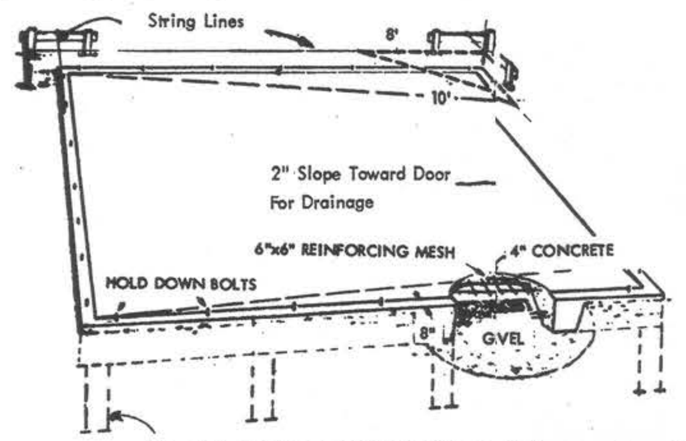
INSTRUCTIONS:

1. Study the plan thoroughly. Be sure to checkour local code requirements and if required obtain a building permit. Omit steps 2 throh 8 if slab is poured by contractor.
2. Locate the garage on your lot to conform toocal code requirements, such as side and rear lot set backs. Allow enough room for easy etrance, exit, or turn around, if possible.
3. Stake out the area as illustrated. Be sure alcorners are square. Remember that dimensions on plan are to outside of concrete and facef 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" mber. Set top of 2" form board to desired floor height and level. Inside face of form boardmust line up exactly with "string lines" set at proper building dimensions.

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

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

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

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

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

7. Pour readymix concrete completely filling fms. 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 2½" above surface.
9. After concrete has set place 2x4 bottom pla on top of bolts with edge of 2x4 flush with outside face of concrete, and tap with a hamer over each bolt to locate position of bolt holes. Drill a 3/4" hole in bottom plate to t over bolts. Check by placing 2x4 plate over bolts and be sure that edge of 2x4 is flush wh face of concrete.

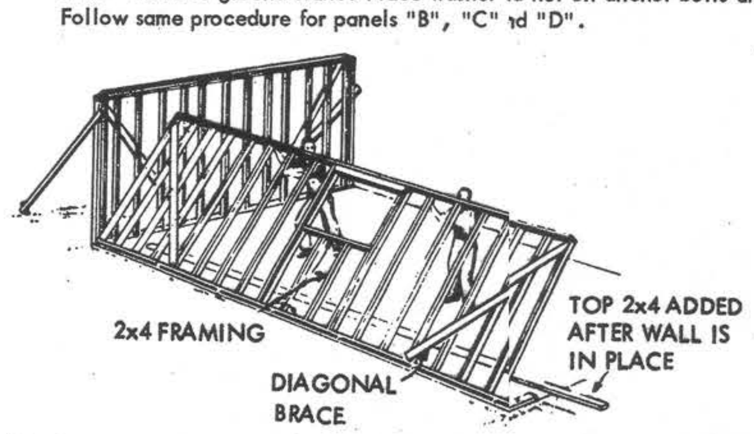
   NOTE: Note that the walls are layed out int least two panels each. This has been done for ease of handling the pre-assembled walls.

   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 themp into position.

10. Lay the predrilled 2"x4" bottom plate and oe 2"x4" top plate for panel "A" side by side and mark position of 2"x4" studs 16" o.c. ashown on panel elevation drawing (note that the first stud space on each end of panels isieasured from the outside face of stud to the center line of the next stud). Assemble wall'anel "A" using pre, cut 2"x4" studs 7'-8 5/8" long. Nail through top and bottom plates in 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 platet a 45 degree angle. Mark 1"x4" position on each stud. With your circular power saw cuinto stud 3/4" at each mark. Using a chisel and hammer knock out the piece of wood leavinga 3/4" recess into which you place the 1"x4" corner brace and nail with two 8 penny nailat each stud and top and bottom plate.

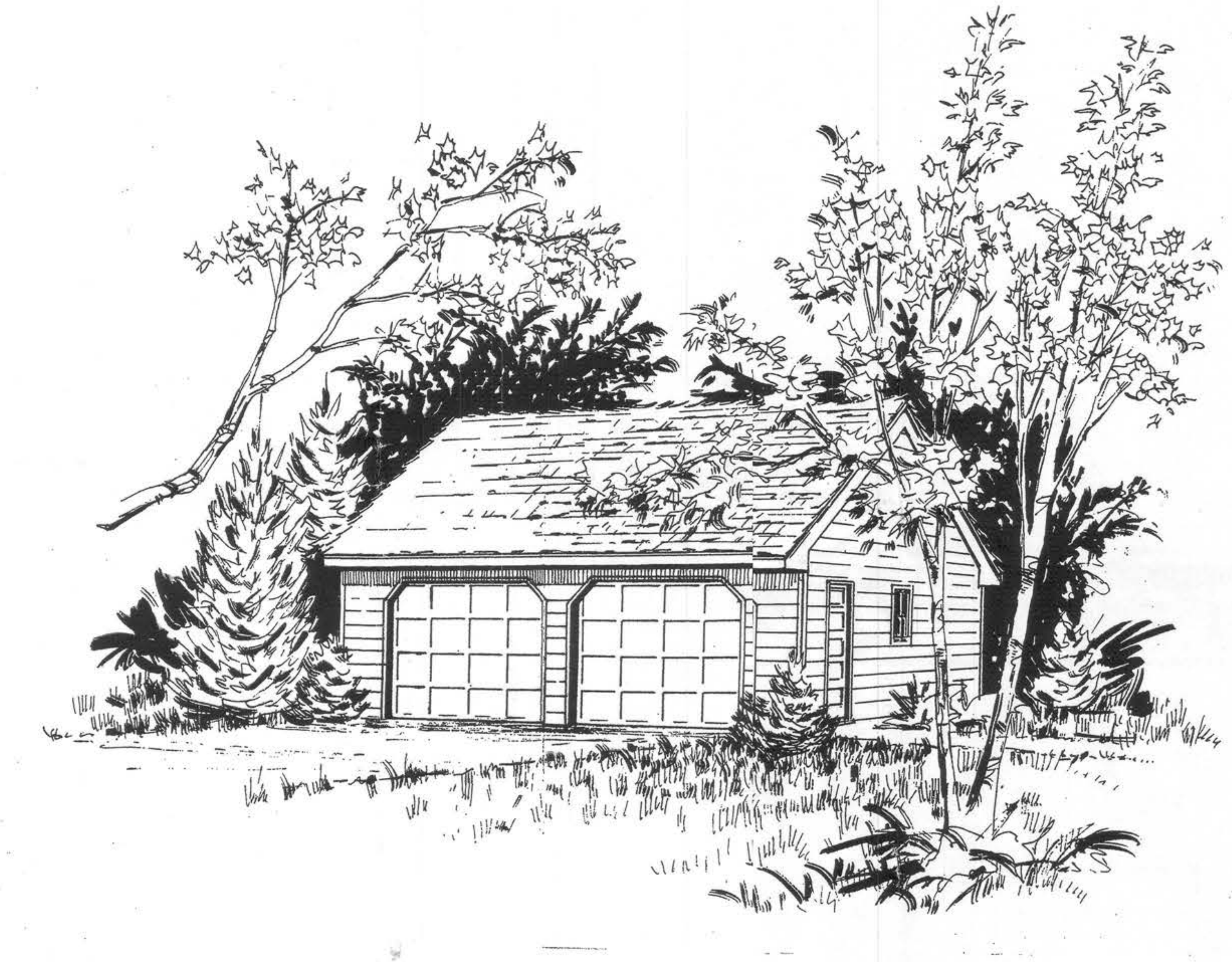
    Repeat steps 10 and 11 for panels "B", "C" nd "D".

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

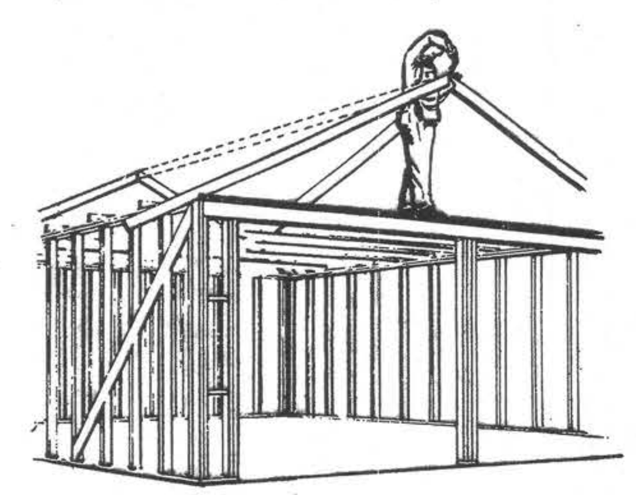


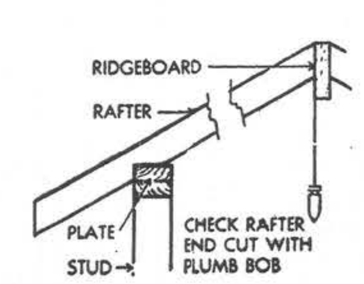
13. Repeat instructions number 10, 11 and 12 forssembly of remaining wall panels. Assemble and erect panels in sequence.
14. As panels are erected you can add the 2"x4"ie plate as shown on wall framing elevations. Nail plate 16" on center with 16 penny nails
15. Cut garage door header to length and nail tother with two 20 penny nails at each end Stagger nail 20 penny nails 32" o.c. along to and bottom of header on both side.
16. Nail 2"x4" cripples at each side of door opeing. Lift assembled header into position and rest on cripples and nail to panel studs using 6 penny nails. Nail hardware surround to inside face of cripples (see garage door jan detail).
17. Add 2"x4" tie plate to top remaining wall pals.
18. Lay rafter ties approximately 4' on center acss top plate to form a working platform for rafter erection. Brace ties below if span is to 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 "tack-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 ½" 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 jambs and casing.

    Install windows with bottom sill resting on 2"x4" sill plate.

25. 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.

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" 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	—
face nail	3-16d	—
Collar ties to rafters, face nail	3-8d	—

Description of Building Materials	Description of Fasteners	Spacing of Fasteners: edges	Spacing of Fasteners: intermediate supports
roof and wall sheathing to frame:			
½ inch - ⅝ inch	6d	6"	12"
Other wall sheathing			
½" Fiberboard Sheathing	1½" galvanized roofing nail 6d common nail	3"	6"

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'	Splice Plate	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.		Rake Shingle Mold	-
3 Rolls	15#	Roofing Felt	-
9 Sqs.	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 10 1/2" Exp.	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.		Brick Mold Casing	-
66 Lin. Ft.	1x4	Door Jambs	22
48 Lin. Ft.		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
NAILS			
2 lbs.		20d Common Nails Coated	
16 lbs.		16d Common Nails Coated	
2 lbs.		10d Common Nails Coated	
4 lbs.		8d Common Nails Coated	
8 lbs.		7d Common Nails Coated	
10 lbs.		8d Galvanized Siding Nails	
29 lbs.		7/8" Galvanized Roofing Nails	
3 lbs.		8d Finish Nails	
22	1/2" dia. x 12"	Anchor Bolts with Nuts and Washers	
1		Key In Knob Cylinder Lockset	
1 Pr.	3 1/2"x3 1/2"	Door Butts	
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#	Wire Mesh	
192 Lin. Ft.		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.		Concrete for Footings	
8 Cu. Yds.		Concrete for Walls	
7 Cu. Yds.		Concrete for Floor	

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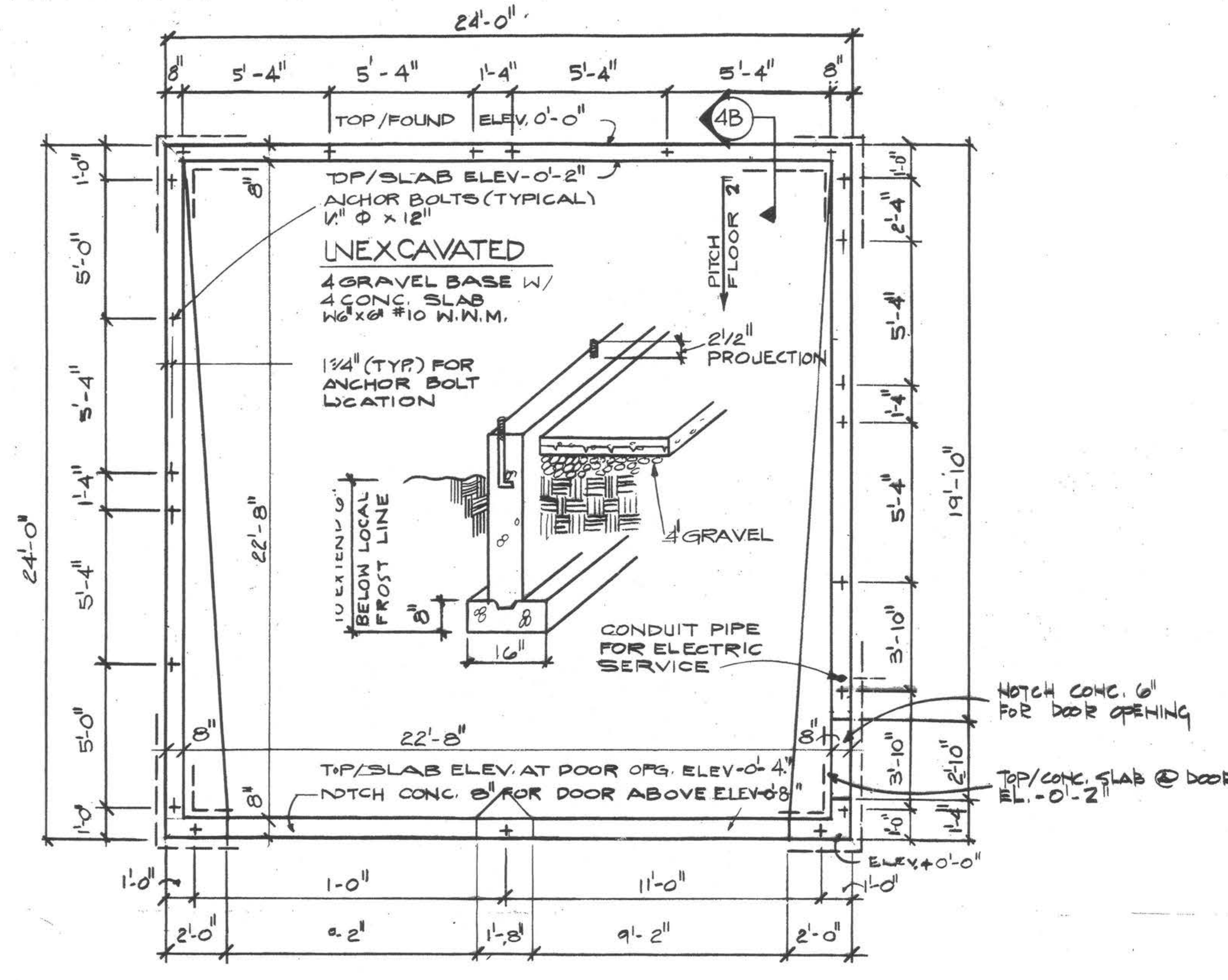
NATIONAL PLAN SERVICE, INC.

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

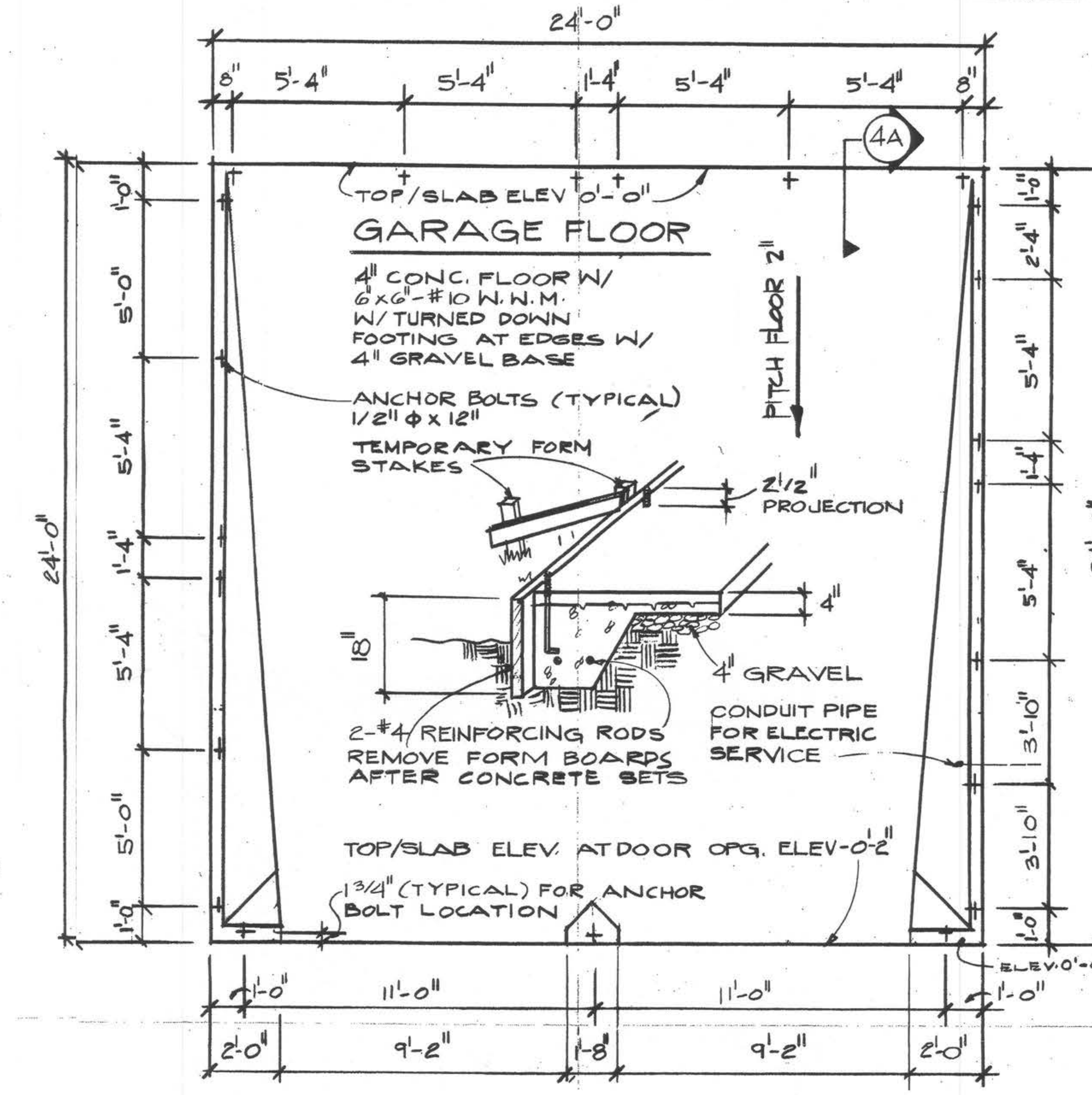
SHEET NO. 1
TOTAL 4

PROJECT PLAN NO. **P-2010**



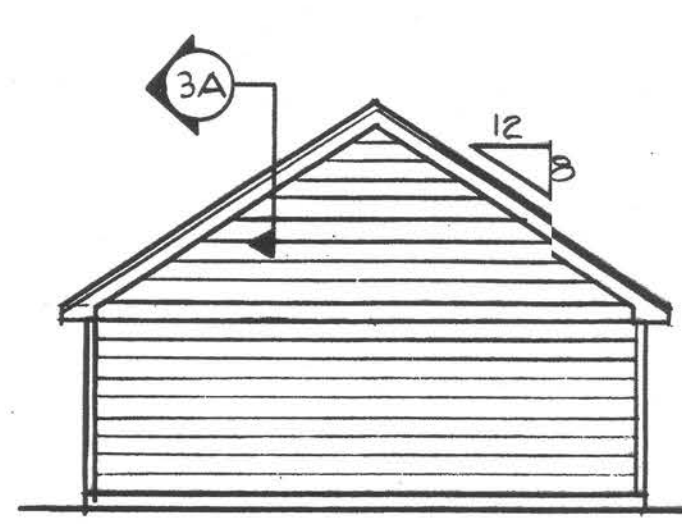
FOUNDATION PLAN (formed concrete)

SCALE 1/4" = 1'-0"



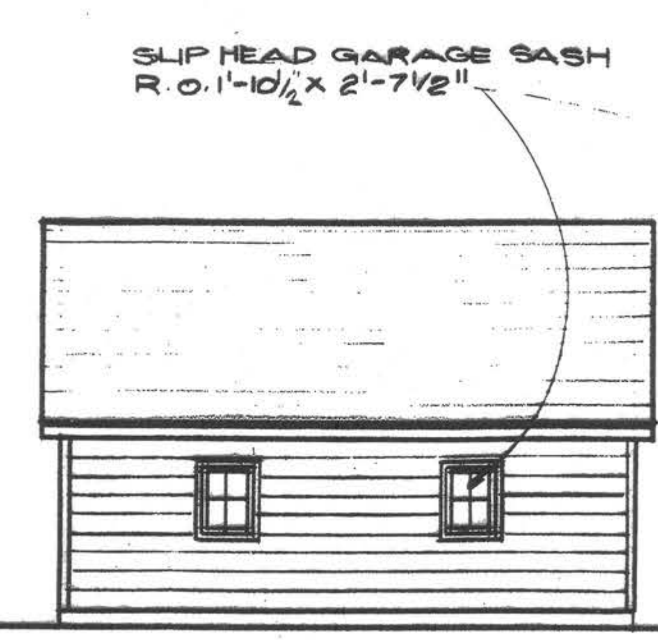
FOUNDATION PLAN (turned down slab)

SCALE 1/4" = 1'-0"



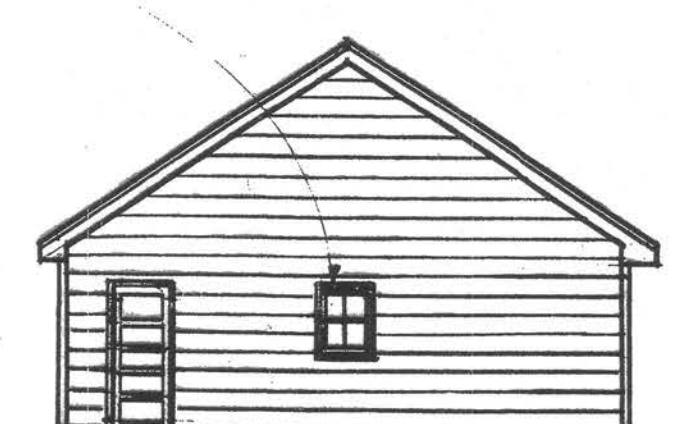
LEFT SIDE ELEVATION

SCALE 1/8" = 1'-0"



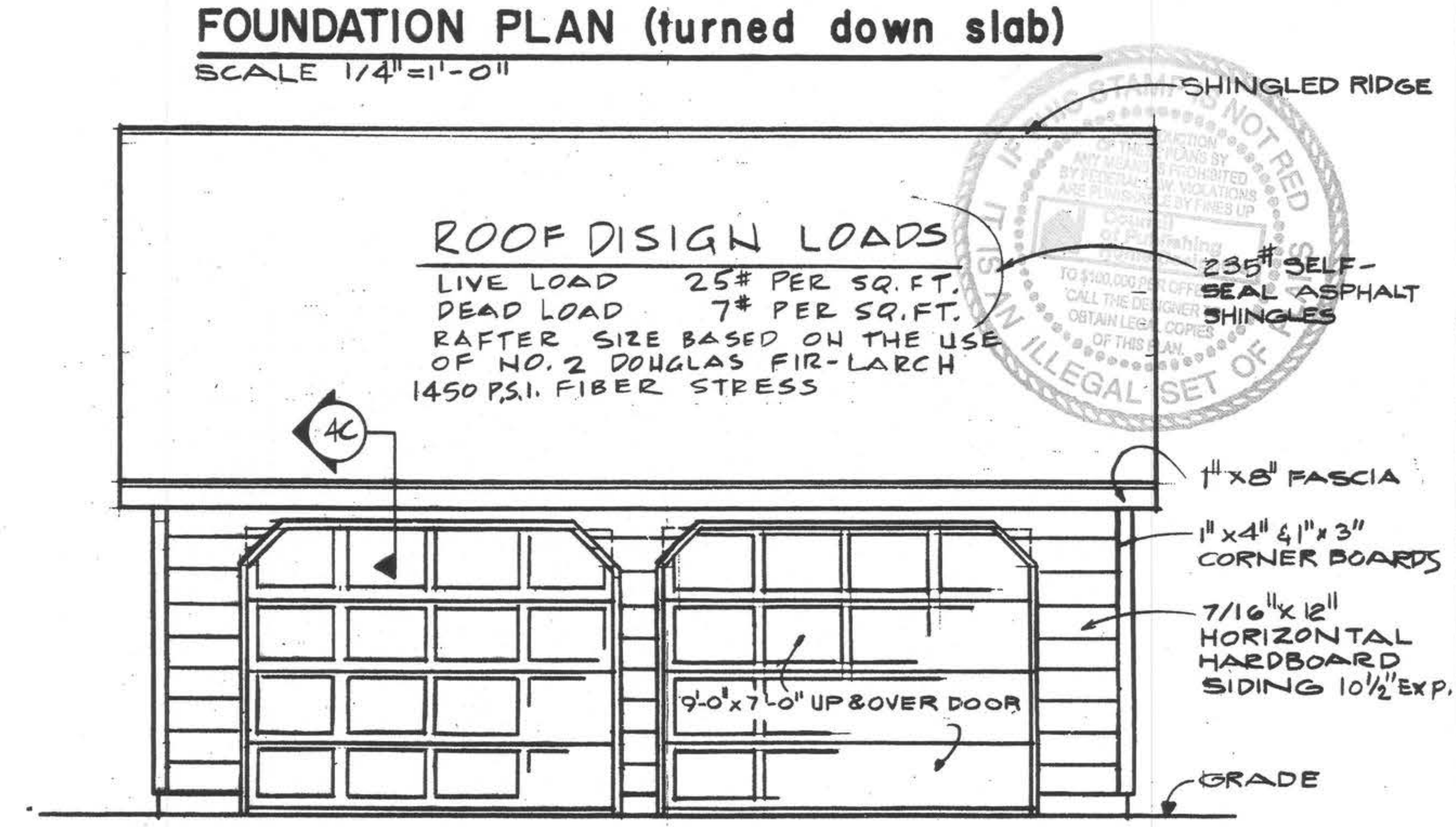
REAR ELEVATION

SCALE 1/8" = 1'-0"



RIGHT SIDE ELEVATION

SCALE 1/8" = 1'-0"



FRONT ELEVATION

SCALE 1/4" = 1'-0"

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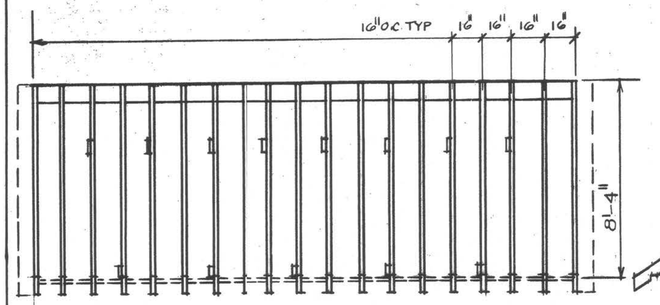
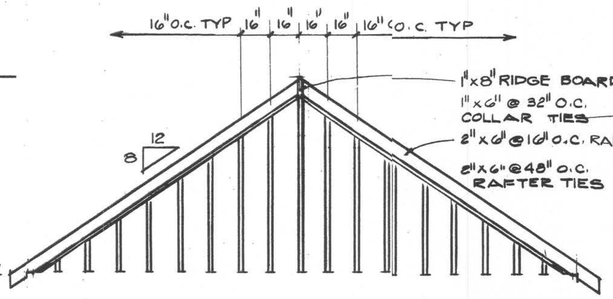
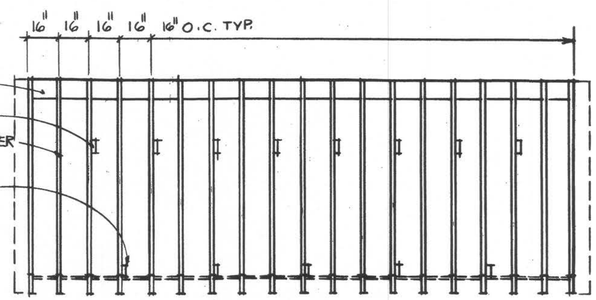
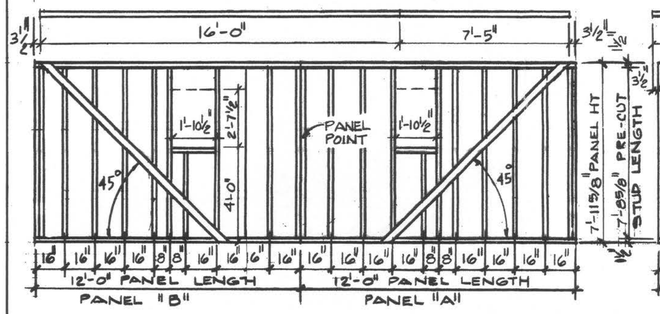
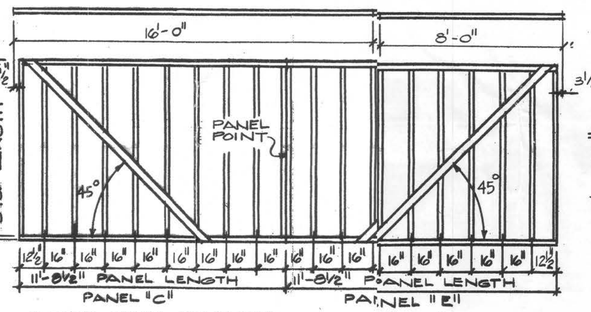




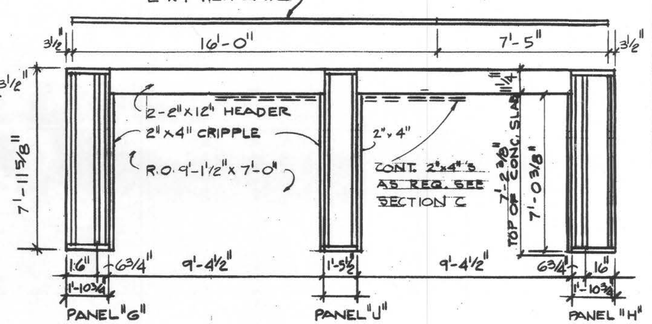




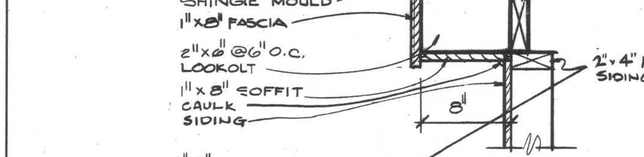
REAR FRAMING SCALE 1/4" = 1'-0"

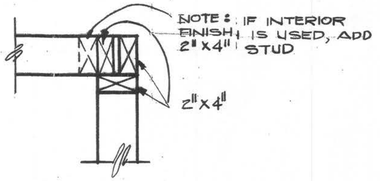


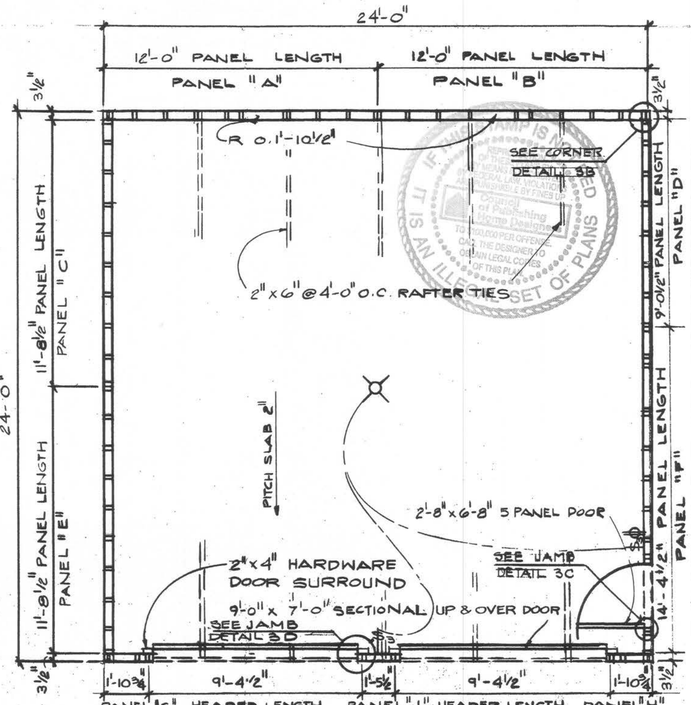
LEFT SIDE FRAMING SCALE 1/4" = 1'-0"



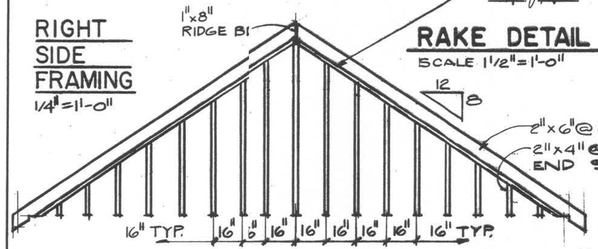
FRONT FRAMING SCALE 1/4" = 1'-0"



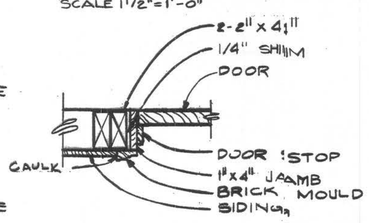




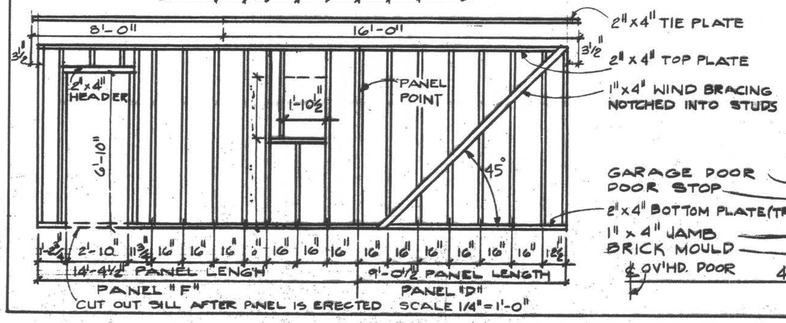
RIGHT SIDE FRAMING
1/4" = 1'-0"



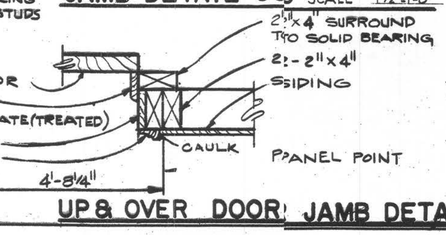
RAKE DETAIL 3A
SCALE 1½" = 1'-0"



CORNER DETAIL 3B
SCALE 1½" = 1'-0"



CUT OUT SILL AFTER PANEL IS ERECTED SCALE 1/4" = 1'-0"



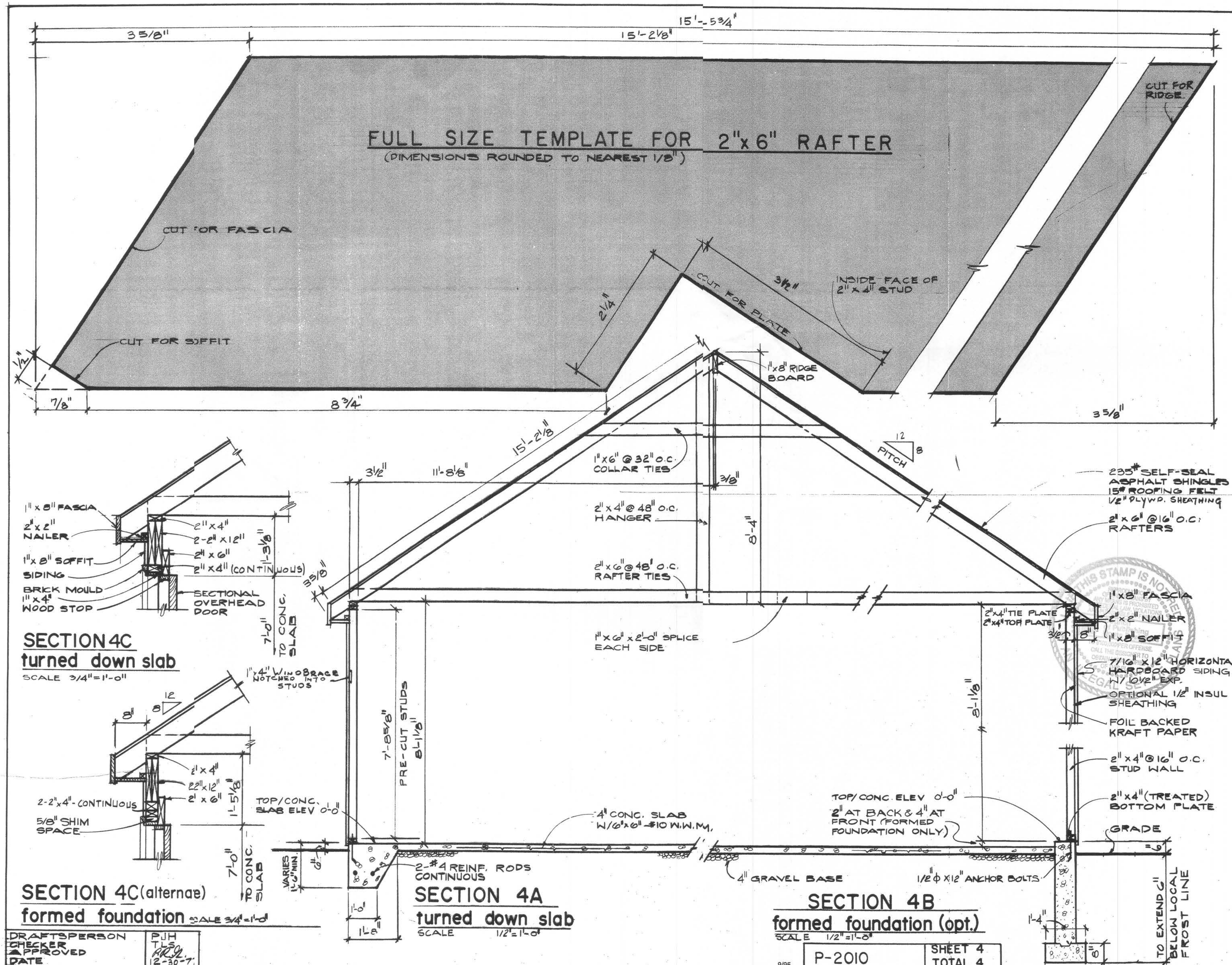
SERVICE DOOR JAMB DETAIL 3C
SCALE 1½" = 1'-0"

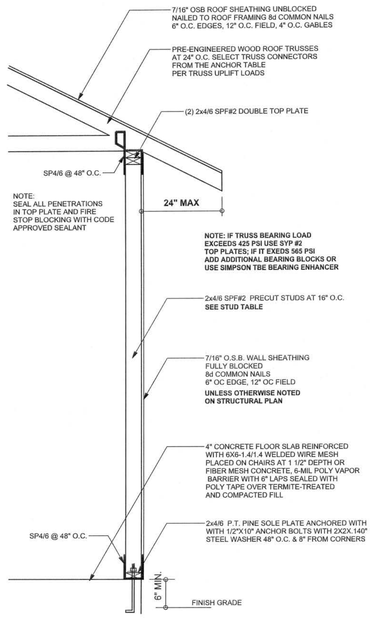
UP & OVER DOOR JAMB DETAIL 3D
SCALE: 1½" = 1'-0"

9/95

FLOOR PLAN
SCALE 1/4" = 1'-0"

P-2010 | SH 3 OF 4


FULL SIZE TEMPLATE FOR 2"x 6" RAFTER
(DIMENSIONS ROUNDED TO NEAREST 1/8")
15'-5 3/4"
3 5/8"
15'-2 1/8"
CUT FOR RIDGE
CUT FOR FASCIA
CUT FOR SOFFIT
CUT FOR PLATE
INSIDE FACE OF 2" x 4" STUD
3 1/2"
2 1/4"
1/2"
7/8"
8 3/4"
3 5/8"
1"x8" RIDGE BOARD
15'-2 1/8"
3 1/2"
11'-8 1/8"
1"x6" @ 32" O.C. COLLAR TIES
3/8"
12
PITCH
8
235# SELF-SEAL ASPHALT SHINGLES
15# ROOFING FELT
1/2" PLYWD. SHEATHING
2" x 4" @ 48" O.C. HANGER
8'-4"
2" x 6" @ 16" O.C. RAFTERS
2" x 6" @ 48" O.C. RAFTER TIES
1" x 8" FASCIA
2" x 2" NAILER
1" x 8" SOFFIT
2"x4" TIE PLATE
2"x4" TOP PLATE
3/8"
8'
1" x 6" x 2'-0" SPLICE EACH SIDE
7/16" x 12" HORIZONTAL HARDBOARD SIDING W/ 10 1/2" EXP.
OPTIONAL 1/2" INSUL SHEATHING
FOIL BACKED KRAFT PAPER
2" x 4" @ 16" O.C. STUD WALL
2" x 4" (TREATED) BOTTOM PLATE
GRADE
8'-1 1/8"
7'-8 5/8"
PRE-CUT STUDS 8'-1 1/8"
3 5/8"
1" x 8" FASCIA
2" x 2" NAILER
1" x 8" SOFFIT
SIDING
BRICK MOULD
1" x 4" WOOD STOP
2" x 4"
2-2" x 12"
2" x 6"
2" x 4" (CONTINUOUS)
1'-3 1/8"
SECTIONAL OVERHEAD DOOR
7'-0" TO CONC. SLAB
SECTION 4C
turned down slab
SCALE 3/4" = 1'-0"
1" x 4" WIND BRACE NOTCHED INTO STUDS
8"
8
12
2" x 4"
2-2" x 12"
2" x 6"
2-2" x 4" - CONTINUOUS
5/8" SHIM SPACE
1'-5 1/8"
7'-0" TO CONC. SLAB
SECTION 4C (alternate)
formed foundation SCALE 3/4" = 1'-0"
TOP/CONC. SLAB ELEV 0'-0"
VARIES 1'-0" MIN.
6"
1'-0"
1'-8"
2-#4 REINF. RODS CONTINUOUS
4" CONC. SLAB W/ 6"x6" #10 W.W.M.
4" GRAVEL BASE
SECTION 4A
turned down slab
SCALE 1/2" = 1'-0"
TOP/CONC. ELEV 0'-0"
2" AT BACK & 4" AT FRONT (FORMED FOUNDATION ONLY)
1/2" ϕ x 12" ANCHOR BOLTS
SECTION 4B
formed foundation (opt.)
SCALE 1/2" = 1'-0"
1'-4"
8"
TO EXTEND 6" BELOW LOCAL FROST LINE
DRAFTSPERSON PJH
CHECKER TLS
APPROVED
DATE 12-30-7
9/95
P-2010
SHEET 4
TOTAL 4



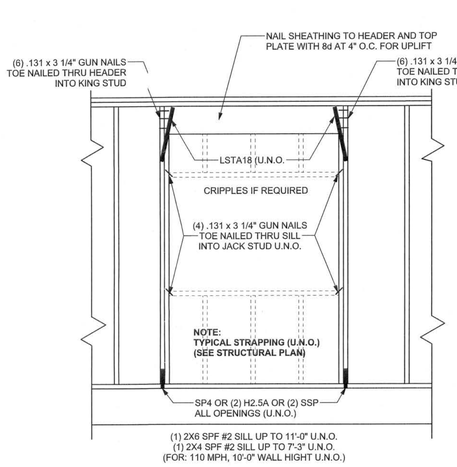
ONE STORY WALL SECTION

SCALE: 3/4" = 1'-0"

EXTERIOR WALL STUD TABLE FOR SPF #2 STUDS

(1) 2x4 @ 16" OC	TO 11'-9" STUD HEIGHT
(1) 2x4 @ 12" OC	TO 13'-0" STUD HEIGHT
(1) 2x6 @ 16" OC	TO 18'-10' STUD HEIGHT
(1) 2x6 @ 12" OC	TO 20.0' STUD HEIGHT

THIS STUD HEIGHT TABLE IS PER WFCM 2001, TABLE 3.20B, EXTERIOR LOAD BEARING & NON LOAD BEARING STUD LENGTHS RESISTING INTERIOR ZONE WINDLOADS 110 MPH EXPOSURE B. STUD SPACING IS SHALL BE MULTIPLIED BY 0.85 FOR FRAMING LOCATED WITHIN 4 FEET OF CORNERS FOR END ZONE LOADING. EXAMPLE 16" O.C. x 0.85 = 13.6" O.C.



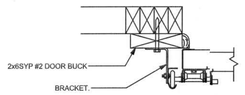
T'PICAL HEADER STRAPING DETAIL

SCLE: 1/2" = 1'-0"

2x6 SYP #2 GARAGE DOOR BUCK ; ATTACHMENT

ATTACH GARAGE DOOR BUCK TO STUD PACK AT EACH SIDE OF DOOR OPENING WITH 3/8"x4" LAG SCREWS w/ 1" WASHER LAG SCREWS MAY NOT BE COUNTERSUNK. HORIZONTAL JAMBS DO NOT TRANSFER LOAD. CENTER LAG SCREWS C OR STAGGER 16d NAILS OR (2) ROWS OF .131 x 3 1/4" GN PER TABLE BELOW:

DOOR WIDTH	3/8" x 4" LAG	16d STAGGER	(2) ROWS OF .131 x 3 1/4" GN
8' - 10'	24" O.C.	5" O.C.	5" O.C.
11' - 15'	18" O.C.	4" O.C.	4" O.C.
16' - 18'	16" O.C.	3" O.C.	3" O.C.

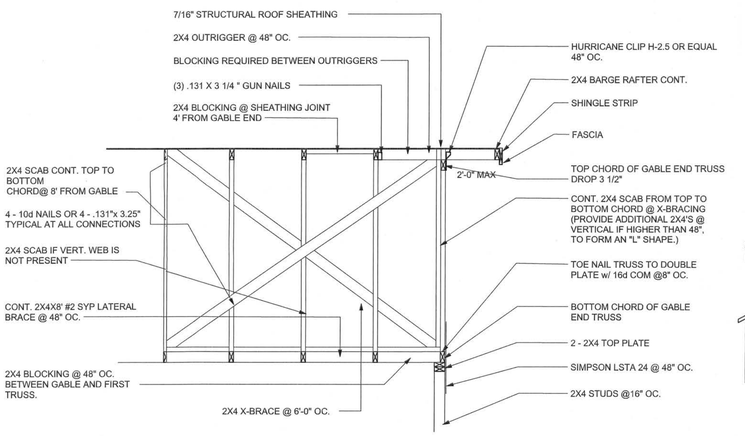


GARAGE DOOR BUCK INSTAL LATION DETAIL

SCALE: N.T.S.

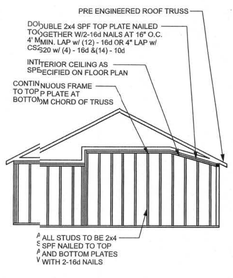
GRADE & SPECIES TABLE

		Fb (psi)	E (10^6 psi)
2x8	SYP #2	1200	1.6
2x10	SYP #2	1050	1.6
2x12	SYP #2	975	1.6
GLB	24F-V3 SP	2400	1.8
LSL	TIMBERSTRAND	1700	1.7
LVL	MICROLAM	1600	1.9
PSL	PARALAM	2900	2.0



T'YPICAL GABLE END (X-BRACING)

ALL MEMBERS SHALL BE SYP



C'ONTINUOUS FRAME TO CEILING DIAPHRAGM DETAIL

SCALE: N.T.S.

GENERAL NOTES:

TRUSSES: TRUSSES SHALL BE DESIGNED BY A FLORIDA LICENSED ENGINEER IN ACCORDANCE WITH THE FBCR 2004. TRUSS ENGINEERING SHALL INCLUDE TRUSS DESIGN, PLACEMENT PLANS, TEMPORARY AND PERMANENT BRACING DETAILS, TRUSS-TO-TRUSS CONNECTIONS, AND UPLIFT AND REACTION LOADS FOR ALL BEARING LOCATIONS. TRUSS ENGINEERING IS THE RESPONSIBILITY OF THE TRUSS MANUFACTURER AND SHALL BE SIGNED & SEALED BY THE MANUFACTURER'S DESIGN ENGINEER. IT IS THE BUILDER'S RESPONSIBILITY VERIFY THE TRUSS DESIGNER FULLY SATISFIED ALL THE ABOVE REQUIREMENTS AND TO SELECT UPLIFT CONNECTIONS BASED ON TRUSS ENGINEERING UPLIFT AND PROVIDE FOOTINGS FOR INTERIOR BEARING WALLS. BUILDER IS TO FURNISH TRUSS ENGINEERING TO WIND LOAD ENGINEER FOR REVIEW OF TRUSS REACTIONS ON THE BUILDING STRUCTURE. STRAP 2X6 RAFTERS WITH MIN UPLIFT CONNECTION 415LB EACH END; 2X8 RAFTERS 700 LB EACH END.

SITE PREPARATION: SITE ANALYSIS AND PREPARATION IS NOT PART OF THIS PLAN

FOUNDATION: CONFIRM THAT THE FOUNDATION DESIGN & SITE CONDITIONS MEET GRAVITY LOAD REQUIREMENTS (ASSUME 1000 PSF BEARING CAPACITY UNLESS VISUAL OBSERVATION OR SOILS TEST PROVES OTHERWISE

CONCRETE: MINIMUM COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS, F'c = 3000 PSI.

WELDED WIRE REINFORCED SLAB: 6" x 6" W1.4 x W1.4, FB = 85KSI, WELDED WIRE REINFORCEMENT FABRIC (W.W.M.) CONFORMING TO ASTM A185; LOCATED IN MIDDLE OF THE SLAB; SUPPORTED WITH APPROVED MATERIALS OR SUPPORTS AT SPACINGS NOT TO EXCEED 3'.

FIBER CONCRETE SLAB: CONCRETE SLABS ON GROUND CONTAINING SYNTHETIC FIBER REINFORCEMENT. FIBER LENGTH 1/2 INCH TO 2 INCHES. DOSAGE AMOUNTS FROM 0.75 TO 1.5 POUNDS PER CUBIC YARD PER THE MANUFACTURER'S RECOMMENDATIONS. FIBERS TO COMPLY WITH ASTM C 1116. SUPPLIER TO PROVIDE ASTM C 1116 CERTIFICATION OF COMPLIANCE WHEN REQUESTED BY BUILDING OFFICIAL.

CONTROL JOINTS: WHERE SPECIFIED, SAWN CONTROL JOINTS IN SLAB-ON-GRADE SHALL BE CUT IN ACCORDANCE WITH ACI 302. JOINTS SHALL BE CUT WITHIN 12 HOURS OF SLAB PLACEMENT. THE LENGTH / WIDTH RATIOS OF SLAB AREAS SHALL NOT EXCEED 1.5 AND TYPICAL SPACING OF CUTS TO BE 12FT. DO NOT CUT WWM OR REINFORCING STEEL. (RECOMMENDED LOCATION OF CONTROL JOINTS IS SUBJECT TO OWNER AND CONTRACTOR'S APPROVAL. THE CONTROL JOINTS ARE NOT INTENDED TO PREVENT CRACKS BUT RATHER TO ENCOURAGE THE SLAB TO CRACK ON A GIVEN LINE.)

REBAR: ASTM A 615, GRADE 60, DEFORMED BARS, FY = 60 KSI. ALL LAP SPLICES 40 * DB (25" FOR #5 BARS); UNO. ALL REINFORCEMENT SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH ACI 315-96, U.N.O.

GLULAM BEAMS: GLULAM BEAM, GLB, 24F-V3SP, Fb = 2.4ksi, E = 1800ksi; UNO. SUPPLIER MAY SUPPLY AN ALTERNATE BEAM WITH EQUAL PROPERTIES OR MAY SUBMIT THEIR OWN SIZING CALCS.

ROOF SHEATHING: ALL ROOFS ARE HORIZONTAL DIAPHRAGMS; 7/16" OSB SHEATHING, UNBLOCKED, APPLIED PERPENDICULAR TO FRAMING, OVER A MINIMUM OF 3 FRAMING MEMBERS, WITH PANEL EDGES STAGGERED, FASTENED WITH 8d COMMON NAILS (.131), 6"OC PANEL EDGES, 12"OC INTERMEDIATE MEMBERS, GABLE ENDS AND DIAPHRAGM BOUNDARY; 4"OC, UNO.

STRUCTURAL CONNECTORS: MANUFACTURERS AND PRODUCT NUMBER FOR CONNECTORS, ANCHORS, AND REINFORCEMENT ARE LISTED FOR EXAMPLE NOT ENDORSEMENT, AN EQUIVALENT DEVICE OF THE SAME OR OTHER MANUFACTURER CAN BE SUBSTITUTED FOR ANY DEVICES LISTED IN THE EXAMPLE TABLES AS LONG AS IT MEETS THE REQUIRED LOAD CAPACITIES. MANUFACTURER'S INSTALLATION INSTRUCTIONS MUST BE FOLLOWED TO ACHIEVE RATED LOADS.

ANCHOR BOLTS: A-307 ANCHOR BOLTS WITH MINIMUM EMBEDMENT AS SPECIFIED IN DRAWINGS BUT NO LESS THAN 7" IN CONCRETE OR REINFORCED BOND BEAM OR 15" IN GROUTED CMU.

WASHERS: WASHERS USED WITH 1/2" BOLTS TO BE 2" x 2" x 9/64"; WITH 5/8" BOLTS TO BE 3" x 3" x 9/64"; WITH 3/4" BOLTS TO BE 3" x 3" x 9/64"; WITH 7/8" BOLTS TO BE 3" x 3" x 5/16"; UNO.

NAILS: ALL NAILS ARE COMMON NAILS UNLESS OTHERWISE SPECIFIED OR ACCEPTED BY FBC TEST REPORTS AS HAVING EQUAL STRUCTURAL VALUES.

BUILDER'S RESPONSIBILITY

THE BUILDER AND OWNER ARE RESPONSIBLE FOR THE FOLLOWING, WHICH ARE SPECIFICALLY NOT PART OF THE WIND LOAD ENGINEER'S SCOPE OF WORK.
CONFIRM SITE CONDITIONS, FOUNDATION BEARING CAPACITY, GRADE AND BACKFILL HEIGHT, WIND SPEED AND DEBRIS ZONE, AND FLOOD ZONE.
PROVIDE MATERIALS AND CONSTRUCTION TECHNIQUES, WHICH COMPLY WITH FBCR 2004 REQUIREMENTS FOR THE STATED WIND VELOCITY AND DESIGN PRESSURES.
PROVIDE A CONTINUOUS LOAD PATH FROM TRUSSES TO FOUNDATION. IF YOU BELIEVE THE PLAN OMITS A CONTINUOUS LOAD PATH CONNECTION, CALL THE WIND LOAD ENGINEER IMMEDIATELY.
VERIFY THE TRUSS MANUFACTURER'S SEALED ENGINEERING INCLUDES TRUSS DESIGN, PLACEMENT PLANS, TEMPORARY AND PERMANENT BRACING DETAILS, TRUSS-TO-TRUSS CONNECTIONS, AND UPLIFT AND REACTION LOADS FOR ALL BEARING LOCATIONS.

ROOF SYSTEM DESIGN

THE SEAL ON THESE PLANS FOR COMPLIANCE WITH FBCR 2004, SECTION R301.2.1 IS BASED ON REACTIONS, UPLIFTS, AND BEARING LOCATIONS IN TRUSS ENGINEERING SUBMITTED TO THE WIND LOAD ENGINEER. IT IS THE RESPONSIBILITY OF THE BUILDER TO CHECK ALL DETAILS OF THE COMPLETE ROOF SYSTEM DESIGN SUBMITTED BY THE TRUSS MANUFACTURER AND HAVE IT SIGNED, AND SEALED BY A DESIGN PROFESSIONAL FOR CORRECT APPLICATION OF FBC 2001 REQUIRED LOADS AND ANY SPECIAL LOADS. THE BUILDER IS RESPONIBILE TO REVIEW EACH INDIVIDUAL TRUSS MEMBER AND THE TRUSS ROOF SYSTEM AS A WHOLE AND TO PROVIDE RESTRAINT FOR ANY LATERAL BRACING. THE BUILDER SHOULD USE CARE CHECKING THE ROOF DESIGN BECAUSE THE WIND LOAD ENGINEER IS SPECIFICALLY NOT RESPONSIBLE FOR THE TRUSS LAYOUT WHICH WAS CREATED BY THE TRUSS MANUFACTURER AND THE TRUSS DESIGNER ALSO DENIES RESPONSIBILITY FOR THE LAYOUT PER NOTES ON THEIR SEALED TRUSS SHEETS.

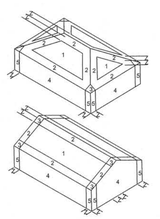
ANCHOR TABLE

OBTAIN UPLIFT REQUIREMENTS FROM TRUSS MANUFACTURER'S ENGINEERING

UPLIFT LBS. SYP	UPLIFT LBS. SPF	TRUSS CONNECTOR*	TO PLATES	TO RAFTER/TRUSS	TO STUDS
< 420	< 245	H5A	3-8d	3-8d	
< 455	< 265	H5	4-8d	4-8d	
< 360	< 235	H4	4-8d	4-8d	
< 455	< 320	H3	4-8d	4-8d	
< 415	< 365	H2.5	5-8d	5-8d	
< 600	< 535	H2.5A	5-8d	5-8d	
< 950	< 820	H6	8-8d	8-8d	
< 745	< 565	H8	5-10d, 1 1/2"	5-10d, 1 1/2"	
< 1465	< 1050	H14-1	13-8d	12-8d, 1 1/2"	
< 1465	< 1050	H14-2	15-8d	12-8d, 1 1/2"	
< 990	< 850	H10-1	8-8d, 1 1/2"	8-8d, 1 1/2"	
< 760	< 655	H10-2	6-10d	6-10d	
< 1470	< 1265	H16-1	10-10d, 1 1/2"	2-10d, 1 1/2"	
< 1470	< 1265	H16-2	10-10d, 1 1/2"	2-10d, 1 1/2"	
< 1000	< 860	MTS24C	7-10d 1 1/2"	7-10d 1 1/2"	
< 1450	< 1245	HTS24	12-10d 1 1/2"	12-10d 1 1/2"	
< 2900	< 2490	2 - HTS24			
< 2050	< 1785	LGT2	14 -16d	14 -16d	
		HEAVY GIRDER TIEDOWNS*			**TO FOUNDATION**
< 3965	< 3330	MGT		22 -10d	1-5/8" THREADED ROD 12" EMBEDMENT
< 10980	< 6485	HGT-2		16 -10d	2-5/8" THREADED ROD 12" EMBEDMENT
< 10530	< 9035	HGT-3		16 -10d	2-5/8" THREADED ROD 12" EMBEDMENT
< 9250	< 9250	HGT-4		16 -10d	2-5/8" THREADED ROD 12" EMBEDMENT
		STUD STRAP CONNECTOR*			**TO STUDS**
< 435	< 435	SSP DOUBLE TOP PLATE	3 -10d		4 -10d
< 455	< 420	SSP SINGLE SILL PLATE	1 -10d		4 -10d
< 825	< 825	DSP DOUBLE TOP PLATE	6 -10d		8 -10d
< 825	< 600	DSP SINGLE SILL PLATE	2 -10d		8 -10d
< 885	< 760	SP4			6-10d, 1 1/2"
< 1240	< 1065	SPH4			10-10d, 1 1/2"
< 885	< 760	SP6			6-10d, 1 1/2"
< 1240	< 1065	SPH6			10-10d, 1 1/2"
< 1235	< 1165	LSTA18	14-10d		
< 1235	< 1235	LSTA21	16-10d		
< 1030	< 1030	CS20	18-8d		
< 1705	< 1705	CS16	28-8d		
		STUD ANCHORS*	**TO STUDS**		**TO FOUNDATION**
< 1350	< 1305	LTT19	8-16d		1/2" AB
< 2310	< 2310	LTTI31	18-10d, 1 1/2"		1/2" AB
< 2775	< 2570	HD2A	2-5/8" BOLTS		5/8" AB
< 4175	< 3695	HTT16	18 - 16d		5/8" AB
< 1400	< 1400	PAHD42	16-16d		
< 3335	< 3335	HPAHD22	16-16d		
< 2200	< 2200	ABU44	12-16d		1/2" AB
< 2300	< 2300	ABU66	12-16d		1/2" AB
< 2320	< 2320	ABU88	18 - 16d		2-5/8" AB

DESIGN DATA

WIND LOADS PER FLORIDA BUILDING CODE 2004 RESIDENTIAL, SECTION R301.2.1
(ENCLOSED SIMPLE DIAPHRAGM BUILDINGS WITH FLAT, HIPPED, OR GABLE ROOFS; MEAN ROOF HEIGHT NOT EXCEEDING LEAST HORIZONTAL DIMENSION OR 60 FT; NOT ON UPPER HALF OF HILL OR ESCARPMENT 60FT IN EXP. B, 30FT IN EXP. C AND >10% SLOPE AND UNOBSTRUCTED UPWIND FOR 50x HEIGHT OR 1 MILE WHICHEVER IS LESS.)
BUILDING IS NOT IN THE HIGH VELOCITY HURRICANE ZONE
BUILDING IS NOT IN THE WIND-BORNE DEBRIS REGION
1.) BASIC WIND SPEED = 110 MPH
2.) WIND EXPOSURE = B
3.) WIND IMPORTANCE FACTOR = 1.0
4.) BUILDING CATEGORY = II
5.) ROOF ANGLE = 10-45 DEGREES
6.) MEAN ROOF HEIGHT = <30 FT
7.) INTERNAL PRESSURE COEFFICIENT = N/A (ENCLOSED BUILDING)
8.) COMPONENTS AND CLADDING DESIGN WIND PRESSURES (TABLE R301.2(2))



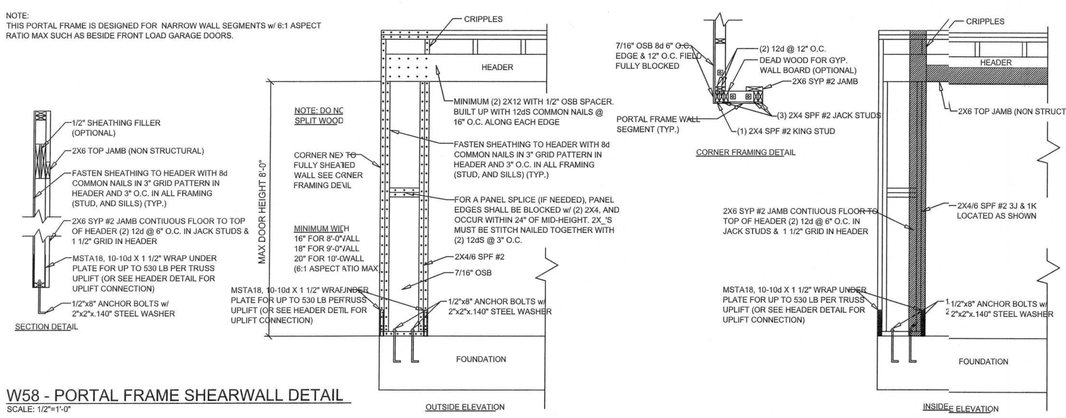
Zone	Effective Wind Area (ft2)			
	10		100	
1	19.9	-21.8	18.1	-18.1
2	19.9	-25.5	18.1	-21.8
2 O'hg		-40.6		-40.6
3	19.9	-25.5	18.1	-21.8
3 O'hg		-68.3		-42.4
4	21.8	-23.6	18.5	-20.4
5	21.8	-29.1	18.5	-22.6
Doors & Windows Worst Case (Zone 5, 10 ft2)		21.8		-29.1
8x7 Garage Door		19.5		-22.9
16x7 Garage Door		18.5		-21.0

DESIGN LOADS	
FLOOR	40 PSF (ALL OTHER DWELLING ROOMS)
	30 PSF (SLEEPING ROOMS)
	30 PSF (ATTICS WITH STORAGE)
	10 PSF (ATTICS WITHOUT STORAGE, <3:12)
ROOF	20 PSF (FLAT OR <4:12)
	16 PSF (4:12 TO <12:12)
	12 PSF (12:12 AND GREATER)
STAIRS 40 PSF (ONE & TWO FAMILY DWELLINGS)	
SOIL BEARING CAPACITY 1000PSF	
NOT IN FLOOD ZONE (BUILDER TO VERIFY)	

MASONRY NOTES:

MASONRY CONSTRUCTION AND MATERIALS FOR THIS PROJECT SHALL CONFORM TO ALL REQUIREMENTS OF "SPECIFICATION FOR MASONRY STRUCTURES" (ACI 530.1/ASCE 6/TMS 602). THE CONTRACTOR AND MASON MUST IMMEDIATELY, BEFORE PROCEDING, NOTIFY THE ENGINEER OF ANY CONFLICTS BETWEEN ACI 530.1-02 AND THESE DESIGN DRAWINGS. ANY EXCEPTIONS TO ACI 530.1-02 MUST BE APPROVED BY THE ENGINEER IN WRITING.

	ACI530.1-02 Section	Specific Requirements
1.4A	Compressive strength	8" block bearing walls F'm = 1500 psi
2.1	Mortar	ASTM C 270, Type N, UNO
2.2	Grout	ASTM C 476, admixtures require approval
2.3	CMU standard	ASTM C 90-02, Normal weight, Hollow, medium surface finish, 8"x8"x16" running bond and 12"x12" or 16"x16" column block
2.3	Clay brick standard	ASTM C 216-02, Grade SW, Type FBS, 5.5"x2.75"x11.5"
2.4	Reinforcing bars, #3 - #11	ASTM 615, Grade 60, Fy = 60 ksi, Lap splices min 48 bar dia. (30" for #5)
2.4F	Coating for corrosion protection	Anchors, sheet metal ties completely embedded in mortar or grout, ASTM A525, Class G60, 0.60 oz/ft2 or 304SS
2.4F	Coating for corrosion protection	Joint reinforcement in walls exposed to moisture or wire ties, anchors, sheet metal ties not completely embedded in mortar or grout, ASTM A153, Class B2, 1.50 oz/ft2 or 304SS
3.3.E.2	Pipes, conduits, and accessories	Any not shown on the project drawings require engineering approval.
3.3.E.7	Movement joints	Contractor assumes responsibility for type and location of movement joints if not detailed on project drawings.



W58 - PORTAL FRAME SHEARWALL DETAIL

SCALE: 1/2"=1'-0"

REVSIONS	

SOFTPLAN ARCHITECTURAL DESIGN SOFTWARE

WINDLOAD ENGINEER: Mark Disosway, PE No.53915,?OB 868, Lake City, FL 32056, 386-79-5419

DIMENSIONS
Stated dimensions supercede scaled dimensions. Rfer all questions to Mark Disoswa, P.E. for resolution. Do not proceel without clarification.

CERTIFICATIN: I hereby certify that I have examined this lan, and that the applicable portions of theplan, relating to wind engineering comply with sction R301.2.1, florida building code residentbi 2004, to the best of my knowledge.

LIMITATION: his design is valid for one building, at spcified location.

?ARK DISOSWAY
P.E. 53915

SEAL

McMurry Garage

ADDRESS:
11395W Wesley Terrace
LakeCity, Florida 32025

Mark Disosway P.E.
F.O. Box 868
Lake City, Florida 32056
Phone (386) 754 - 5419
Fax: 386) 269 - 4871

?RINTED DATE:
September 25, 2006

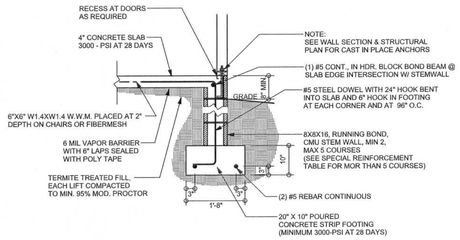
DRAWN B?: David Disosway
CHECKED BY:

FINALS D?TE:
25 / Sep .06

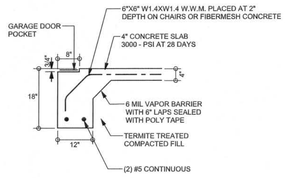
JO3 NUMBER:
609252

DRWING NUMBER
S-1

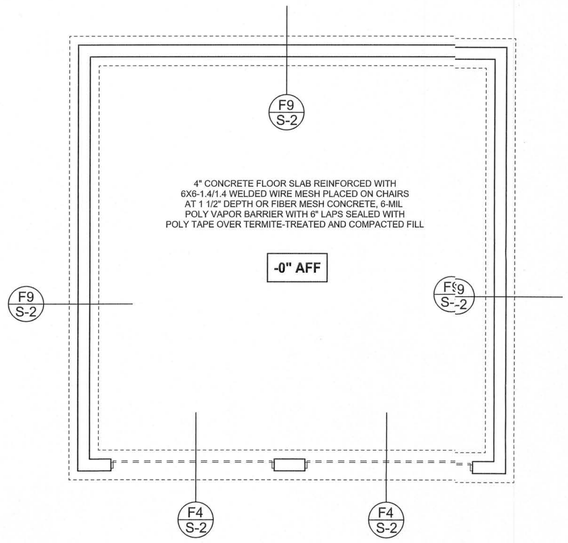
0F 2 SHEETS



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"

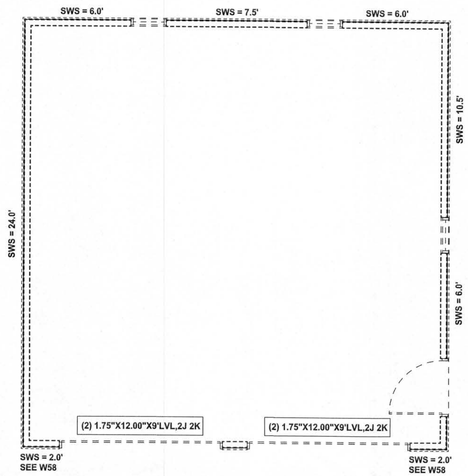
DIMENSIONS ON STRUCTURAL SHEETS ARE NOT EXACT. REFER TO ARCHITECTURAL FLOOR PLAN FOR ACTUAL DIMENSIONS

TALL STEM WALL TABLE

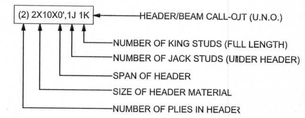
The table assumes 60 ksi reinforcing bars with 6" hook in the footing and bent 24" into the reinforced slab at the top. The vertical steel is to be placed toward the tension side of the CMU wall (away from the soil pressure, within 2" of the exterior side of the wall). If the wall is over 8' high, add Durowall ladder reinforcement at 16"OC vertically or a horizontal bond beam with 1#5 continuous at mid height. For higher parts of the wall 12" CMU may be used with reinforcement as shown in the table below.

STEMWALL 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 (535lb) FOR ALL TRUSS TO WALL FRAME AND PORCH BEAM CONNECTIONS UNLESS NOTED OTHERWISE



HEADER LEGEND



TOTAL SHEAR WALL SEGMENTS

SWS = 0.0' INDICATES SHEAR WALL SEGMEN'S

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

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 BCSI1-03, BCSI-B1, BCSI-B2, & BCSI-B3. BCSI-B1, BCSI-B2, & BCSI-B3 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

REVISIONS

SOFTPLAN ARCHITETURAL DESIGN SOFTWARE

WINDLOAD ENGINEER: Mark Disosway, PE No.53915, PO 868, Lake City, FL 32056, 386-754-S19

DIMENSIONS:
Stated dimension supercede scaled dimensions. Refe all questions to Mark Disosway, I'E. for resolution. Do not proceed without clarification.

CERTIFICATIONI hereby certify that I have examined this pla, and that the applicable portions of the pln, relating to wind engineering comply with sectin R301.2.1, florida building code residential 304, to the best of my knowledge.

LIMITATION: Thidesign is valid for one building, at specifid location.

MAIK DISOSWAY
P.E. 53915
25SEP06
SEAL

McMurry Garage

/DDRESS:
1139 SV Wendy Terrace
Lake Cty, Florida 32025

Mark Disosway P.E.
P.C. Box 868
Lake City, Florida 32056
Phone: (386) 754 - 5419
Fax: (386) 269 - 4871

PRINTED DATE: September 25, 2006

DRAWN BY: David Disoswa

CHECKED BY:

FINALS DATE 25 / Sep / 0(

JOB NUMBER: 609252

DRAWING NUMBER **S-2**

OF2 SHEETS