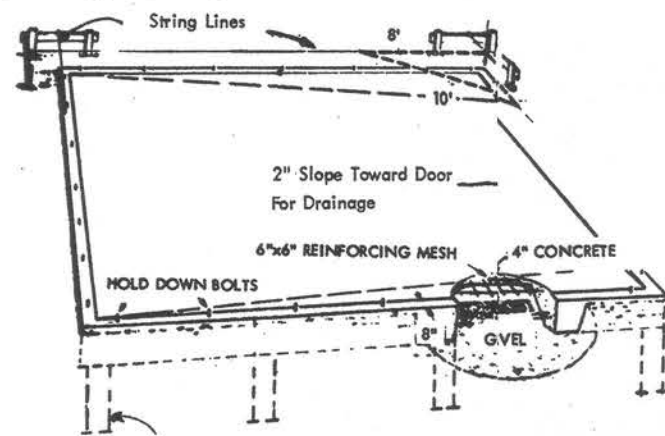


INSTRUCTIONS:

1. Study the plan thoroughly. Be sure to check your local code requirements and if required obtain a building permit. Omit steps 2 through 8 if slab is poured by contractor.
2. Locate the garage on your lot to conform to local code requirements, such as side and rear lot setbacks. Allow enough room for easy entrance, exit, or turn around, if possible.
3. Stake out the area as illustrated. Be sure corners are square. Remember that dimensions on plan are to outside of concrete and face of stud. See Foundation plan.
4. Dig trench for foundation approximately 12" deep, 12" wide at bottom. Taper inward at top to approximately 20".



To 6" below frost line, if required.

5. Build forms for the concrete slab, using 2" lumber. Set top of 2" form board to desired floor height and level. Inside face of form board must line up exactly with "string lines" set at proper building dimensions.

Brace securely. This is very important to keep forms from pushing out when concrete is poured.

Use a gravel fill and tamp to within 4" of top of form boards.

6. Call building inspector to check location of trenches before pouring concrete.

Note: At least two 1/2" (or #4) reinforcing bars in perimeter makes a better job. Using wire mesh in floor slab minimizes cracking.

Have local electrical contractor install conduit under slab for electrical service.

7. Pour ready-mix concrete completely filling forms. Surface and level with a long straight board and trowel.
8. Set anchor bolts (see foundation plan) 1 3/4" in from edge of concrete and extending at least 2 1/2" above surface.

9. After concrete has set, place 2x4 bottom plate on top of bolts with edge of 2x4 flush with outside face of concrete, and top with a hammer over each bolt to locate position of bolt holes. Drill a 3/4" hole in bottom plate to fit over bolts. Check by placing 2x4 plate over bolts and be sure that edge of 2x4 is flush with face of concrete.

NOTE: Note that the walls are laid out in at least two panels each. This has been done for ease of handling the pre-assembled walls.

FRAME CONSTRUCTION

Begin construction by assembling wall panel A, B, C and D, on the concrete garage slab. See Nailing Schedule on Plan.

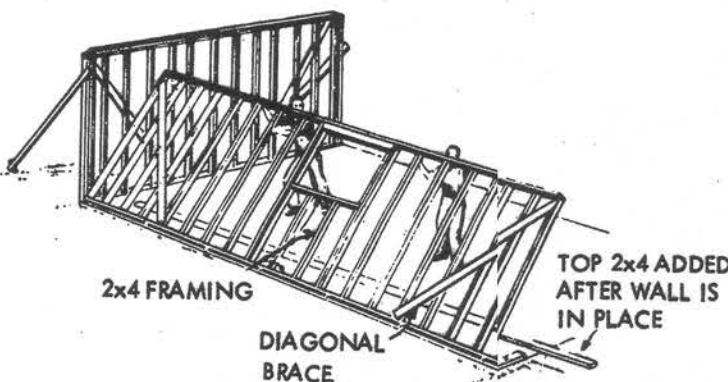
Assemble all four panels before tilting them into position.

10. Lay the predrilled 2"x4" bottom plate and a 2"x4" top plate for panel "A" side by side and mark position of 2"x4" studs 16" o.c. as shown on panel elevation drawing (note that the first stud space on each end of panels is measured from the outside face of stud to the center line of the next stud). Assemble wall panel "A" using pre-cut 2"x4" studs 7'-8 5/8" long. Nail through top and bottom plates to studs using two 16 penny nails at each connection.

11. Let-in bracing. Check panels for squareness. Lay the 1"x4" corner brace on panel outer corner at top of panel down to bottom plate at 45 degree angle. Mark 1"x4" position on each stud. With your circular power saw cut into stud 3/4" at each mark. Using a chisel and hammer knock out the piece of wood leaving 3/4" recess into which you place the 1"x4" corner brace and nail with two 8 penny nails at each stud and top and bottom plate.

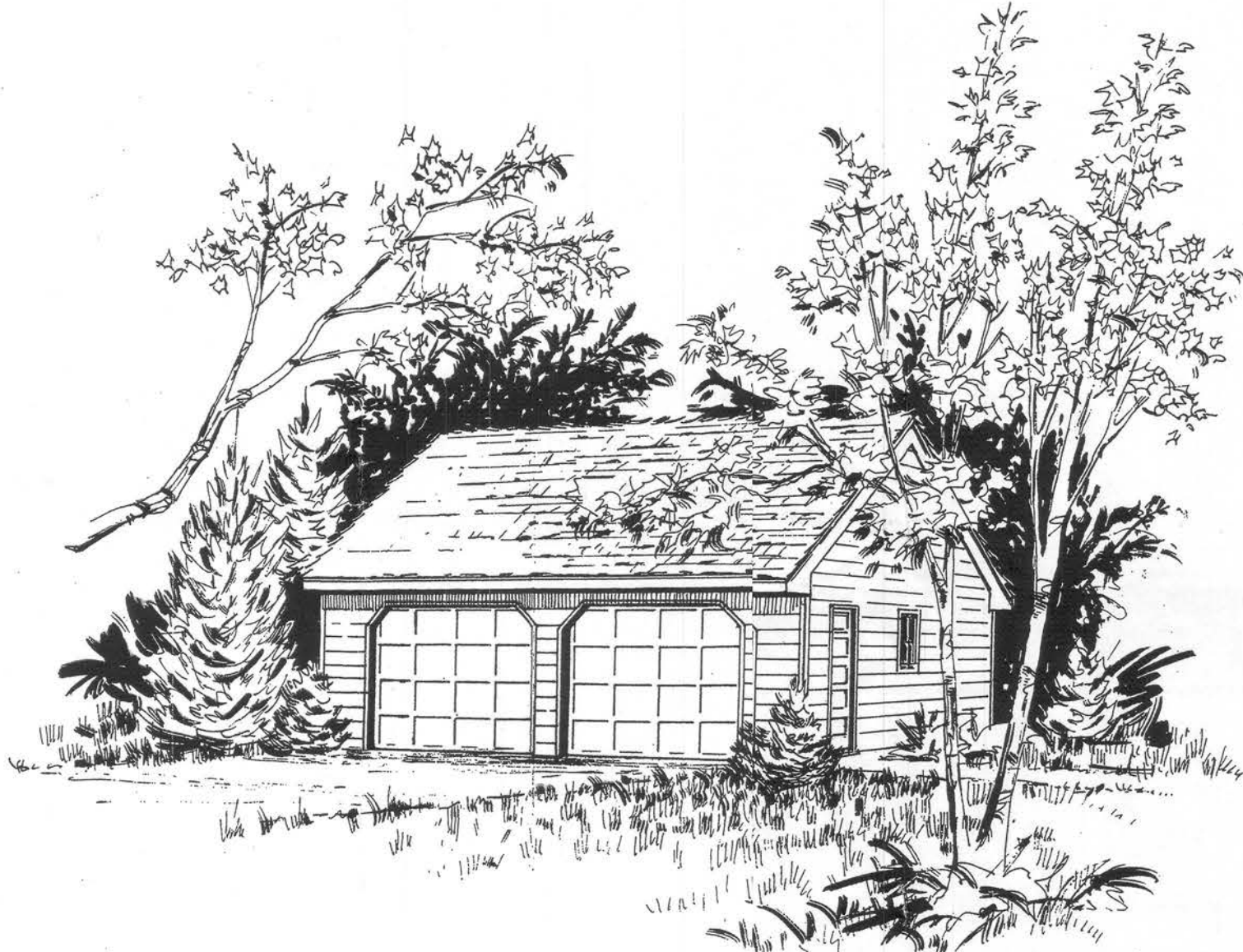
Repeat steps 10 and 11 for panels "B", "C" and "D".

12. Now that you have the first four wall panels assembled you can start the erection of the walls. Tilt up panel "A" and place it in position over the anchor bolts. Brace panel securely with 2"x4" brace to ground stake. Place washer and nut on anchor bolts and tighten down panel. Follow same procedure for panels "B", "C" and "D".

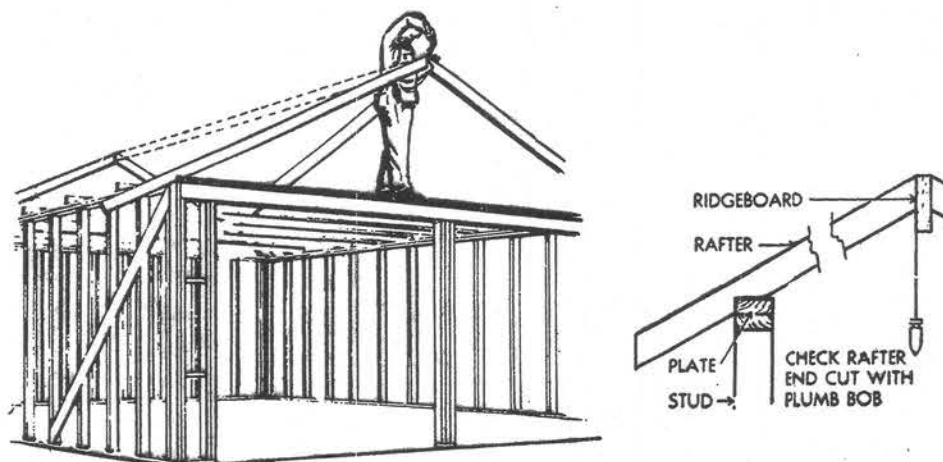


13. Repeat instructions number 10, 11 and 12 for assembly of remaining wall panels. Assemble and erect panels in sequence.
14. As panels are erected you can add the 2"x4" tie plate as shown on wall framing elevations. Nail plate 16" on center with 16 penny nails.
15. Cut garage door header to length and nail together with two 20 penny nails at each end. Stagger nail 20 penny nails 32" o.c. along top and bottom of header on both sides.
16. Nail 2"x4" cripples at each side of door opening. Lift assembled header into position and rest on cripples and nail to panel studs using 5 penny nails. Nail hardware surround to inside face of cripples (see garage door jamb detail).
17. Add 2"x4" tie plate to top remaining wall panels.
18. Lay rafter ties approximately 4' on center across top plate to form a working platform for rafter erection. Brace ties below if span is too long.

2 CAR GARAGE



19. Cutting rafters is simplified by using the template pattern provided on the plan. Layout and cut two rafters to size and check for accuracy. (Be sure to use the same rafter as a pattern to make all additional rafters).



20. Erect and "back-nail" the end rafters in place and brace. 10 or 12 feet from the end wall repeat the above process, locating these two rafters directly over a stud below. Then slip the ridge board into position. Be sure ridge is level, rafters are plumb and brace securely. The remaining rafters can be put in place located over studs on outside walls. Rafter ties and collar ties should then be nailed to rafters and hangers installed before bracing is removed.
21. Add 2x4 gable studs, eave blocking and any other framing necessary, as shown on plan.
22. Apply 1/2" plywood sheathing over roof rafters starting at the bottom of the rafter. Stagger joints of roof sheathing so that joints on adjoining sheets do not occur on the same rafter. Check plan carefully to find out how far roof sheathing should extend out at gable ends.
23. Apply roof shingles (over felt if desired). Follow manufacturer's instructions in bundle. Extend shingles 3/4" beyond face of trim board, and excess of shingles should be cut from inside only in order to maintain a trim appearing edge.
24. Trim out door opening with jacks and casing.

25. Install windows with bottom sill resting on 2"x4" sill plate. Apply aluminum coated Kraft paper over outside stud wall. Start siding at bottom, making sure that first board is level. Check for level at every third board and cut all joints and ends square, staggering joints on side walls.

26. Trim eaves and corners. Install doors.
27. Install garage door following the manufacturer's instruction included with door package.
28. Paint or stain siding and trim as desired.

MATERIAL LIST

Quantity	Size	Description	Board Ft.
1 Pc.	2x4 - 16'	Wall Plate (Treated)	11
4 Pcs.	2x4 - 12'	Wall Plate (Treated)	32
2 Pcs.	2x4 - 10'	Wall Plate (Treated)	13
82 Pcs.	2x4 - 8'	Pre Cut Wall Studs	437
5 Pcs.	2x4 - 16'	Wall Plates	43
4 Pcs.	2x4 - 12'	Wall Plates	32
2 Pcs.	2x4 - 10'	Wall Plates	13
4 Pcs.	2x4 - 8'	Wall Plates	21
4 Pcs.	2x12-10'	Header over Garage Door	80
4 Pcs.	2x4 - 10'	Header Blocking	27
1 Pc.	2x4 - 8'	Header over Door	5
2 Pcs.	2x4 - 16'	Garage Door Hardware Surround	21
2 Pcs.	2x4 - 10'	Garage Door Hardware Surround	13
6 Pcs.	1x4 - 12'	Corner Braces	24
5 Pcs.	2x6 - 14'	Rafter Ties	70
5 Pcs.	2x6 - 10'	Rafter Ties	50
2 Pcs.	1x6 - 10'	Hangers	10
38 Pcs.	2x6 - 16'	Rafters & Gable Blocking	608
2 Pcs.	1x8 - 14'	Ridge Board	19
2 Pcs.	2x6 - 16'	Gable Blocking	32
5 Pcs.	2x4 - 10'	Hangers	33
8 Pcs.	1x6 - 8'	Collar Ties	32
18 Pcs.	2x4 - 8'	Gable Studs	96
4 Pcs.	2x4 - 14'	Gable Nailer	37
28 Pcs.	4'x8'-1/2"	C-D Exterior Roof Sheathing	896 Sq. Ft.
8 Pcs.	1x8 - 16'	Rake Fascia and Soffit	85
8 Pcs.	1x8 - 14'	Fascia and Soffit	75
64 Lin. Ft.	1 1/2"	Rake Shingle Mold	-
3 Rolls	15'	Roofing Felt	-
9 Sq.	235#	Asphalt Shingles	-
48 Lin. Ft.	2x2	Soffit Nailer	16
2 Rolls	36" Wide	Aluminum Foil Kraft Paper	-
980 Sq. Ft.	7/16x12"	Horizontal Hardboard Siding	980 Sq. Ft.
2	9'0"x7'0"	Sectional Up and Over Garage Door complete with Track and all necessary hardware	-
1	2'8"x6'8"-1-3/8"	Garage Service Door (5 Panel)	-
3	1'10"x2'7-1/2" R.O.	Garage Slip Head Window	-
66 Lin. Ft.	1x4	Brick Mold Casing	-
66 Lin. Ft.	1x4	Door Jamb	22
48 Lin. Ft.	1x4	Shingle Mold Door Stop	-
4 Pcs.	1x4 - 8'	Corner Boards	11
4 Pcs.	1x3 - 8'	Corner Boards	8
1 Pc.	1x12-12'	Gable End Drop	12

Turned Down Concrete Slab

11 Cu. Yds.

Concrete Slab Foundation and Floor, Concrete figures based upon level site conditions with gravel base

576 Sq. Ft. 6"x6"-10"

192 Lin. Ft.

Wire Mesh 1/2" Dia. Reinforcing Bars

OPTIONAL

832 Sq. Ft. 1/2"

Insulating Sheathing

OPTIONAL FOR ALTERNATE FORMED FOUNDATION (Wall Height Figured @ 3/4" High)

3 Cu. Yds.

8 Cu. Yds.

7 Cu. Yds.

Concrete for Footings
Concrete for Walls
Concrete for Floor

Nailing Schedule For Structural Members

Description of Building Materials	Number & Type of Fastener	Spacing of Fasteners
Top or sole plate to stud, end nail	2-16d	-
Stud to sole plate, toe nail	4-8d or 3-16d	-
Doubled studs, face nail	16d	24" o.c.
Doubled top plates, face nail	16d	16" o.c.
Top plates, taps and intersections, face nail	2-16d	-
Continued header, two pieces	16d	16" o.c. along each edge
Ceiling joists to plate, toe nail	2-16d	-
Continuous header to stud, toe nail	4-8d	-
Ceiling joist, taps over partitions, face nail	3-16d	-
Ceiling joist to parallel rafters, face nail	3-16d	-
Rafter to plate, toe nail	2-16d	-
1"x4" brace to each stud and plate, face nail	2-8d	-
Built-up corner studs	16d	30" o.c.
Built-up girder and beams	20d	32" o.c. at top & bottom & staggered 2-20d at ends & at ea. splice
Roof rafters to ridge, valley or hip rafters, toe nail	4-16d 3-16d	-
Collar ties to rafters, face nail	3-8d	-

Description of Building Materials	Description of Fasteners	Spacing of Fasteners
		edges intermediate supports
	roof and wall sheathing to frame:	
1/2 inch - 5/8 inch	6d	6" 12"
	Other wall sheathing	
1/2" Fiberboard Sheathing	1 1/2" galvanized roofing nail 6d common nail	3" 6"

9/95

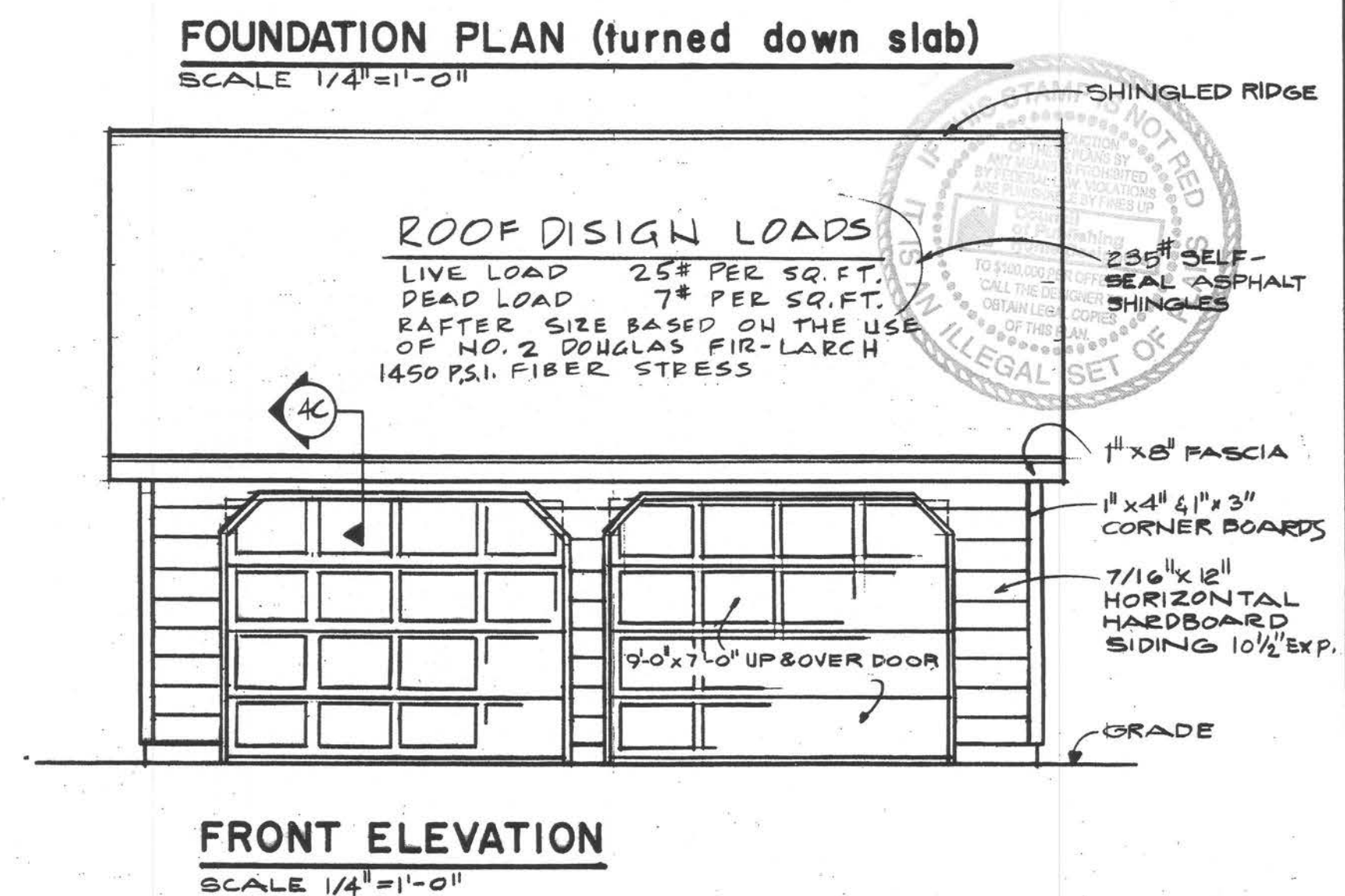
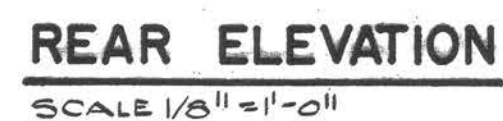
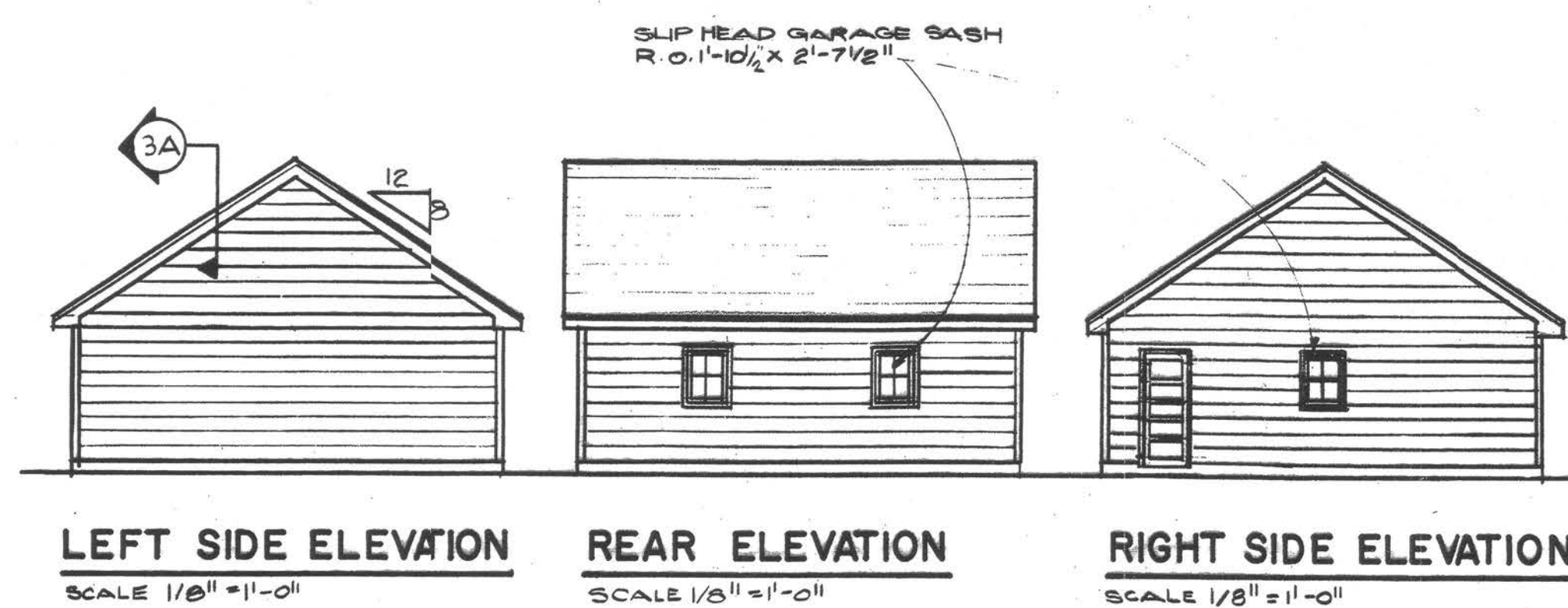
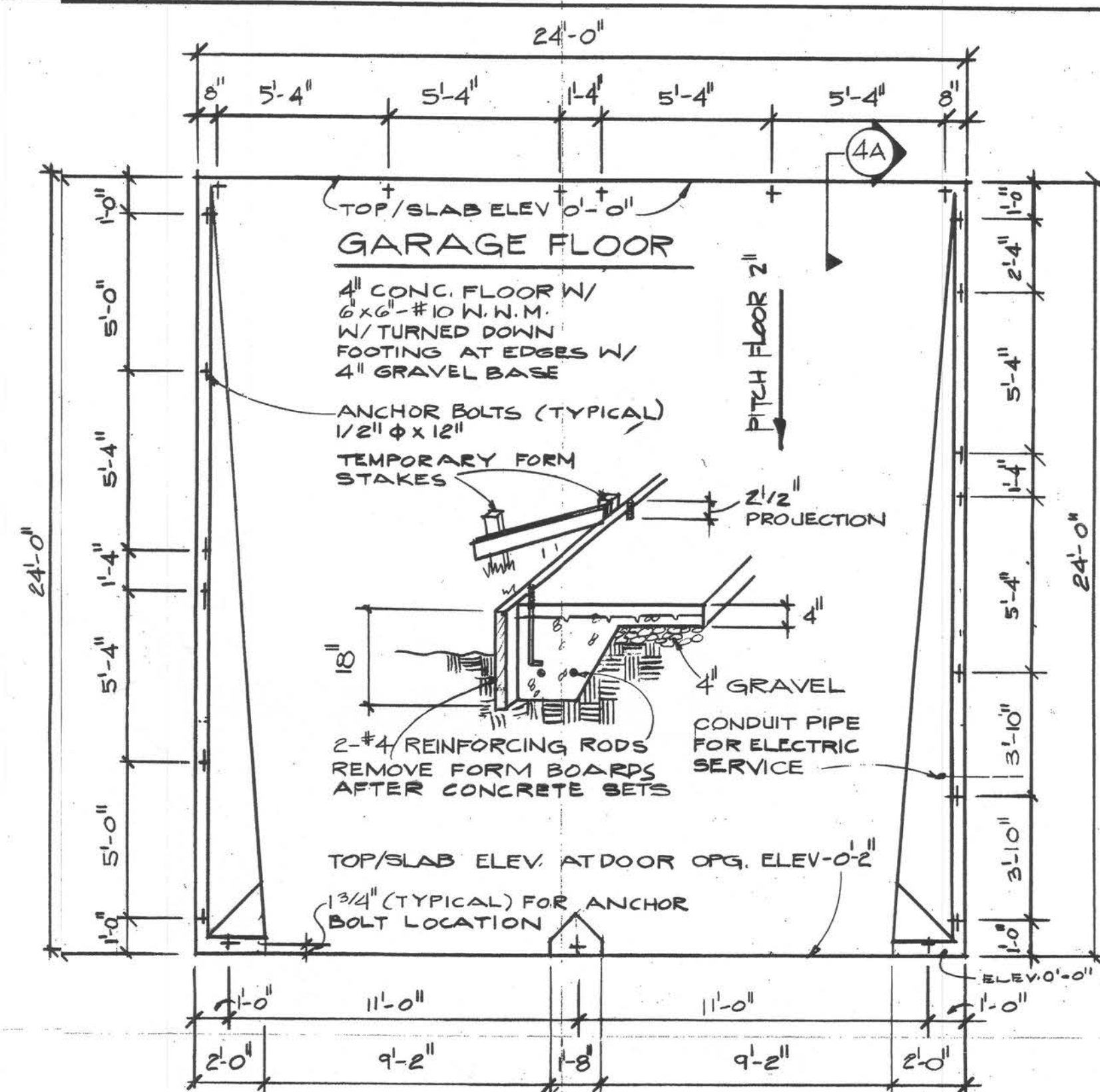
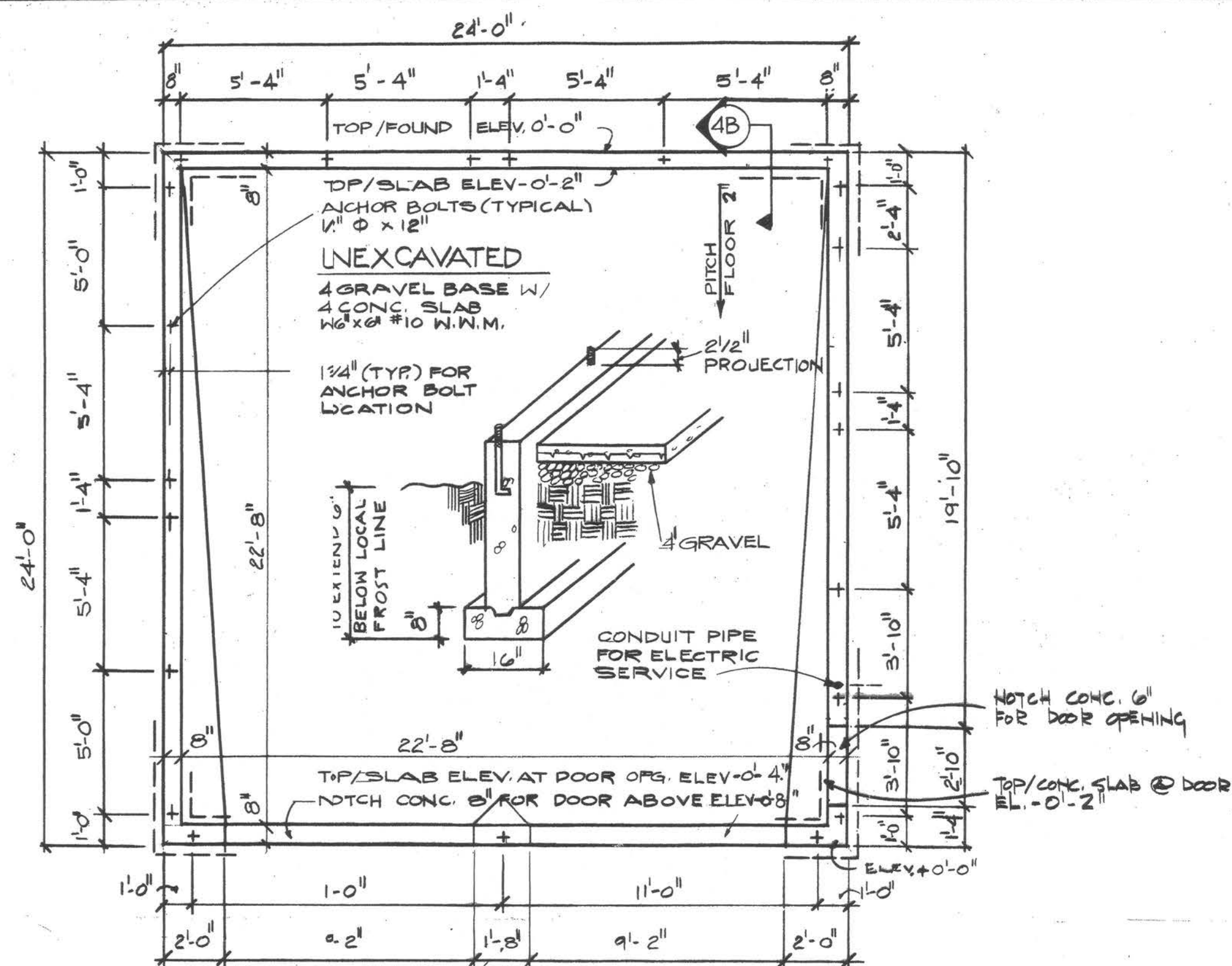
NATIONAL PLAN SERVICE, INC.

This plan has been prepared to meet professional standards of construction. A careful study of plan instructions and dimensions is advised before starting work.

SHEET NO. 1

TOTAL 4

PROJECT PLAN NO. P-2010



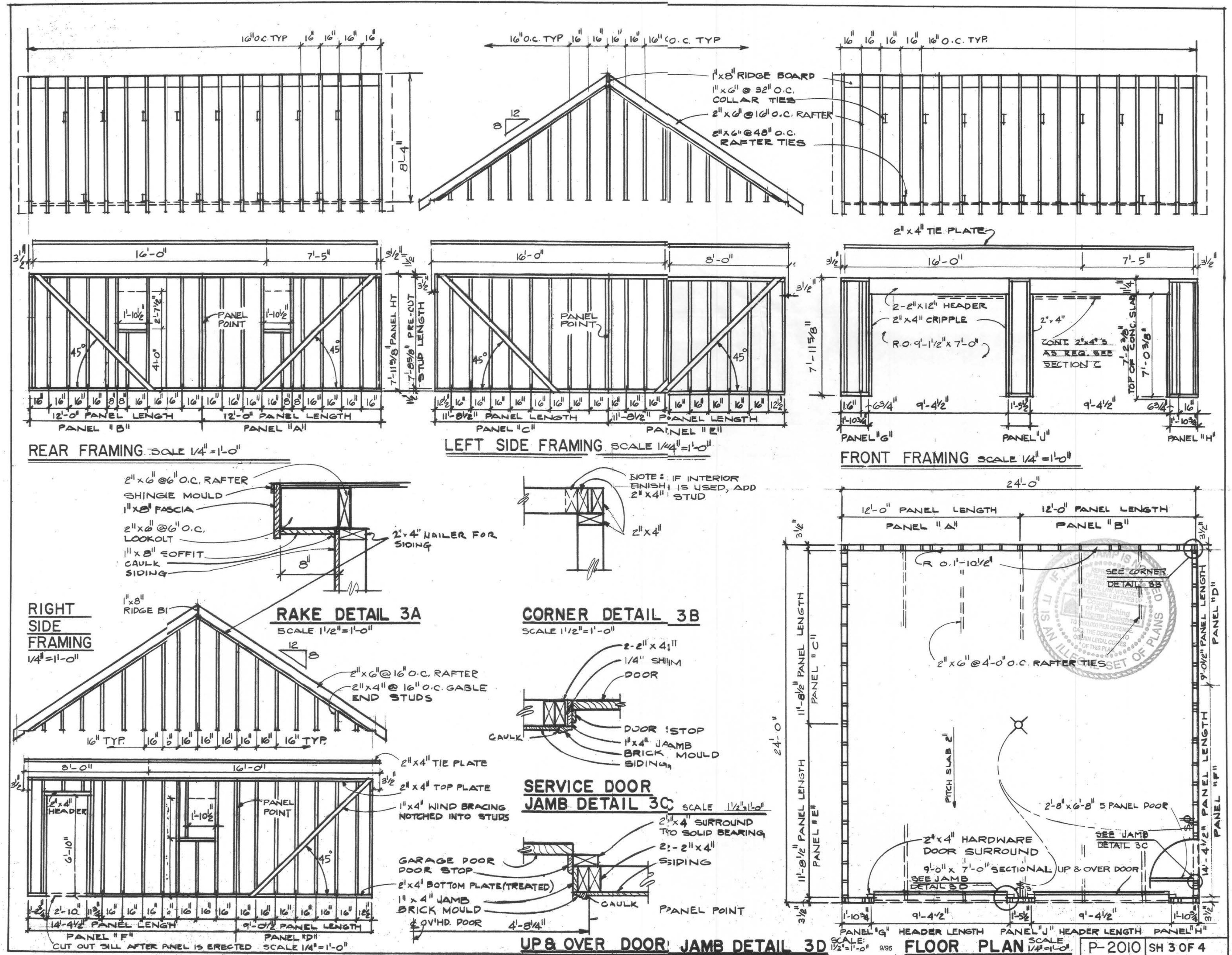
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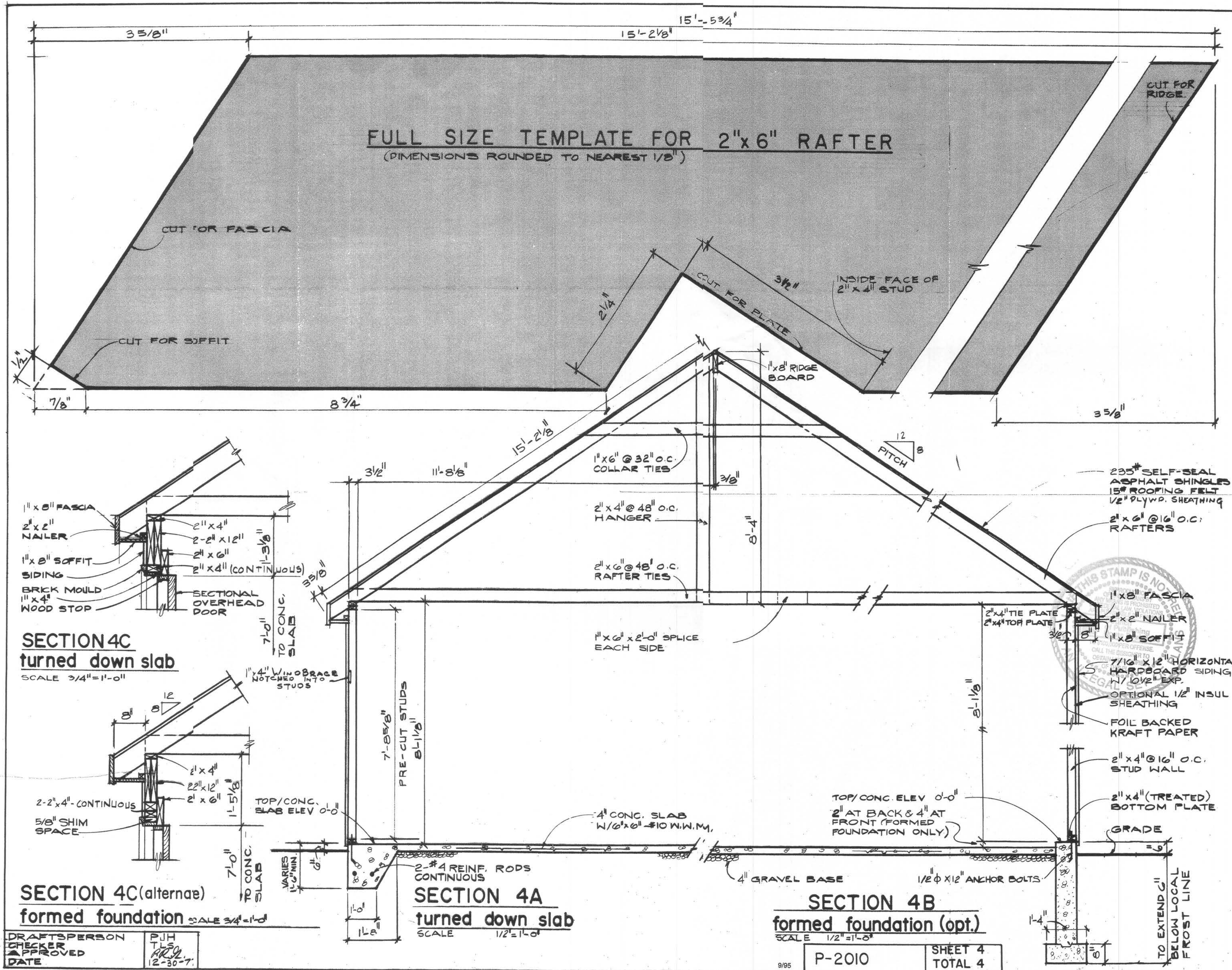
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P-2010

SHEET 2
TOTAL 4





DRAFTSPERSON
CHECKER
APPROVED
DATE

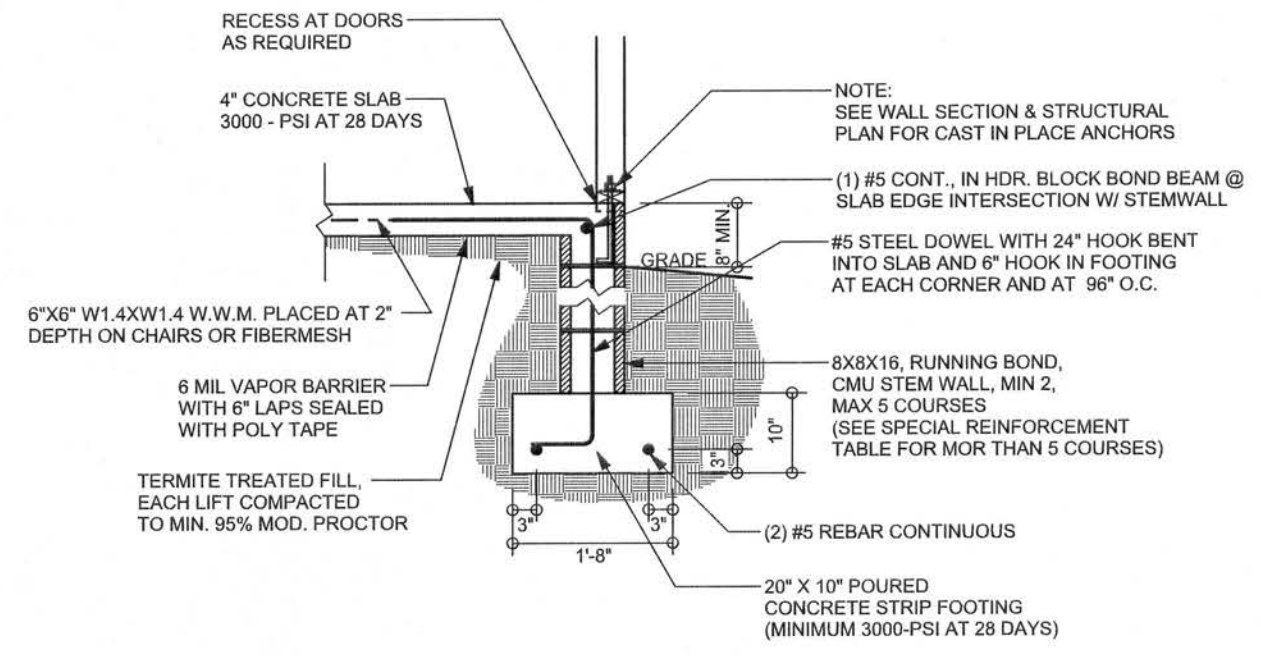
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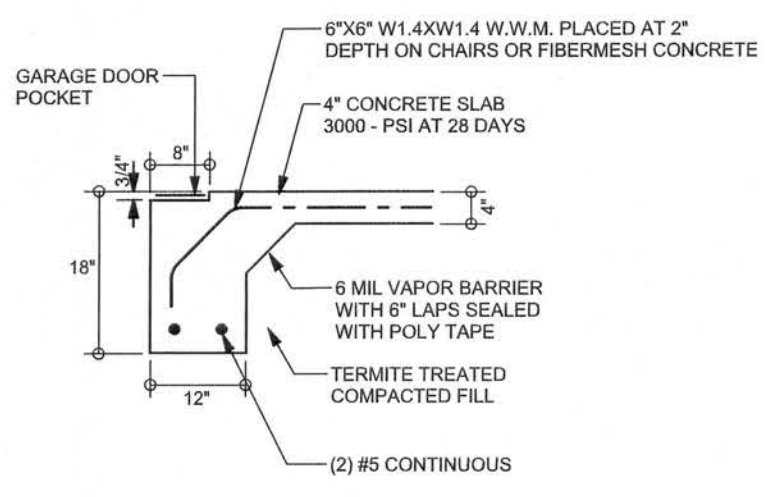
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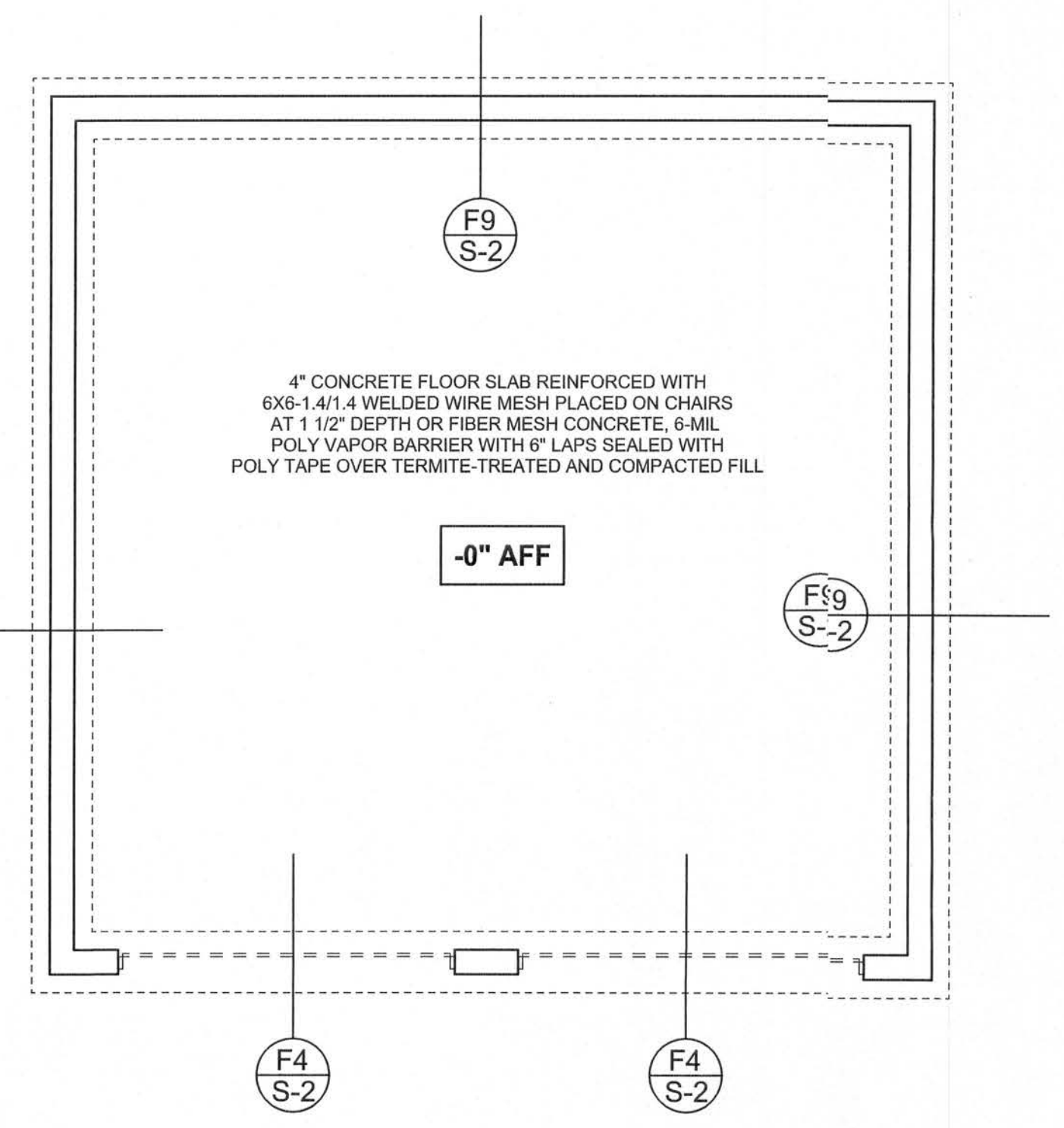
REVISIONS	



F9 S-2 STEM WALL FOOTING
SCALE: 1/2" = 1'-0"



F4 S-2 GARAGE DOOR FOOTING
SCALE: 1/2" = 1'-0"



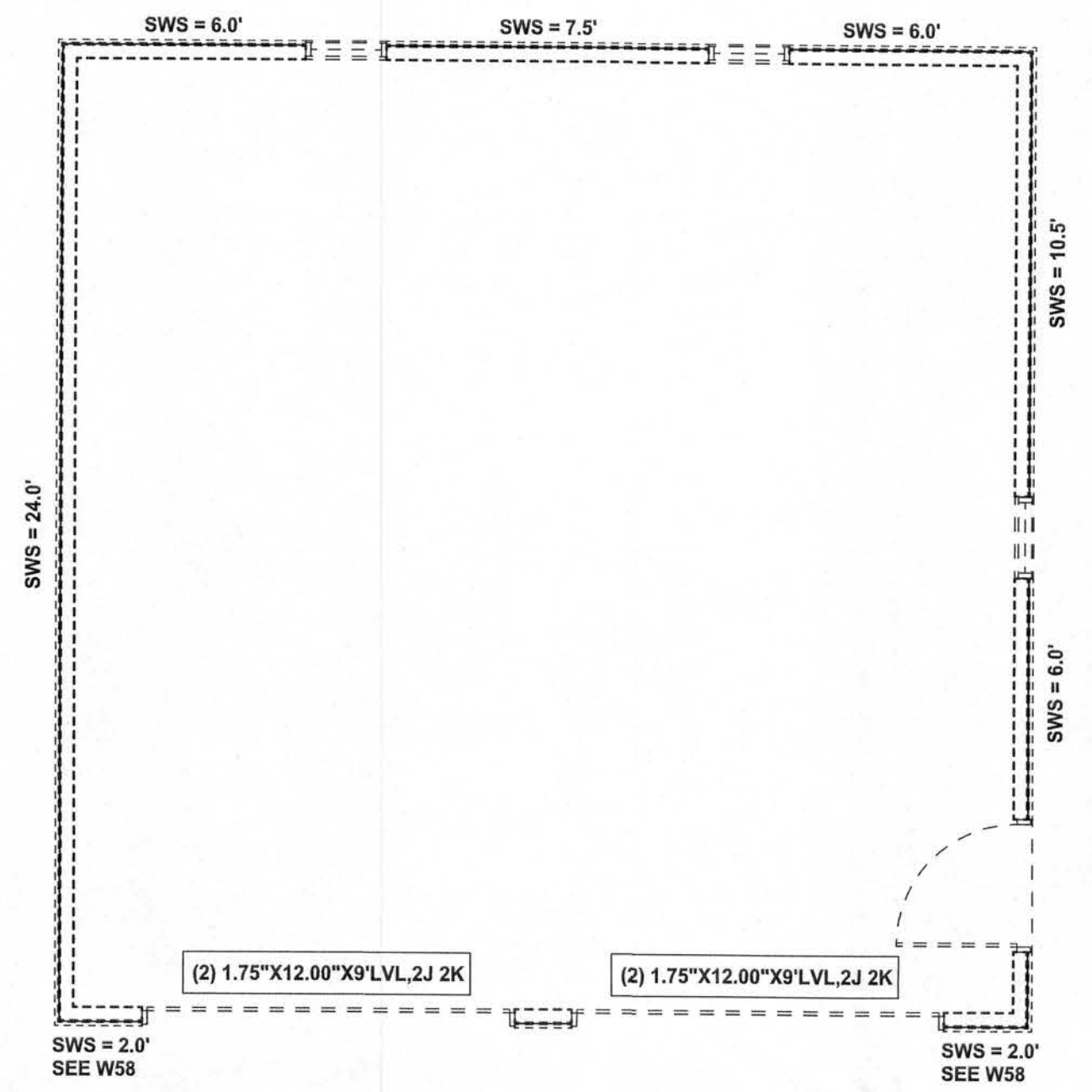
FOUNDATION PLAN
SCALE: 1/4" = 1'-0"
DIMENSIONS ON STRUCTURAL SHEETS ARE NOT EXACT. REFER TO ARCHITECTURAL FLOOR PLAN FOR ACTUAL DIMENSIONS

TALL STEM WALL TABLE

The table assumes 80 ksi reinforcing bars with 6" hook in the footing and bent 24" into the reinforced slab at the top. The vertical steel is to be placed toward the tension side of the CMU wall (away from the soil pressure, within 2" of the exterior side of the wall). If the wall is over 8' high, add diaphragm ladder reinforcement at 16" O.C. vertically or a horizontal bond beam with 1#6 continuous at mid height. For higher parts of the wall 12" CMU may be used with reinforcement as shown in the table below.

STEM WALL HEIGHT (FEET)	UNBALANCED BACKFILL HEIGHT	VERTICAL REINFORCEMENT FOR 8" CMU STEMWALL (INCHES O.C.)			VERTICAL REINFORCEMENT FOR 12" CMU STEMWALL (INCHES O.C.)		
		#5	#7	#8	#5	#7	#8
3.3	3.0	96	96	96	96	96	96
4.0	3.7	96	96	96	96	96	96
4.7	4.3	88	96	96	96	96	96
5.3	5.0	56	96	96	96	96	96
6.0	5.7	40	80	96	80	96	96
6.7	6.3	32	56	80	56	96	96
7.3	7.0	24	40	56	40	80	96
8.0	7.7	16	32	48	32	64	80
8.7	8.3	8	24	32	24	48	64
9.3	9.0	8	16	24	16	40	48

USE H2.5A (5351b) FOR ALL TRUSS TO WALL FRAME AND PORCH BEAM CONNECTIONS UNLESS NOTED OTHERWISE



STRUCTURAL PLAN
SCALE: 1/4" = 1'-0"

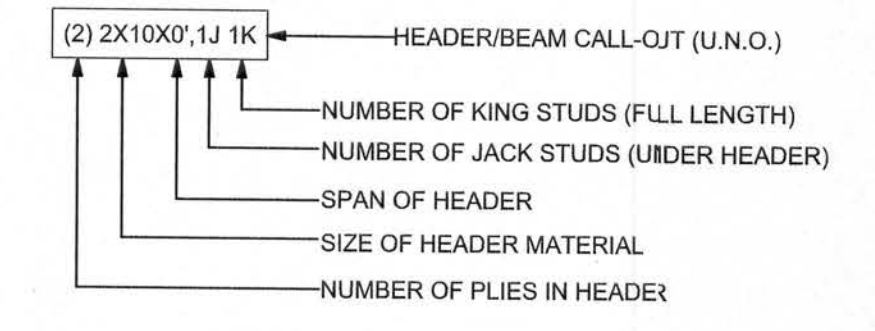
STRUCTURAL PLAN NOTES

- SN-1 ALL LOAD BEARING FRAME WALL & PORCH HEADERS SHALL BE A MINIMUM OF (2) 2X10 SYP #2 (U.N.O.)
- SN-2 ALL LOAD BEARING FRAME WALL HEADERS SHALL HAVE (1) JACK STUD & (1) KING STUD EACH SIDE (U.N.O.)
- SN-3 DIMENSIONS ON STRUCTURAL SHEETS ARE NOT EXACT. REFER TO ARCHITECTURAL FLOOR PLAN FOR ACTUAL DIMENSIONS
- SN-4 PERMANENT TRUSS BRACING IS TO BE INSTALLED AT LOCATIONS AS SHOWN ON THE SEALED TRUSS DRAWINGS. LATERAL BRACING IS TO BE RESTRAINED PER BCSI-03, BCSI-01, BCSI-02, & BCSI-03. BCSI-01, BCSI-02, & BCSI-03 ARE FURNISHED BY THE TRUSS SUPPLIER, WITH THE SEALED TRUSS PACKAGE

WALL LEGEND

SWS = 0.0'	1ST FLOOR EXTERIOR WALL WITH 7/16" O.S.B. WALL SHEATHING FULLY BLOCKED 8d COMMON NAILS 6" O.C. EDGE, 12" O.C. FIELD (U.N.O.)
SWS = 0.0'	2ND FLOOR EXTERIOR WALL WITH 7/16" O.S.B. WALL SHEATHING FULLY BLOCKED 8d COMMON NAILS 6" O.C. EDGE, 12" O.C. FIELD (U.N.O.)
IBW	1ST FLOOR INTERIOR BEARING WALLS SEE DETAILS ON SHEET S-1
IBW	2ND FLOOR INTERIOR BEARING WALLS SEE DETAILS ON SHEET S-1

HEADER LEGEND



TOTAL SHEAR WALL SEGMENTS

SWS = 0.0' INDICATES SHEAR WALL SEGMENT'S

	REQUIRED	ACTUAL
TRANSVERSE	18.2'	40.5'
LONGITUDINAL	12.5'	23.5'

WINDLOAD ENGINEER: Mark Disoway, P.E. No. 53915, PG 866, Lake City, FL 32056, 386-754-9119

DIMENSIONS: Stated dimension supercede scaled dimensions. Refer all questions to Mark Disoway, P.E. for resolution. Do not proceed without clarification.

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CERTIFICATION: I hereby certify that I have examined this plan, and that the applicable portions of the plan, relating to wind engineering comply with section R301.2.1, Florida building code residential 2004, to the best of my knowledge.

LIMITATION: This design is valid for one building, at specified location.

MARK DISOWAY
P.E. 53915

25 SEP 06

SEAL

McMurry Garage

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PRINTED DATE:
September 25, 2006

DRAWN BY: David Disoway

CHECKED BY:

FINALS DATE:
25 / Sep / 06

JOB NUMBER:
609252

DRAWING NUMBER
S-2
OF 2 SHEETS