all sources of ignition in the garage a min. of 18" above the floor
2015 IRC, Sections R106, and M1307.3
Provide a protection post in the garage to prevent vehicle damage to furnace and water heater. 2015 IRC, Section R106, M1307.3.1

Garage Portals: (PFH)

Alternate Braced Wall Panel Garage Portal Design PFH
See Figure R602.10.6.2 Sheet A4

Stair System: (H)

2015 IRC R302.7, 311.7.2, R311.7 R312.1.3
Eq. Stair Risers 7 3/4" Max. height, Eq. Stair Treads 10" Min. depth
over (3) 11.5" MIN. Stair Stringers bolted at bottom with P.T. 2x4 -3 places with 3" x ½" Ø bolt and top securely mounted to framing with Simpson A35 Connector at Stairs
Stringer to Ledger or alternate approved connection.
with Cont. Handrail System mounted 36"above stair plane.
with Handrail return to wall.
with a Min. 6'-8" Head Clearance above stair plane.
with all other Railing System to be min. 42" above FFL &
meet current building codes for vert. and horiz. loading.
Slate Spacing to no more than 4" sphere to pass thru.
½" Gypsum Board under stairs
2% Slope Max 1 to 48



Main Floor

Scale: 1/4"=1'-0" D Size Paper
Scale: 1/8"=1'-0" B Size Paper

Refer to Engineer Notes For Structural

9'-1' Main Walls
8'-1' Second Walls
4' Crawl Space Foundation Walls
Garage to Match Main TYP

Header Notes:

Headers 4' or less use 1 Ply 9.50 or 2 Ply 2x10 Dim. Lumber
Headers 6' or less use 2 Ply 9.50
Headers 8' or less use 3 Ply 9.50 or 2 Ply 11.88 ML
Headers 10' or less use 3 Ply 11.88 or 2 Ply 14.00 ML
Headers 10' or more refer to TJXpert Layout

Exhaust and Ventilation:

Whole House Fan	80 CFM
Kitchen Fan	100 CFM
Laundry	50 CFM
Bathrooms	50 CFM
Bedrooms	10 CFM fresh air
Living Areas	10 CFM fresh air

Contractor to indicate location of fans if not indicated on plans already.

Smoke Alarms (S)

2015 IRC Code Section 106. R314
All smoke alarms shall be listed in accordance with UL 217 & installed in
accordance with NFPA 72
-One in each sleeping area
-Outside of each separate sleeping area in the immediate vicinity of the bedrooms
-On each additional story including un-finish & finished basements and habitable attics but not including crawl spaces and uninhabitable attics.
In dwellings or dwelling units with splits levels and without an intervening door between the adjacent levels a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.
-Alarm devices shall be interconnected with battery backup that the actuation of one alarm will activate all of the alarms

Carbon Monoxide Alarms (CM)

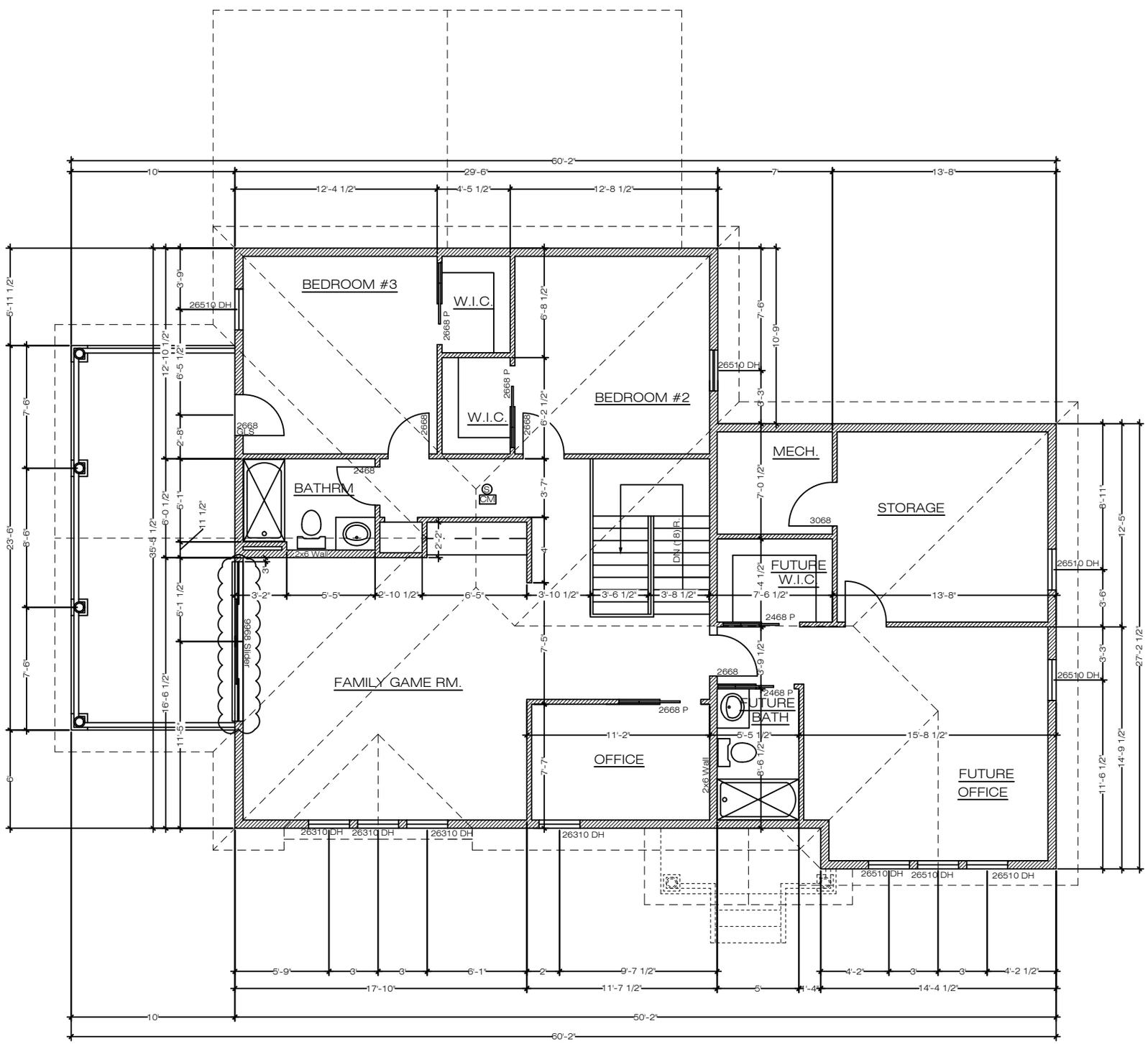
2015 IRC Section 106 & R315.1
New Construction an approved carbon monoxide alarm installed outside of each sleeping area in the immediate vicinity of bedroom and dwelling units.
They shall be listed as complying with UL 2034 and installed accordingly

Automatic Fire Sprinkler Systems:

Required for Ann Arundel Country, new home construction
R313.2.1 Design and installation. Automatic residential fire sprinkler systems shall be designed and installed in accordance with Section P2904 or NFPA 13D.

Stair System: (H)

2015 IRC R302.7, 311.7.2, R311.7 R312.1.3
Eq. Stair Risers 7 3/4" Max. height, Eq. Stair Treads 10" Min. depth
over (3) 11.5" MIN. Stair Stringers bolted at bottom with P.T. 2x4 -3 places with 3" x ⅜" Ø bolt and top securely mounted to framing with Simpson A35 Connector at Stairs
Stringer to Ledger or alternate approved connection.
with Cont. Handrail System mounted 36"above stair plane.
with Handrail return to wall.
with a Min. 6'-8" Head Clearance above stair plane.
with all other Railing System to be min. 42" above FFL & meet current building codes for vert. and horiz. loading.
Slate Spacing to no more than 4" sphere to pass thru.
½" Gypsum Board under stairs
2% Slope Max 1 to 48



Second Floor

Scale: 1/4"=1'-0" D Size Paper
Scale: 1/8"=1'-0" B Size Paper

Refer to Engineer Notes For Structural

Roof System: (A)

2015 IRC Code Section R801, R901
Architectural Grade, 25 year Asphalt Shingles R905
over #15 building felt
over 7/16" Ext. OSB roof sheeting
w/Clips & nailed 6" O.C.-Edges, 10" O.C.-field
over 8:12 Pitch Engineered Trusses @ 24" O.C.
(Framed According to Engineered Truss Layout)
with R-49 Blown in Attic Insulation
with 5/8" Sheet Rock on Interior Side
Taped Prep'd for Interior Finishes
Contractor to indicate 22"x30" Attic Access Location
2015 IRC Ice Protection Ice Barrier consisting of
2 layers of cemented under-layment and extend from the eave's edge 24" min. from inside exterior wall

Soffit System: (B)

2015 IRC Code
2x6 Fascia Board
with style "D" Metal Drip Edge
with 3/8" Soffit Sheeting
with 3" Continuous Soffit Venting
with add'l 2x4 Support as Required

Exterior Walls: (C)

2015 IRC Code R602, R608, R703
Siding and Shakes over Weather Resistive Barrier 7/16" APA
OSB & Nailing Pattern 6"-edge 12"-field
2x6 Stud framed @ 24" O.C. UNO
with (2) 2x6 Top Plates
with (1) 2x6 Bottom Plate
with min. R-21 Batt Insulation
with 1/2" Sheetrock Inside Occupancy separation between between house, attic, and garage
Taped Prep'd for Interior Finishes

Interior Walls: (D)

2015 IRC Code
2x4 Stud framed @ 24" O.C.
with (2) 2x4 Top Plates
with (1) 2x4 Bottom Plate
with 1/2" Sheetrock Both Sides
Taped Prep'd for Interior Finishes

Floor System: (E)

2015 IRC Code Section R502, R503, R504
3/4" T&G OSB Sub-floor Glued & Nailed
over 9 1/2" Engineered Floor Joists & 18" Floor Trusses
Series, Placement, & O.C. Spacing as determined & indicated on TJXpert Layout. (Version 6.0 or later)
connected to Rim Joist, spliced using gal. metal ties
not less than .058" x 1.5" wide
fastened w/6 16d nails ea. side
over 1/2" Sheetrock on Ceiling Side
Taped and Prep'd for Interior Finishes

Basement Furring: (F)

2015 IRC Code SectionR602.4
2x4 Stud Framed @ 24" O.C. with Bearing Walls @ 16" O.C.
with (2) 2x4 Top Plates
with (1) 2x4 Bottom Plate
with R-13 Batt Insulation
with 6-Mill Poly Vapor Barrier
with 1/2" Sheetrock on Interior Side
Taped and Prep'd for Interior Finishes

Foundation Wall System: (G)

2x6 Treated Sill Plate
over Foam Sill Sealer
with 1/2" Anchor Bolts @ 72" O.C. 10" Long, 7" Embedded
Max. 12" from all Corners or Splices
Concrete Wall Greater than 9' need to have an Architects or Engineer Seal 8' & under (1) Horiz. Bar in top 12" and one at mid-height
8'-1" to 9' (1) Horiz. Bar in top 12" & one bar at each third point
Min. (2) Anchor Bolts per Sill Plate w/ nut & ROUND plate Washer
2 1/2 Ø x 1/4" Min. For each Bolt
over Concrete Foundation wall Consistent w/ 2012 IRC R401-403
With Asphalt Emulsion on Exterior Side
over Continuous Concrete Footings
Consistent w/ 2015 IRC Section R106.1
over Undisturbed Soil

Window Well System: (J)

2015 IRC Code
Min. egress window opening will be 5.7 sq. ft 7 Sill height no higher than 44" above FFL
Window wells provide a net clear of 9 sq. ft. w/min horiz. projection & width of 36"
Exception:
Window Wells w/depth greater than 44" will have a permanently affixed ladder or steps.
Ladder or Steps 12"-width Inside, 3"-from walls,
Spaced no more than 18" O.C.
One egress ladder shall be provided within a window well of an unfinished basement

Stair System: (H)

2015 IRC R302.7, 311.7.2, R311.7 R312.1.3
Eq. Stair Risers 7 3/4" Max. height, Eq. Stair Treads 10" Min. depth
over (3) 11.5" MIN. Stair Stringers bolted at bottom with P.T. 2x4 -3 places with 3" x 1/2" Ø bolt and top securely mounted to framing with Simpson A35 Connector at Stairs
Stringer to Ledger or alternate approved connection.
with Cont. Handrail System mounted 36"above stair plane.
with Handrail return to wall.
with a Min. 6'-8" Head Clearance above stair plane.
with all other Railing System to be min. 42" above FFL & meet current building codes for vert. and horiz. loading.
Slate Spacing to no more than 4" sphere to pass thru.
1/2" Gypsum Board under stairs
2% Slope Max 1 to 48

Smoke Alarms (S)

2015 IRC Code Section R314
All smoke alarms shall be listed in accordance with UL 217 & installed in accordance with NFPA 72
-One in each sleeping area
-Outside of each separate sleeping area in the immediate vicinity of the bedrooms
-On each additional story including un-finish & finished basements and habitable attics but not including crawl spaces and uninhabitable attics.
In dwellings or dwelling units with splits levels and without an intervening door between the adjacent levels a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.
-Alarm devices shall be interconnected with battery backup that the acuation of one alarm will activate all of the alarms

Carbon Monoxide Alarms (CM)

2015 IRC Section R315
New Construction an approved carbon monoxide alarm installed outside of each sleeping area in the immediate vicinity of bedroom and dwelling units. They shall be listed as complying with UL 2034 and installed accordingly

Fasteners for Preservative treated wood

2015 IRC Code Section R402.1.1
Fastner for Preservative treated wood shall be of hot dipped zinc-coated galvanized steel, stainless steel, silicon bronze or copper. Exceptions:
1. One-half inch (12.7mm) diameter or greater steel bolts.
2. Fasteners other than nail & timber rivets shall be permitted to be of mechanical deposited zinc coated steel with coating weights in accordance with ASTM B695 class 55 min.

Ventilation 2015 IRC Section R408

The under-floor space between the bottom of the floor joists and the earth under any building (except space occupied by a basement) shall have ventilation openings through foundation walls or exterior walls. The minimum net area of ventilation opening shall not be less than 1 s/f for each 150/f of under floor space area, unless the ground surface is covered by a Class 1 vapor retarder material.
If the vapor retarder is used the min. net area of ventilation openings shall not be less than 1 s/f for each 1500 s/f.
One such vent shall be within 3' of each corner of building.

Exhaust and Ventilation:

Whole House Fan	80 CFM
Kitchen Fan	100 CFM
Laundry	50 CFM
Bathrooms	50 CFM
Bedrooms	10 CFM fresh air
Living Areas	10 CFM fresh air

Contractor to indicate location of fans if not indicated on plans already.

Frost Protection 403.1.4.1

Except where otherwise protected from frost, foundation walls, piers and other permanent supports of buildings and structures shall be protected from frost by one or more of the following methods:
1. Extended below the front line specified in Table R301.2
2. Construct in accordance with Section 403.3
3. Construct in accordance with ASCE 32 or
4. Erected on Solid Rock

Exceptions:
-Protection of freestanding accessory structures with an area of 400 of 600 square feet or less, of light frame construction with an eve height of 10' of less shall not be required.
-Decks not supported by a dwelling need not be provided with footings that extend below the frost line.
-Footings shall not bear on frozen soil unless the frozen condition is permanent.

Alternate Reinforcing Bar Size and Spacing Vertical Rebar Only

8" nominal wall thickness
72" Max rebar spacing

#4 @ 15"	is equal to	#5 @ 23"	or	#6 @ 32"
#4 @ 16"	is equal to	#5 @ 25"	or	#6 @ 32"
#4 @ 16"	is equal to	#5 @ 25"	or	#6 @ 36"

Table R403.1
Min. Width of Conc. or Masonry Footings (inches)

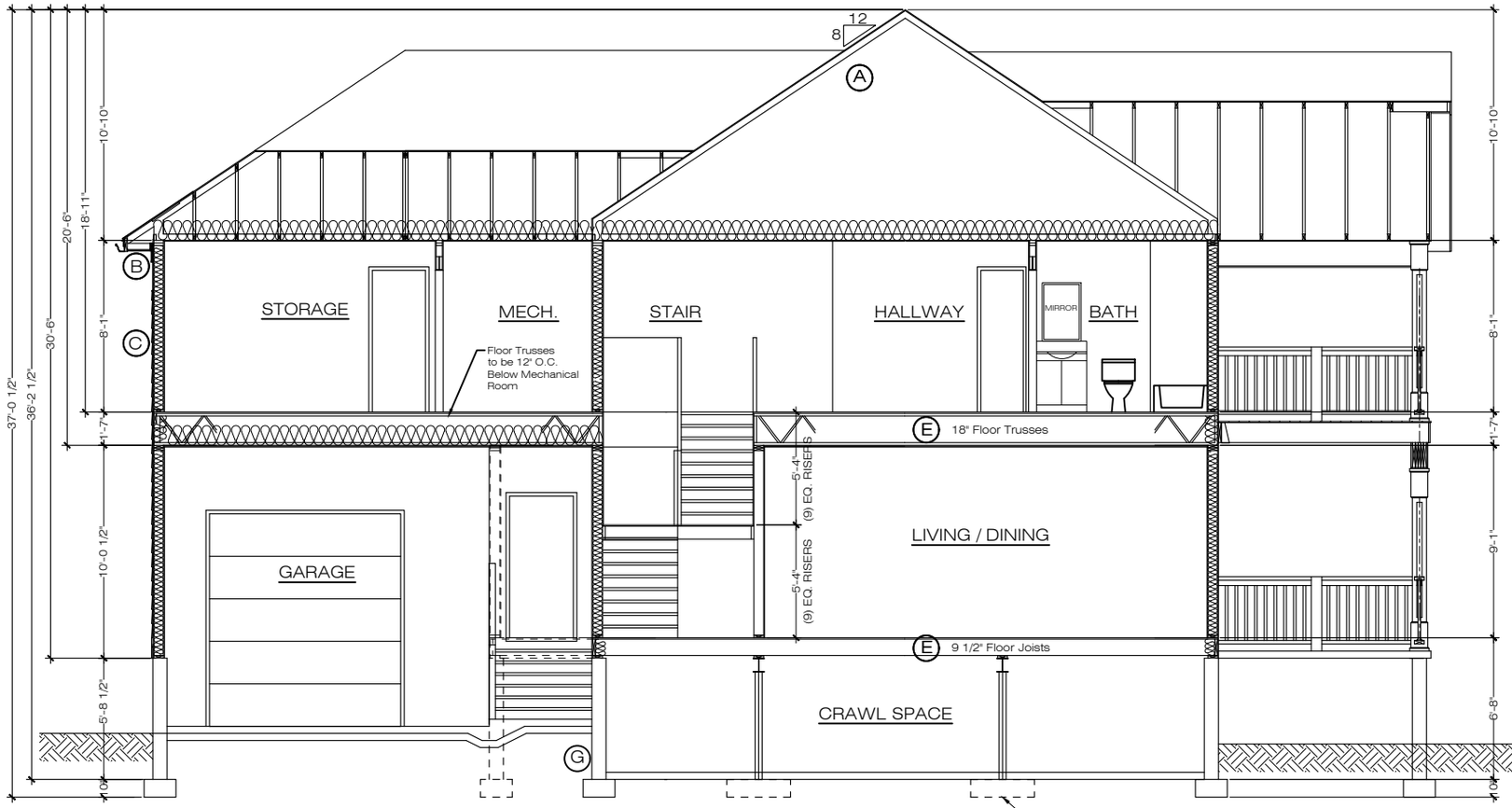
	Load-Bearing Value of Soil (psf) 1500	2000	3000
Conventional Light-frame Construction			
1-story	12	12	12
2-story	15	12	12
3-story	23	17	12
4" Brick Veneer over light frame			
1-story	12	12	12
2-story	21	16	12
3-story	32	24	16

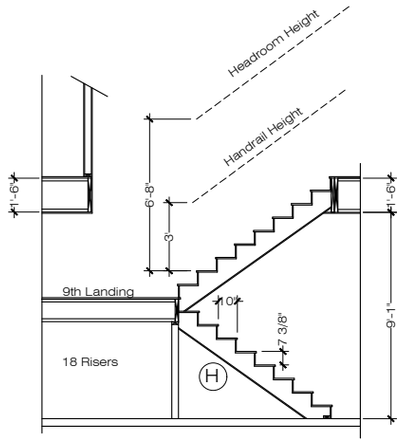
Table R404.1.2 (3)
Reinforced Concrete Foundation Walls
GM, GC, SM, SM-SC and ML Soils
45
Min. Vertical Reiforcement Size & Spacing

Use this table unless a soil test is done

Max. Wall Height	Max. Unbalanced Backfill Height	8" Conc. Walls
8'	5' or less	Not Required
	6'	Not Required
	7'	#6 at 36" O.C.
9'	5' or less	Not Required
	6'	Not Required
	7'	#6 at 35" O.C.
	8'	#6 at 32" O.C.
10'	7' or less	Not Required
	8'	#6 at 35" O.C.
	9'	#6 at 34" O.C.

8' and Under (1) Horizontal Rebar in top 12" and one at mid-height
8' and Greater (1) Horizontal Rebar in top 12" and one bar at each third point





MIN. WIDTHS AND TIE-DOWN FORCES OF ALTERNATE BRACED WALL PANELS Table R602.10.6.1						
		Height of Braced Wall Panel				
		Sheathed Width				
Seismic Design Category and Windspeed	Tie-Down Force (lb.)	8 ft. 2'-4"	9 ft. 2'-8"	10 ft. 2'-8"	11 ft. 3'-2"	12 ft. 3'-6"
SDC A,B, and C Windspeed <110 MPH	R602.10.6.1, Item 1	1800	1800	1800	2000	2200
	R602.10.6.1, Item 2	3000	3000	3000	3300	3600
		Sheathed Width				
		2'-8"	2'-8"	2'-8"	Note a	Note a
SDC D,D, and D Windspeed <110 MPH	R602.10.6.1, Item 1	1800	1800	1800	-	-
	R602.10.6.1, Item 2	3000	3000	3000	-	-

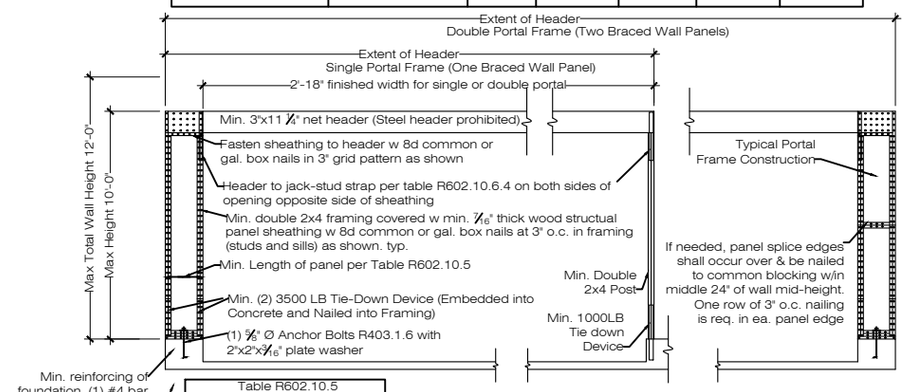
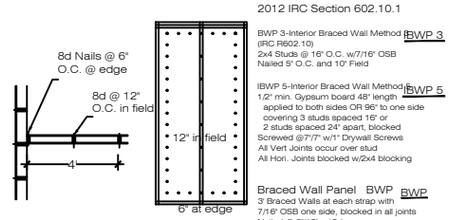
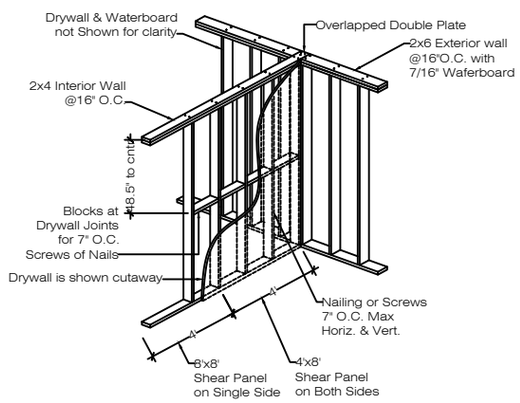


Table R602.10.5 MIN. LENGTH OF BRACED WALL PANELS			
CS-PF	Wall height	8ft	9ft	10ft
		16"	18"	20"

Figure R602.10.6.2
Alternate Braced Wall Panel Garage Portal Design
Portal Frames with Hold Downs (PFH)



Braced Wall Panel Detail
All exterior wall are braced walls.



Cross Section

Scale: 1/4"=1'-0" UNO D Size Paper
Scale: 1/8"=1'-0" UNO B Size Paper