



General Notes and Code Information

All construction materials and methods are to fully comply with all state and local codes. All design and construction is based on the 2006 International Residential Code and 2009 North Carolina State Building Codes. The Contractor/Owner is to verify all dimensions and details prior to beginning construction. Every attempt has been made to assure the accuracy of these drawings, any discrepancy should be brought to the attention of the "Barnes Residential Designer". This designer shall not be held liable for any omissions or errors in the drawings.

Design Loads:

Wind Load	120 MPH
Roof Load < 3/12	20 PSF
Roof Load > 3/12	10 PSF
Floor Load (non-sleeping)	40 PSF
Floor Load (sleeping)	30 PSF
Attic Load > 3/12 = 20 psf	
Wind Exposure	B

Footings and Foundation:

All exterior wall and pier footings detailed in these plans were calculated using the Table R403.1. See wall sections and details for sizes and reinforcement. All piers are 12" x 8" CMU on 24" x 28" x 10" footing. On 1 story, a 4" cap may be used and for 1 1/2 story or greater, a 6" cap must be used.

Framing Construction:

All exterior wall and pier footings shall be placed on undisturbed soil capable of supporting 1500 PSF per Table R401.4.1. The bottom of footings to be a min. of 12" below grade. All piers over 32" must be filled with type "S" mortar. Dowels shall be used as required by code and structural requirements. Refer to R 404.1.5.5.1.

Roof Construction:

All roofings must be 3000 PSI conc. and bear on undisturbed soil capable of supporting 1500 PSF per Table R401.4.1. The bottom of roofings to be a min. of 12" below grade. All roofings must be on a minimum of 5 gang studs at each end. Steel beams must bear on a minimum of 3 gang studs at each end. Micro-Lam or LVL beams must bear on a minimum of 3 gang studs at each end.

Floors:

All engineered floor systems are to be set and braced in accordance with manufacturer's layout. This layout is to specify sizes, span/foot data, and blocking details. All wall studs are to be SPF #2 at 16" o/c unless otherwise specified. All stud framing over 9'-0" is to be balloon framed from the floor to ceiling using 2"x6" x 8" SYP or as specified. All wall bracing to be per R602.10.

Roof	7/16" OSB
Wall	7/16" OSB
Floor	3/4" OSB

Floor and wall framing shall be spaced and conditioned to accommodate loads imposed and transmit these loads to the supporting foundation.

The ends of each joist shall have a min. bearing of 1.5" bearing on a wood member and a min. of 3" bearing on masonry. Refer to R602.6.

All wood joists or the bottom of wood structural floor closer than 18" or wood girders closer than 12" to exposed ground shall be pressure treated as per R319.1.1 and USBC R612.2.

Roof Construction: All lumber shall be SYP #2 or SPF #2 or better. These members are to be identified by grade mark. R602.1 All spans are to comply with R602.5.

Rafter sizes / spans are detailed in "wall section" as specified in Tables R602.5.1. All collar ties shall be 2"x4" at 16" o/c.

Hips and ridges are to be sized so that the rafter is full bearing. All based loads shall be transferred to the foundation. Rafter/hurricane ties are detailed in "wall section".

The ends of each rafter shall have a min. bearing of 1.5" bearing on a wood member and a min. of 3" bearing on masonry. Refer to R602.6. Ceiling joists and rafters shall be nailed to each other in accordance with Table R602.3(1) and R602.5.1(9) Per R602.3.1.

Misc. Code Information:

All handrails shall be provided on at least one side of each continuous run of treads or flight with 4" or more rises or 30 inches. R311.5.6 Handrail height shall be measured vertically from the sloped plane of the tread nosing and shall be between 34" and 38" in height above this plane. R311.5.6.1

Type 1 handrails are required with a circular cross section between 1 1/2" and 2" R311.5.6.3. Spacing of rail posts to be less than 4" o/c. R312.2. All stairways shall have a min. width of 36" in the clear below and above the handrail. R311.5.1 The min. headroom in all parts of the stairway shall be 6'-8" R311.5.2. Spiral stairways are the exception, refer to R311.5.6.

All int. and ext. stairways shall be provided with a means to illuminate the stairways and landings. Per R303.6 A minimum of recessed window shall be provided per bedroom and shall have a min. clear opening of 5.7 SF. Smoke detectors shall be interconnected and receive the primary power from the main building wiring and to have a battery back-up.

Glass shower and tub enclosures are to be tempered. Windows at stairways and landings less than 60" above the floor shall be tempered. Egress windows (Emergency escape and rescue openings) shall not have a sill height greater than 44" above the floor (R310.1) and shall have a minimum net clear opening of 5.7 square feet. Window supplier to confirm all egress and tempering requirements.

Fire blocking shall be provided to cut off all concealed draft openings. These locations are concealed spaces of studwalls at all concealed vertical and horizontal spaces. See R602.8 and R602.12 for additional locations. All additional engineering that is required by code to be supplied by builder/owner.

Establish and show floor and walls above subslab with installed shower heads and in shower compartments shall be finished with non-absorbent surface. These surfaces to extend to a height of not less than 6 feet above the floor. Windows shall be provided in the outside wythe of masonry walls at a max. spacing of 33" on center. R703.7.5

Flashing is to be installed per R703.6 and be of corrosion resistant material in such a manner as to prevent any of water into the wall cavity and building. Stairs Treads and Risers: The maximum rise height shall be 8". This distance is measured vertically and shall not vary by more than 3/8". R311.5.1

The minimum tread depth shall be 10" and this measurement shall not vary by more than 3/8" R311.5.3.2 The nosing radius shall not be greater than 9/16". The nosing projection shall be between 1/2" and 1 1/2" and the measurement shall not vary by more than 3/8" R311.5.3.5

Landings shall be at the top and the bottom of each stairway. Each landing shall not be less than 36" in each direction of travel. R311.5.4

Insulation: Insulation Zone for this plan is for Zone 3. Fenestration U-factor of 0.65. Per N1102.1

Ceilings R-30 Walls R-13 Floors R-19 Slab/Perim. R-10, 2 FT.

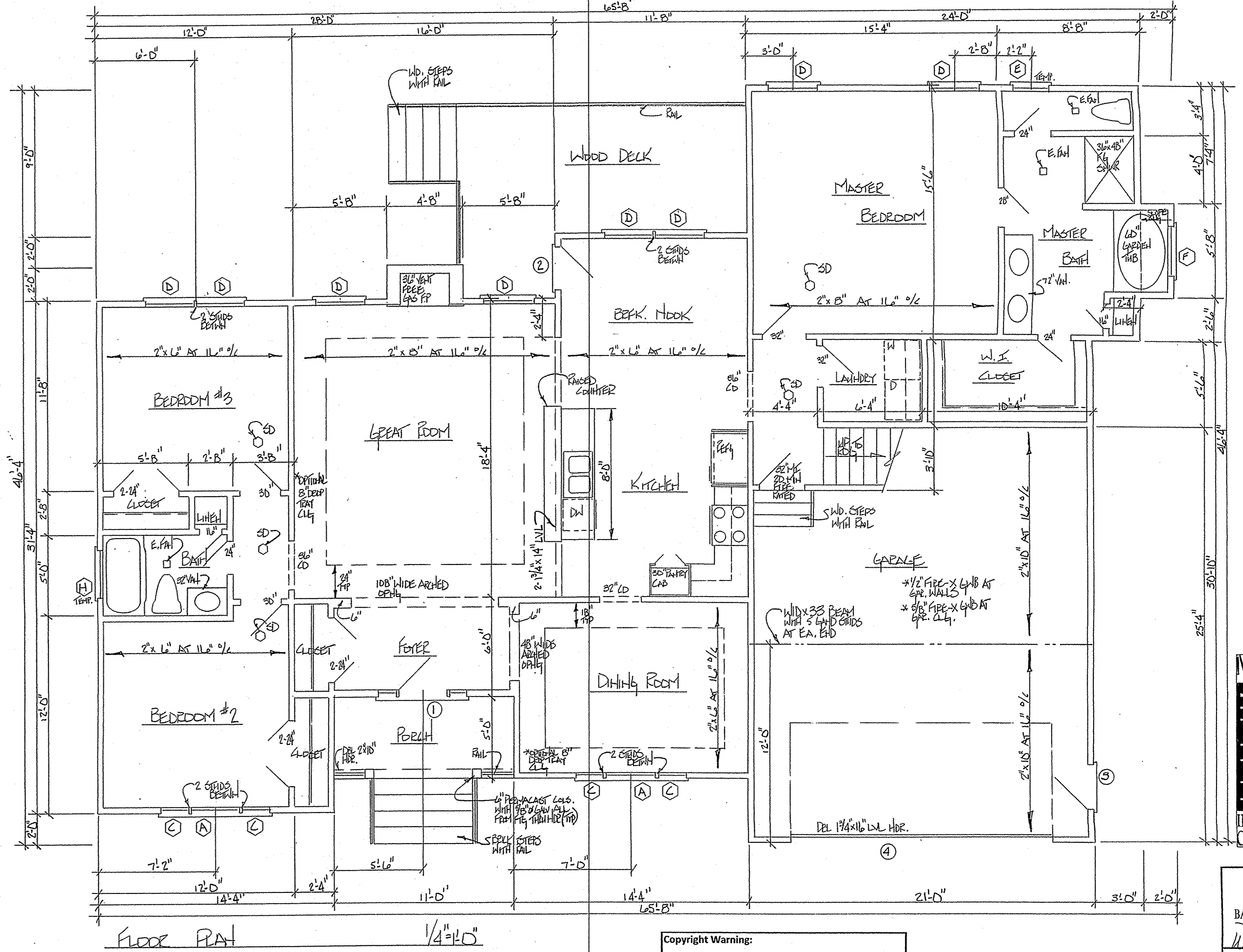
Trusses: Supplier / Manufacturer to supply an Engineered layout that details layout, spacing, bracing, and any additional installation details. This is to include gable end bracing.

Fastening: Refer to IRC 2006 Table R602.3 for all fastening requirements.

Deck: Deck is to be designed by others to support 50PSF and to comply with flashing per R703.8.

Girders and Headers: All exterior headers per Table R502.5(1). All interior headers per Table R502.5(2) Wall Bracing Method: Method R3 per R602.10. This plan is designed to have all walls continuously Sheathed with 7/16" OSB APA rated sheathing. Gypsum wall panel calculations to be provided.

**All T & L truss layouts are to accompany this plan when presented for permit.



Square Footage

Living Area	1682
Room Over Garage	241
Total (Heated)	2023
Garage	478
Front Porch	59
Deck	171

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Window Schedule

Letter	Size	Description	DP Rating
A	3'-0" x 6'-2"	Mt vinyl single hung with Low E glazing "set at 7'-6"	DP-50
B	2'-4" x 6'-2"	Mt vinyl single hung with Low E glazing "set at 7'-0"	DP-50
C	1'-3" x 6'-2"	Mt vinyl single hung with Low E glazing "set at 7'-0"	DP-50
D	3'-0" x 5'-2"	Mt vinyl single hung with Low E glazing	DP-50
E	2'-0" x 3'-2"	Mt vinyl single hung with Low E glazing	DP-50
F	3'-0" x 4'-0"	HyLight or equal vinyl framed acrylic frosted block unit	DP-50
G	2'-0" x 4'-0"	Mt vinyl single hung with Low E glazing	DP-50
H	3'-0" x 1'-0"	Mt vinyl fixed transom with Low E glazing "set at 7'-6"	DP-50
J	5'-0" x 2'-6"	Mt vinyl fixed elliptical top unit with Low E glazing	DP-50

**Supplier / Builder to confirm egress, Low E glazing, and tempering requirements. Egress windows to have a min. egress of 5.7 SF (R310.1.1). Min. sill height at 2nd floor to be 18" (USBC R613.2) and max. sill height of a egress window to be 44" (USBC R310.1.1)

Exterior Door Schedule

Number	Size	Description	DP Rating
1	3'-0" x 6'-3"	ThermaTru Metal Insulated Panel w/ 12" sidelights	DP-35
2	2'-8" x 6'-3"	ThermaTru Metal Insulated Full View	DP-35
3	2'-8" x 6'-3"	ThermaTru Metal Insulated Half View	DP-35
4	16'-0" x 7'-0"	Dalton Metal Panel Garage Door	DP-35

**All windows and doors are to be flashed using the "DuPont" Flashing System Guidelines or equivalent manufacturer.

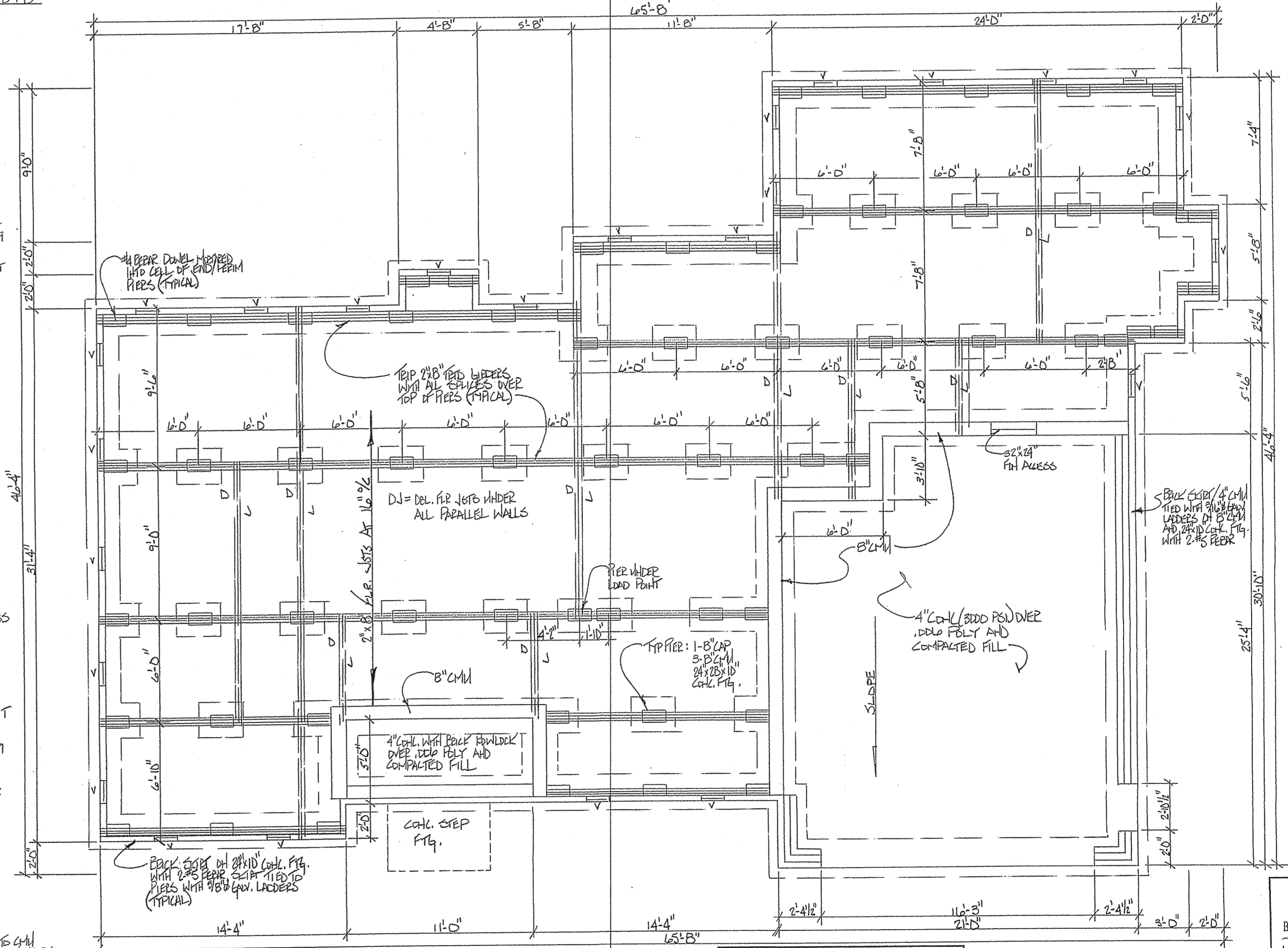
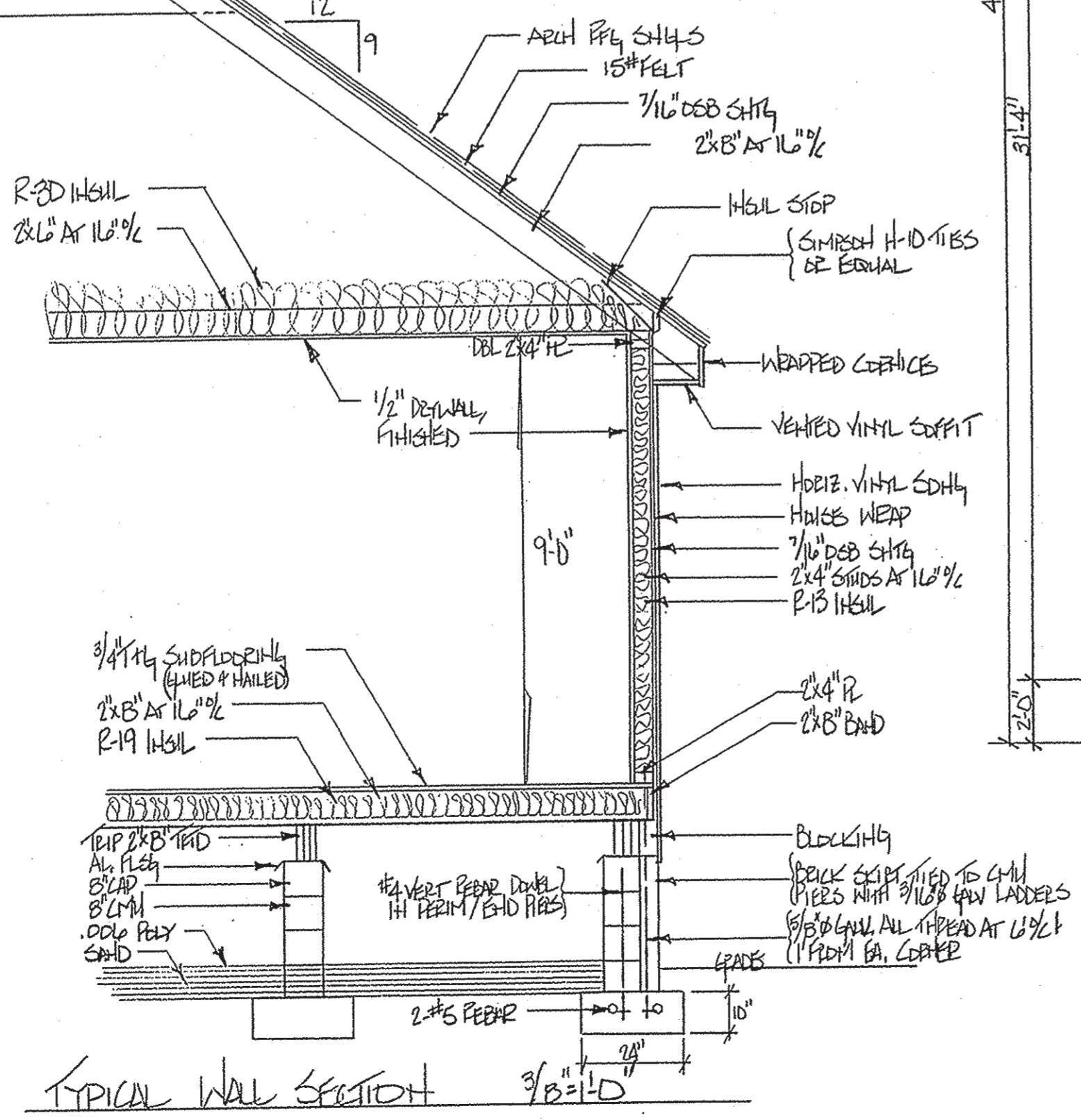
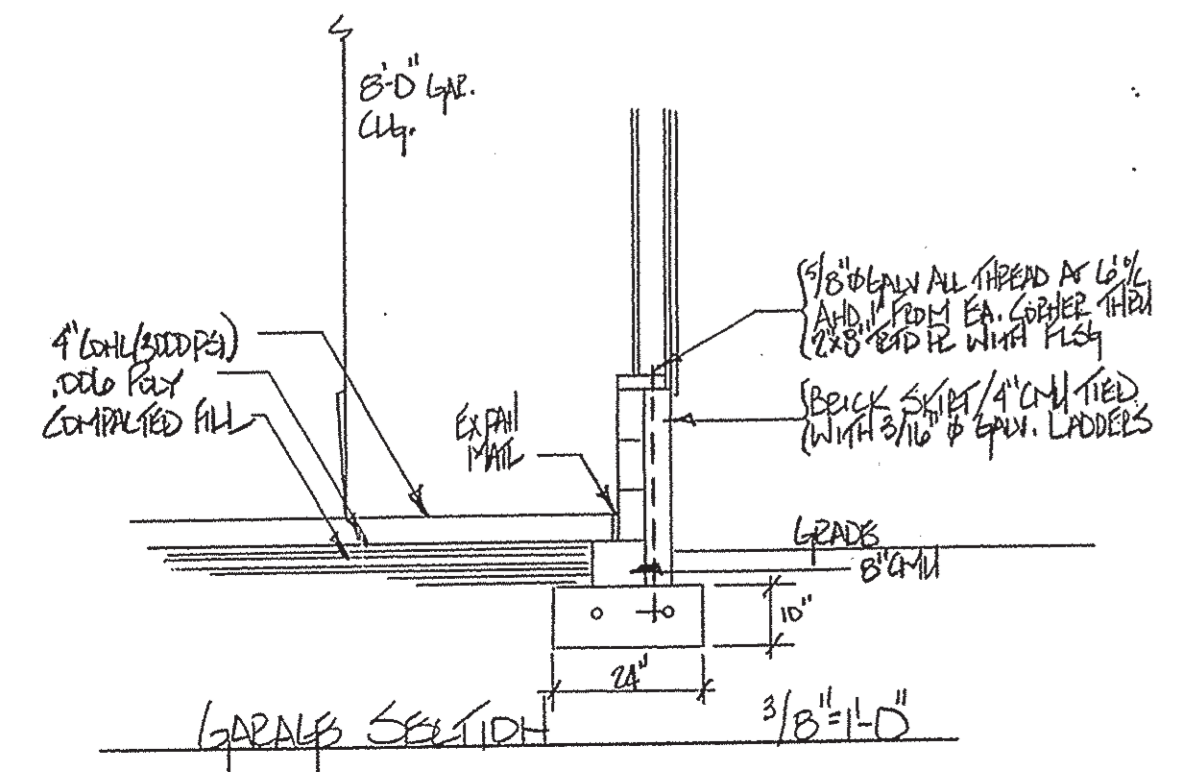
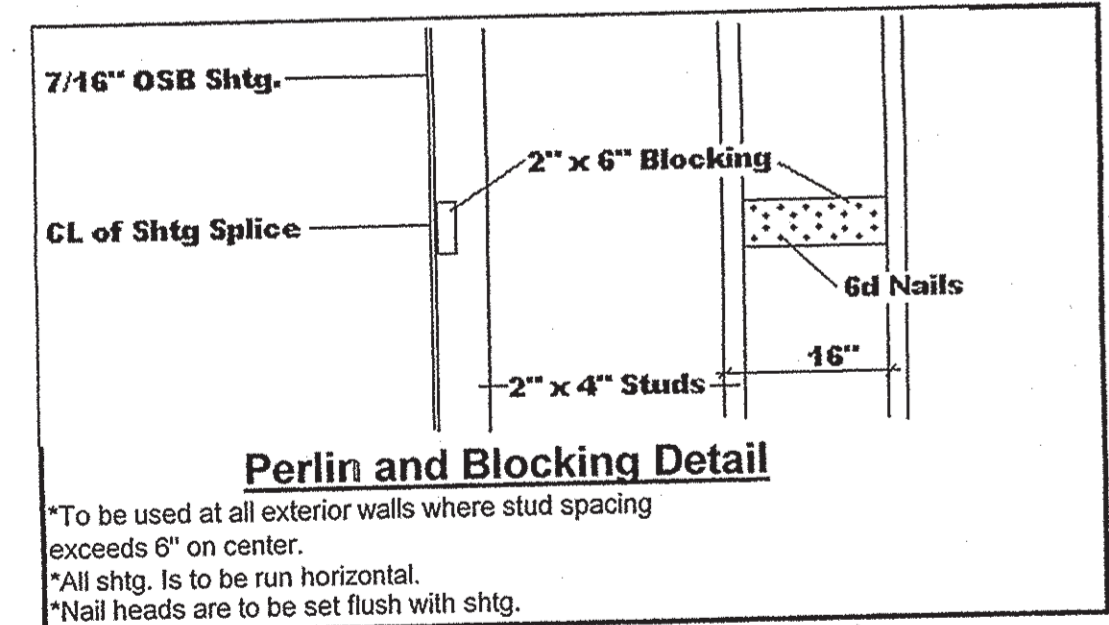
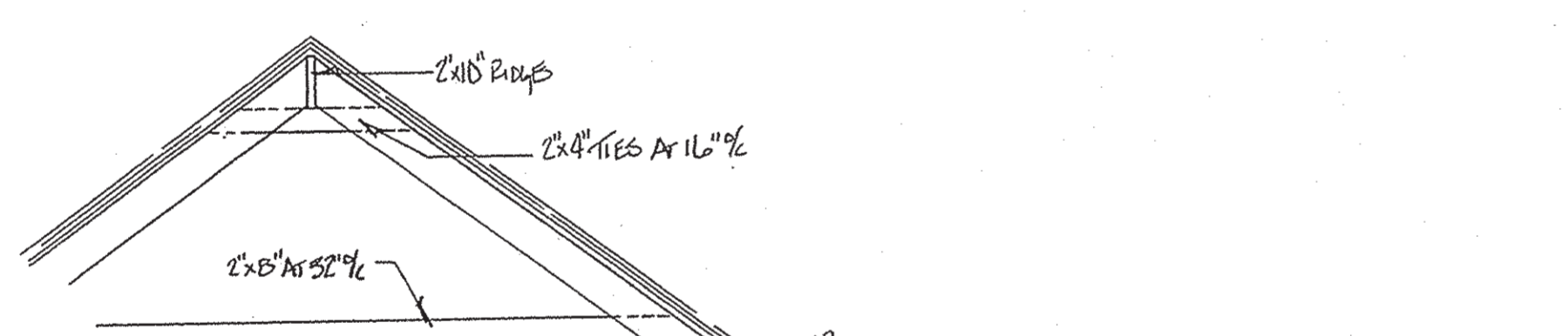
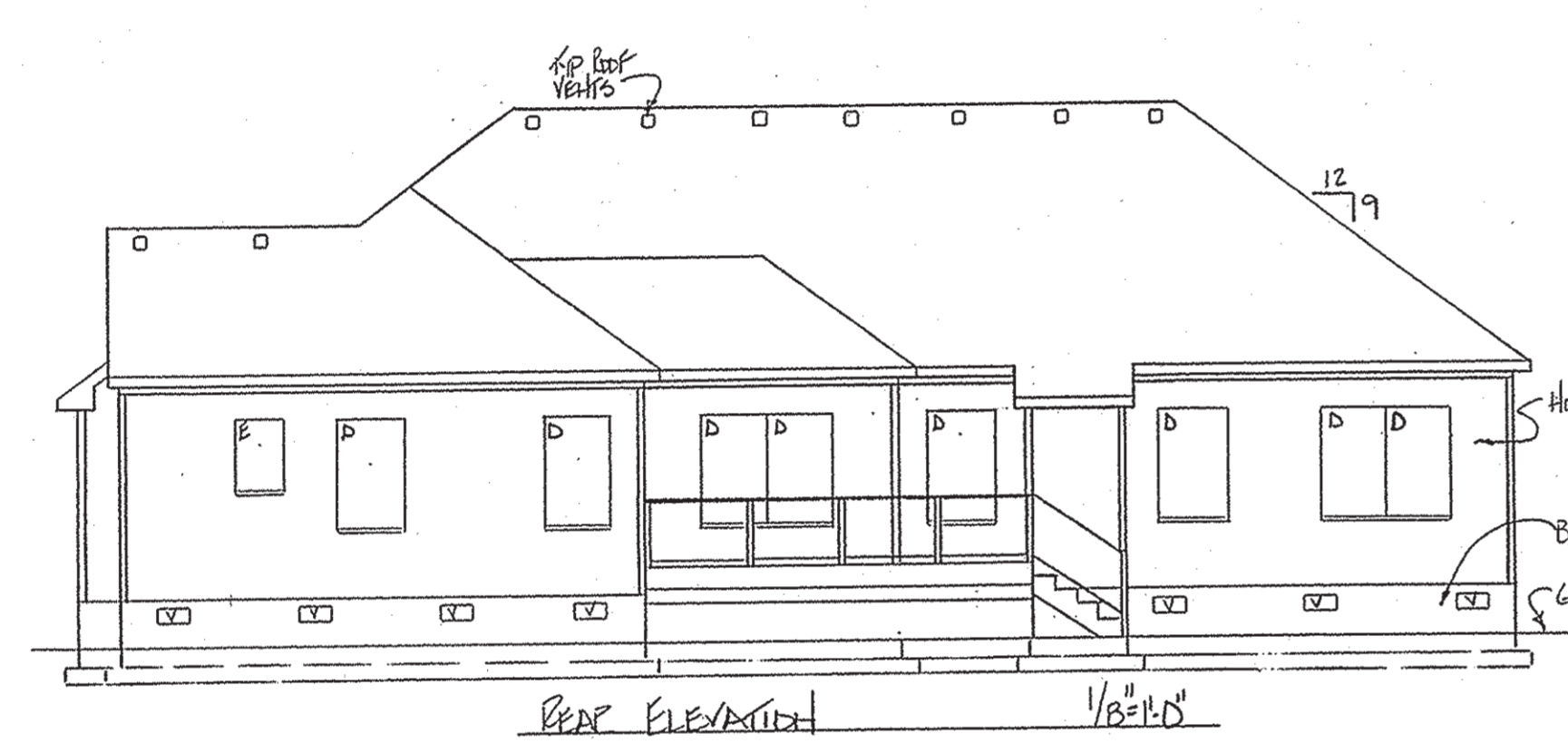
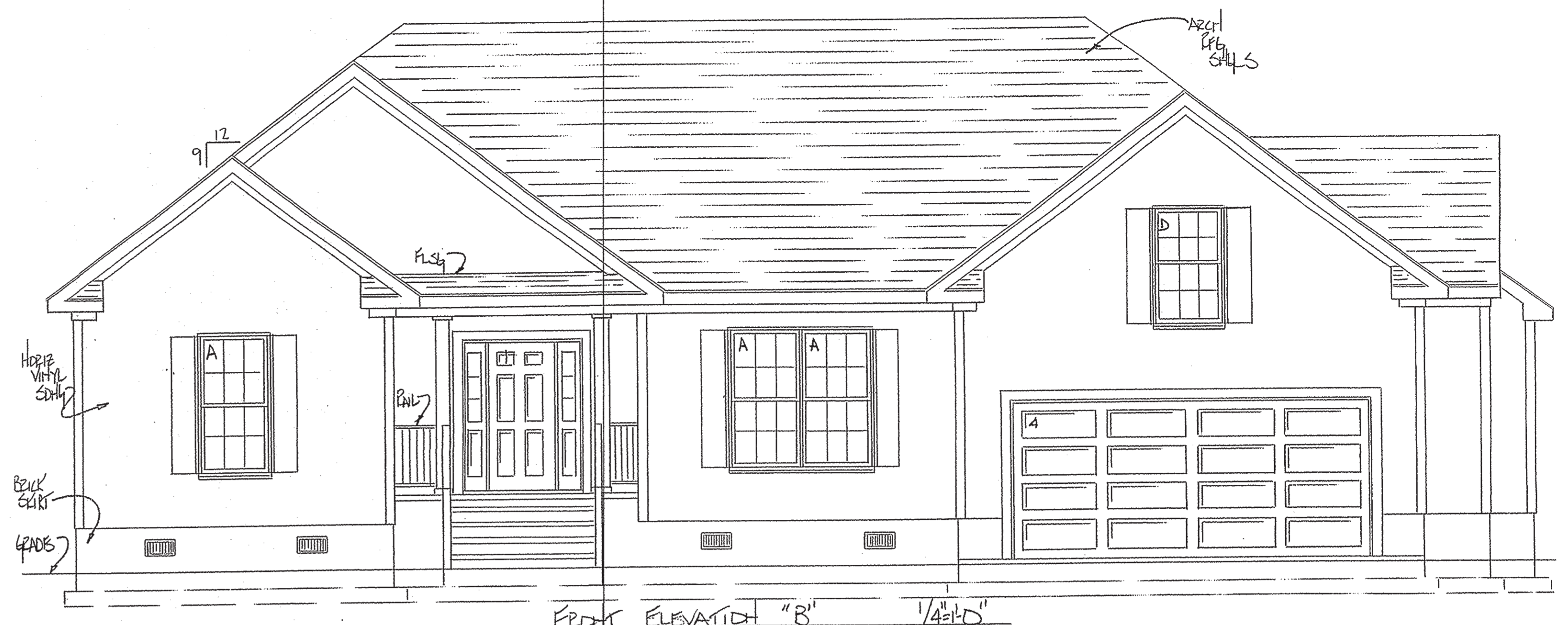
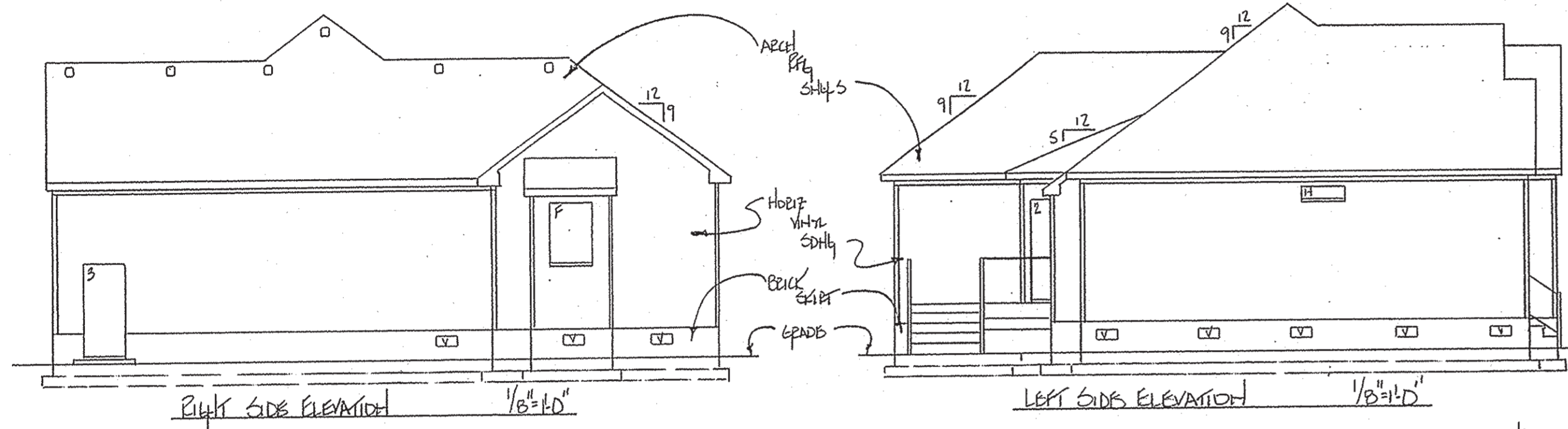
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Plan# 720 Modified
February 28, 2011



- Foundation Notes:**
- All sills and girders to be #2 SYP, Pressure Treated.
 - V = 6" x 16" foundation vent with screen and shutter. Locate vents per Local Bldg. Inspections Dept.
 - All piers are to be 6" x 8" x 10" CMU on 24" x 28" x 10" deep.
 - Footings are bear on undisturbed soil that is capable of supporting a min. of 1500PSF per R401.4.1
 - All concrete footings to be 3000 psi (min) conc.
 - Garage floor slab to be a min. of 3000 PSI per Table R402.2.
 - Grade under crawl to have sand or gravel fill with 6 Mil.

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