



Garden Oak Garage & Workshop Plans

Design Set #OG-2424G

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Today's Plans

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More than a dozen different layouts of garages and workshops can be built from this set of plans. You can build the 24' wide Main Garage at 24', 26' or 28' depth and add Expansion Sheds, of matching depth, to either side to have exactly the design you want. You can also build the Main Garage now and add Expansion Sheds at any time in the future. See the Sample Layouts, on pages 1-4, for some of the options.

Garden Oak Garage & Workshop Plans

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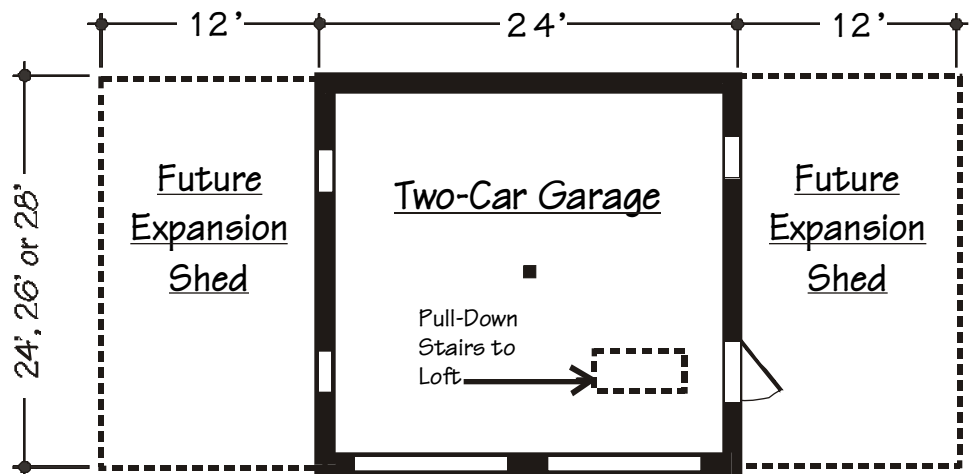
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Material Lists

Building Material Lists for all size Main Garages
and Expansion Sheds can be found online at:
wwwTodaysPlans.com

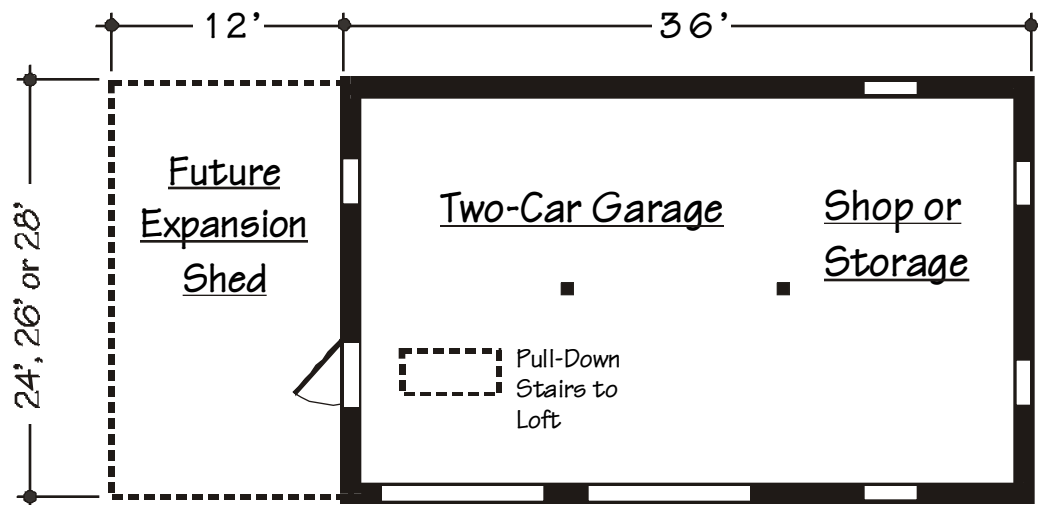
Sample Layout #1 - Two-Car Garage



The Garden Oak series of garages and workshops starts with this sturdy 24' wide, two bay garage with pull-down stairs to a high and dry storage loft. You can build yours at 22', 24' or 26' deep. Leave plenty of room on either side. The drawings include plans for 12' wide expansion sheds for more storage space or extra garage bays. You can also plan on using one of the easy-to-build sheds as your hobby shop, studio, workshop or home office.

See the Index page for a list of drawings. Build this garage using drawings P1 through FD3. Save drawings ES-P1 through ES-D1 for future expansions.

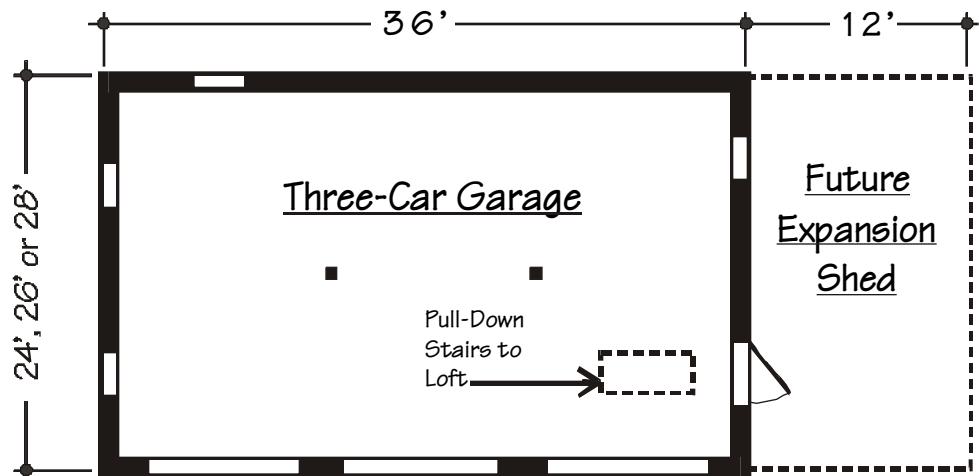
Sample Layout #2 - Two-Car Garage & Workshop



Here's a big, practical storage building that might be just what you need in your backyard. It's a two-car garage with plenty of extra space for storage or your use as a work or hobby shop. Add a wall between the spaces and use the shed-roof section as your office or studio. The garage has pull-down stairs to a full loft for extra storage. Leave room on your property for another garage or storage space. The Garden Oak plans let you expand your garage at any time in the future.

See the Index page for a list of drawings. Build the gable roof garage using drawings P1 through FD3. Build the shed roof section using drawings ES-P1 through ES-D1 and FD1 through FD3. Use Elevation ES-E2 as the front of the shed roof shop/storage space.

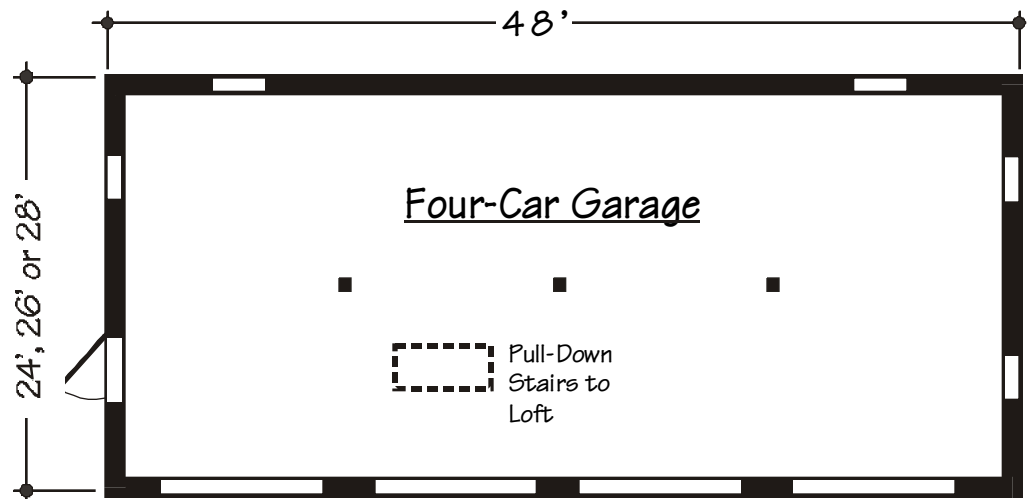
Sample Layout #3 - Three-Car Garage



The Garden Oak Three-Car Garage is a practical storage building that might be just what you need for your cars, boats, small trucks or SUVs. There's a big storage loft for everything that won't fit in your attic. Leave room on your property for another garage or more storage space. The Garden Oak plans let you expand your garage whenever you need to.

See the Index page for a list of drawings. Build the gable roof garage using drawings P1 through FD3. Build the shed roof section using drawings ES-P1 through ES-D1 and FD1 through Fd3.

Sample Layout #4 - Four-Car Garage



This building has four 12' wide parking bays. You can build them at up to 28' deep for long vehicles or to use the back of your garage for storage or a work bench. Inexpensive pull-down stairs lead to big loft for even more storage.

See the Index page for a list of drawings. Build the gable roof garage using drawings P1 through FD3. Build the shed roof sections using drawings ES-P1 through ES-D1 and FD1 through Fd3.

TERMS OF USE

By using these drawings, the purchaser, builder and property owner agree to the following conditions:

These drawings are intended to present the general layout and appearance of the building. They may also serve as a guide to construction in some locations. The publisher can not assure that these plans are suitable for all uses, for every site's conditions, for all codes, or for all building associations' criteria.

It's both the property owner's and the builder's responsibility to have these drawings reviewed by a local building professional and by the community's building and zoning officials prior to the start of construction. If these plans are not useable and not easily adaptable, they may be returned for a complete refund. Email info@TodaysPlans.com for return instructions. The publisher's and designer's liability is limited to the original purchase price of these plans.

The publisher grants the purchaser of these plans permission to build one unit of this design. Copying these plans in any way, or use by anyone other than the purchaser or the purchaser's builder is a violation of U.S. and international Copyright law.

DESIGN CRITERIA

These plans were designed to meet general standards and average weather and soil conditions. They should be reviewed and adapted by a local building professional for suitability to the actual site and for compliance with current codes, ordinances and standards.

The building was planned as a non-habitable utility or accessory building. It must be built at a distance of more than 5' from any adjacent combustible building. It was designed to exceed the requirements for an A.S.C.E. Category 1 building with the following criteria: 70psf Ground Snow Load (Reduced to 40psf Design Snow Load per A.S.C.E 7-95); 5psf Roof Dead Load; 40psf Loft Live Load; 10psf Loft Dead Load; 90mph Wind Load (10psf plus wind force); 1,500psf Soil Bearing Strength.

The Loft is intended for light storage, typical of a residential attic. The Loft's floor structure must be adapted by a local construction engineer for storage of

lumber, metal, logs, hay or masonry, or for any operating machinery.

DESIGN CHANGES

These plans are intended to be suitable for use with various finish materials and with other sizes and locations of doors and windows. The materials, windows and doors shown are suggested as reasonably inexpensive and available nationwide. For best appearance, the building should be finished and detailed to match or complement adjacent buildings on the site. Different or additional windows and doors may be installed using conventional framing methods. All changes should be coordinated by a local building professional, prior to the start of construction.

SIDING

Any of a variety of siding materials may be used on this building. Follow manufacturers' or suppliers' recommendations for the installation and finishing of siding. Siding should be applied over 1/2" exterior grade plywood.

ROOF MATERIALS

Any of a variety of roof materials may be used on this building. They should be applied over a minimum 5/8" exterior grade plywood deck. The plywood deck is an important structural element and should be installed regardless of the roof material used. Metal roofing should be installed to the manufacturer's specifications on sleepers or fasteners applied to the roof deck. Wood shingles should be nailed to wood sleepers above the plywood deck. For slate, clay or ceramic tile roofs, use 3/4" exterior grade plywood for the roof deck and decrease the roof rafter spacing to 12" on center. Follow manufacturer's or supplier's recommendations for the installation and finishing of roofing.

OPTIONS

This building is designed to accommodate optional expansion sheds, layouts, materials and details. The owner and builder should coordinate the selection of all options prior to the start of construction. Expansion sheds must be carefully aligned with the main building so that adjacent sheathing and siding are flush.

SITE DESIGN

The building should be plotted on its site by a surveyor or building professional. It must be located at least 5' away from any other combustible building. Review local ordinances for required setbacks. If the building is intended to shelter animals, review local Health Department regulations for required distances from wells and residences.

DRAWING NOTES

Lumber sizes shown on these drawings are nominal unless marked as "true." Lumber marked "P.T." is to be pressure treated.

GENERAL SPECIFICATIONS

1. **Codes:** All work must comply with current codes, ordinances and industry standards.
2. **Permits:** The builder is responsible for obtaining and paying for all necessary permits, scheduling all required inspections and obtaining a Certificate of Occupancy.
3. **Scope of Work:** The builder should provide all materials, labor and equipment required to complete the building in reasonable time. The builder should provide, supervise and coordinate all necessary subcontractors. All workmanship and materials must be of the best quality. Materials and equipment must be installed or applied to the manufacturers' and suppliers' specifications.
4. **Work by Owner/Others:** All work required for a complete and finished building should be provided by the builder, except as acknowledged by the owner at the time of the contract agreement.
5. **General Conditions:** The building contract will be governed by standards outlined in the "General Conditions of Contract" published by the American Institute of Architects unless comparable published standards are mutually accepted by the owner and the builder.
6. **Site Work:**
 1. Clear the building site of all shrubs, trees, rocks and stumps. Remove and store topsoil. Protect all other landscaping, paving and structures from damage by this construction.

2. Excavate for footings to the depth shown on drawings or deeper, if necessary, to reach solid stone or undisturbed soil that's entirely free of backfill. Footings must extend below the established frost line at the building site.

Excavate as required for all planned drives, parking areas and utility lines.

3. Provide clean gravel fill as shown on the drawings and as necessary to allow a flat, well drained building subfloor.

4. Grade the building site so that water flows away from the building. Replace topsoil to a minimum of 3" deep. Rake to remove all surface rocks, roots and debris, and seed and mulch as required.

7. Concrete:

1. All concrete must be a minimum of 3000 psi and must be handled and installed to the American Concrete Institute's standards.

2. Concrete slabs must be a minimum of 4" thick, reinforced with 6x6 (#10) wire mesh. Provide 1/2" neoprene or oiled felt expansion joints as shown on drawings. Slope floor slab toward the largest door at 1/8" per foot. Provide a smooth, trowel or brush finish.

8. Carpentry:

1. All framing lumber must be structural grade, with a min. 1,200 psi bending stress rating.

2. All framing must be plum, level and true and must be properly nailed, screwed or bolted.

3. Roof sheathing must be min. 5/8" CDX plywood. Exterior wall sheathing should be min. 1/2" CDX plywood.

4. Provide bridging or solid blocking at the midpoint of all joists that exceed 10' in span.

9. Structural Connections:

1. Follow manufacturers' nailing or bolting specifications for all metal connectors.

2. Loft Steel Joist Hanger to Beam Connections: Follow manufacturer's nailing specifications.

3. Rafter to Roof Plate Connections: Birdsmouth each rafter for minimum 2" bearing surface. Anchor all rafters at the top plate with steel framing anchors, Simpson Strong Tie #H1 or equal. Follow manufacturer's nailing specifications.

4. Additional wind resistance can be added with metal strapping and ridge-to-

rafter connectors. Follow manufacturers' specifications for nailing or bolting.

5. Plywood: Nail all plywood to rafters and studs with 8d Common Nails or 10D Box Nails - 6" on center for all outside edges and 12" on center on the plywood panel field.

6. Wherever metal connectors, anchors, fasteners, bolts, screws or nails are in contact with pressure treated wood, they must be hot dip galvanized or stainless steel. Follow recommendations of wood suppliers and connector manufacturers.

10. Roofing:

1. Roofing shall be as selected by the owner, and installed to the manufacturer's or supplier's standards.

2. All roof valleys, intersections and protrusions must be flashed with solidly backed aluminum or copper sheeting and must be entirely weatherproof.

3. Provide metal drip edging at all rakes and eaves.

11. Windows and Doors:

1. All prefabricated windows, doors, hardware and accessories must be as selected by the owner, and must be installed and finished to the manufacturers' specifications.

2. The builder must make every effort to build custom doors that are straight, true, serviceable and durable.

3. Provide durable drip caps above all windows, doors and framed openings.

12. Finishes:

Paint, stain or finish as selected by the owner and to the manufacturers' specifications.

13. Plumbing and Electrical:

If required by the owner and the intended use of the building, provide a plumbing system and an electrical system in accord with all state and local ordinances. The builder must secure all necessary design, permits, inspections, approvals and Underwriter's certificates.

CONSTRUCTION RESOURCES

1. Engineering:

www.ncees.org/licensure

All stock plans like these are designed to work for average conditions across the country. To comply with specific local building codes, ordinances and weather conditions and for the best quality of construction these plans should be

reviewed, and modified as necessary by a Professional Engineer.

These drawings should be reviewed and modified for higher wind resistance, for earthquake resistance, for higher snow loads and for sites with poor or poorly drained soil conditions. California, Pacific Coast and Rocky Mountain locations may necessitate modifications for earthquake resistance. High mountain locations and areas of northern Maine and northern Michigan may require higher snow load resistance. Florida, Long Island, coastal areas, high mountain areas and some other locations will require higher wind load resistance. Many northern locations will require deeper footings because of deeper frost penetration. The states of Florida and Nevada, and some other jurisdictions require that drawings be prepared or reviewed by an in-state architect or engineer. Some local building officials will waive some requirements if the building is planned for agricultural use or for property that is zoned as Agricultural.

Building departments may provide names of qualified Professional Engineers.

The National Council of Examiners for Engineering and Surveying lists the websites of Licensing Boards for all US states and territories. Most of those websites have lists of licensed Professional Engineers.

2. Garage Building Components:

www.abettergarage.com

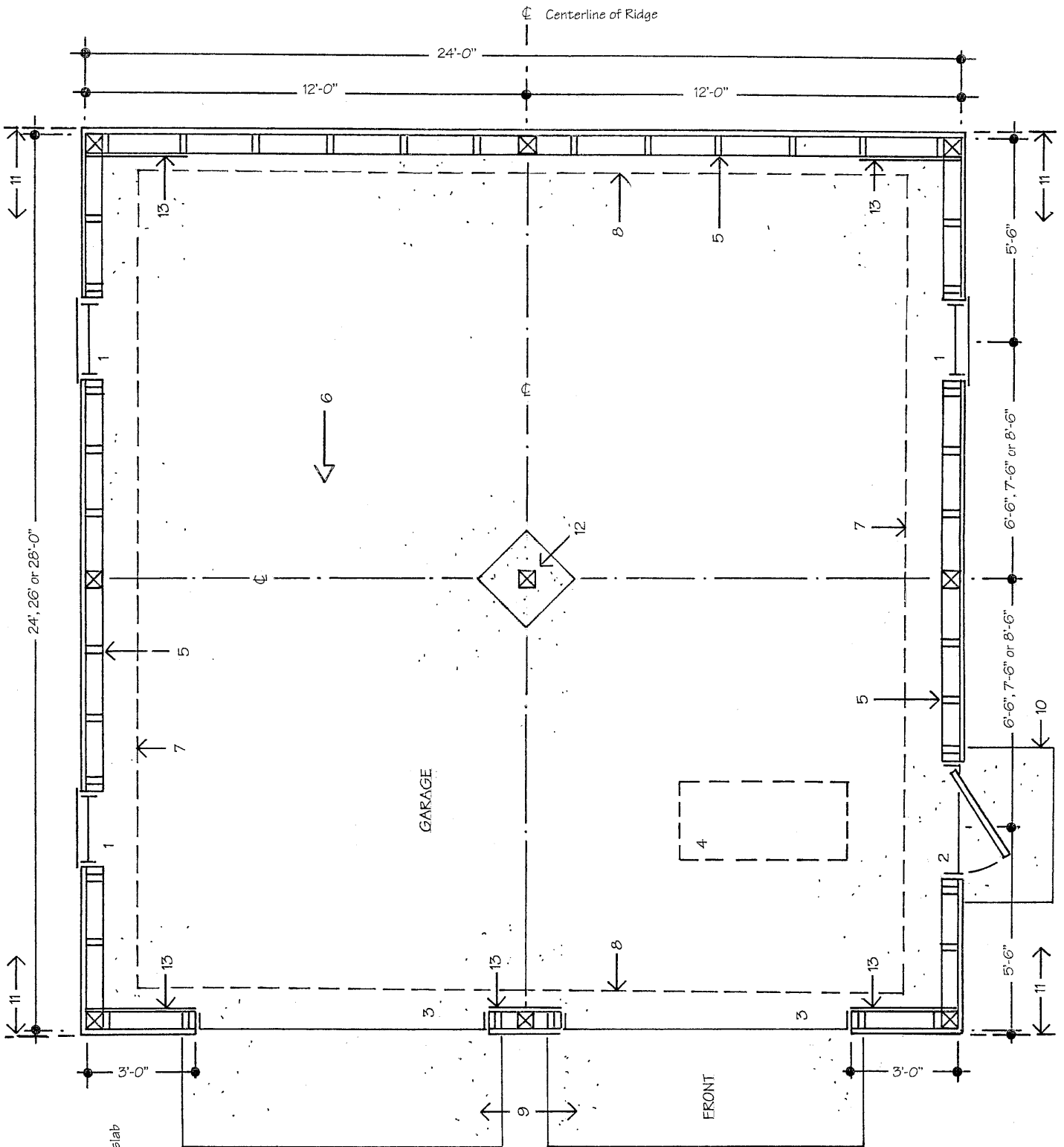
A variety of specialty products for this building can be found on the Internet. The resource directories at aBetterGarage.com feature overhead doors, wrought iron hardware, carriage house style garage doors and much more..

3. Cupolas:

www.abetterbarn.com

An optional cupola for this design should be a minimum of 30" wide on each face of its base and a minimum of 48" in height above the building's ridge. It should be centered on the main ridge as shown on the Elevation drawings.

A large selection of prefabricated cupolas, cupola plans and weathervanes can be found at aBetterBarn.com.



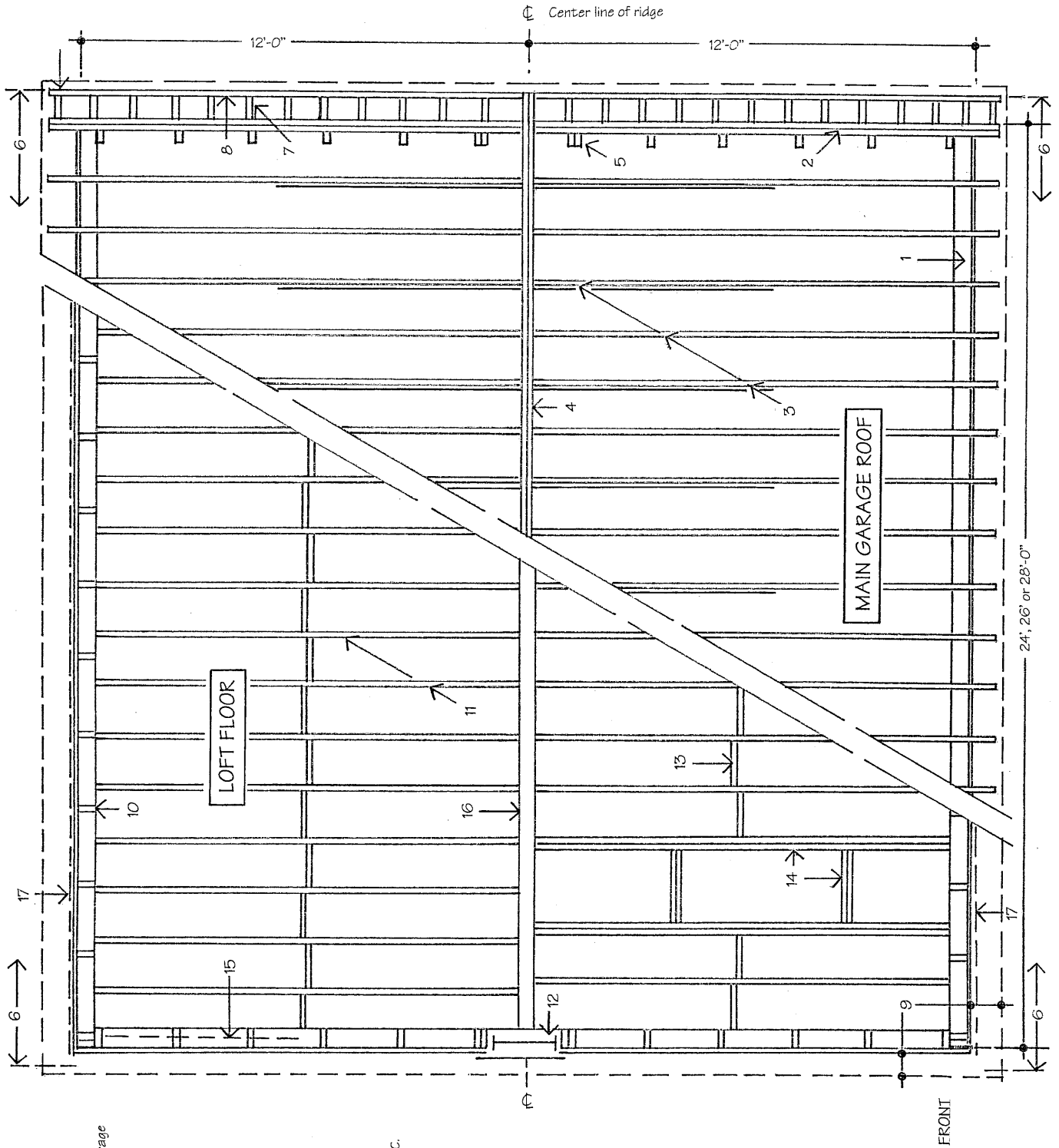
☒ - 6x6 Post on anchored post mount
 ⊕ - Center line of building and expansion joint in floor slab
 Mirror this plan for a walk door on the opposite side

Drawing Notes:

1. Windows should be 2'-0" x 3'-0" fixed, awning, casement or double hung
2. 3'-0" x 7'-0" Walk door
3. 8'-0" x 7'-0" Garage door centered on building. R.O. at Mfg.'s recommendation
4. Full-down stairs to Loft
5. 2x6 Stud wall
6. 4" reinforced concrete slab - Slope towards garage doors at 1/8" per foot
7. Frost wall or monolithic slab foundation - See Drawings FD1 and FD2
8. Thickened slab - See Drawing FD3
9. Concrete apron, or slope drive up to the Garage floor
10. Min. 3'-0" x 4'-0" Concrete stoop at the level of the Garage floor
11. Area of optional Expansion Shed - See Drawing ES-P1
12. 30" x 30" x 18" Deep concrete post footing - isolate with expansion joints
13. 1/2" plywood rack bracing

P1 - MAIN GARAGE FLOOR PLAN

1/4" = 1'-0"



Mirror this plan for pull-down stairs on the opposite side of the Main Garage

Main Garage Roof Framing:

1. Double 2x6 plate
2. Double outside rafters
3. 2x8 Rafters - 16" O.C.
4. Double 2x8 ridge
5. Notch outside rafters into wall studs
6. Area of optional Expansion Shed

Roof Overhangs:

7. 6" long, 2x4 Lookouts at 24" O.C.
8. 2x4 Flying rafters
9. 8" Roof overhang

Loft Floor Framing:

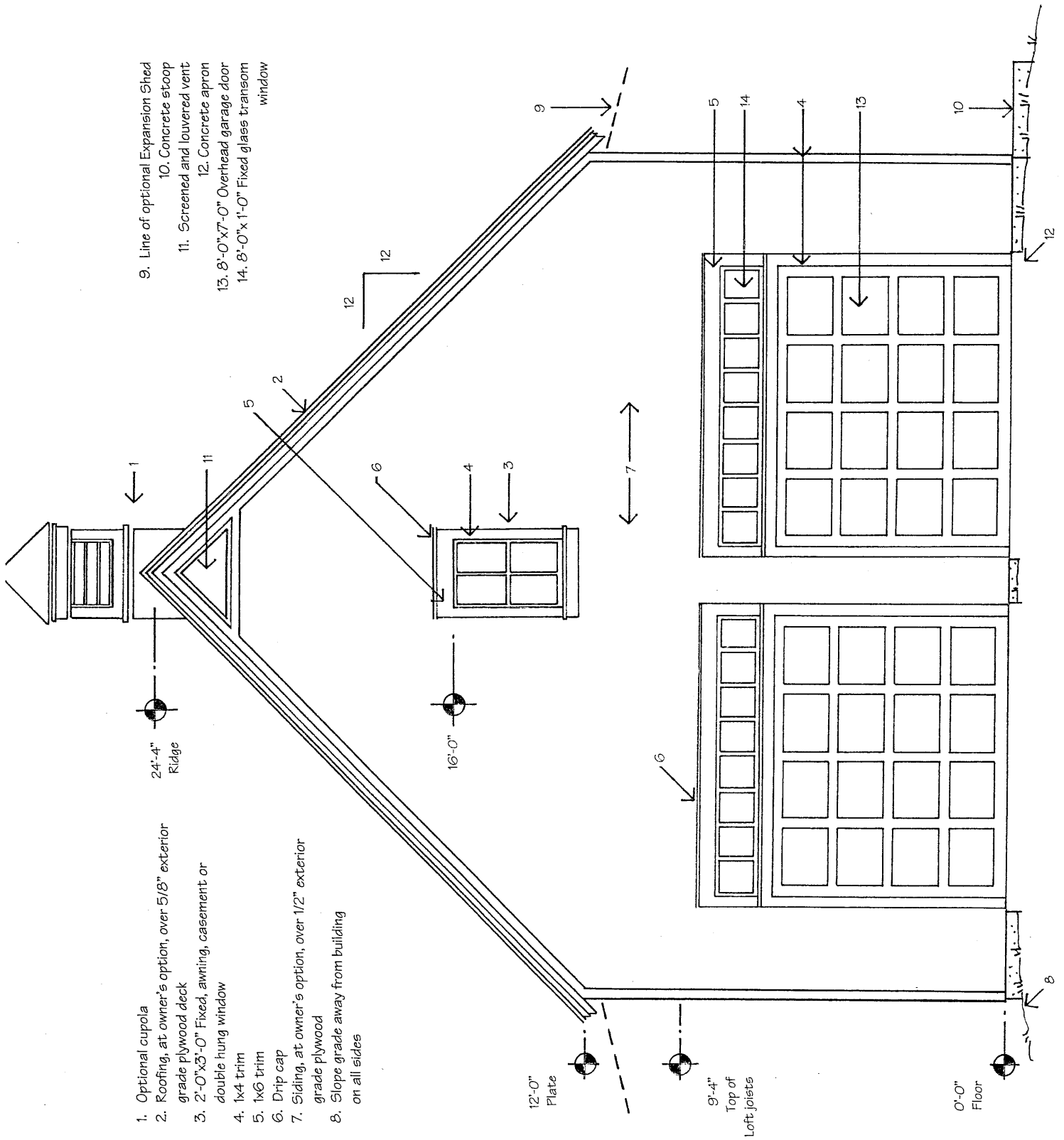
10. 2x6 Stud wall
11. 2x10 Joists, on joist hangers - 16" O.C.
12. 2'-0" x 3'-0" Window
13. 2x10 Staggered bridging at the center of joist spans
14. Frame for pull-down stairs with double joists and blocking
15. Triple 2x10 below
16. 5 1/2" x 10 1/2" Glulam beam

Optional Expansion Shed:

17. Line of 2x10 shed roof ledge

P2 - MAIN GARAGE LOFT & ROOF FRAMING PLANS

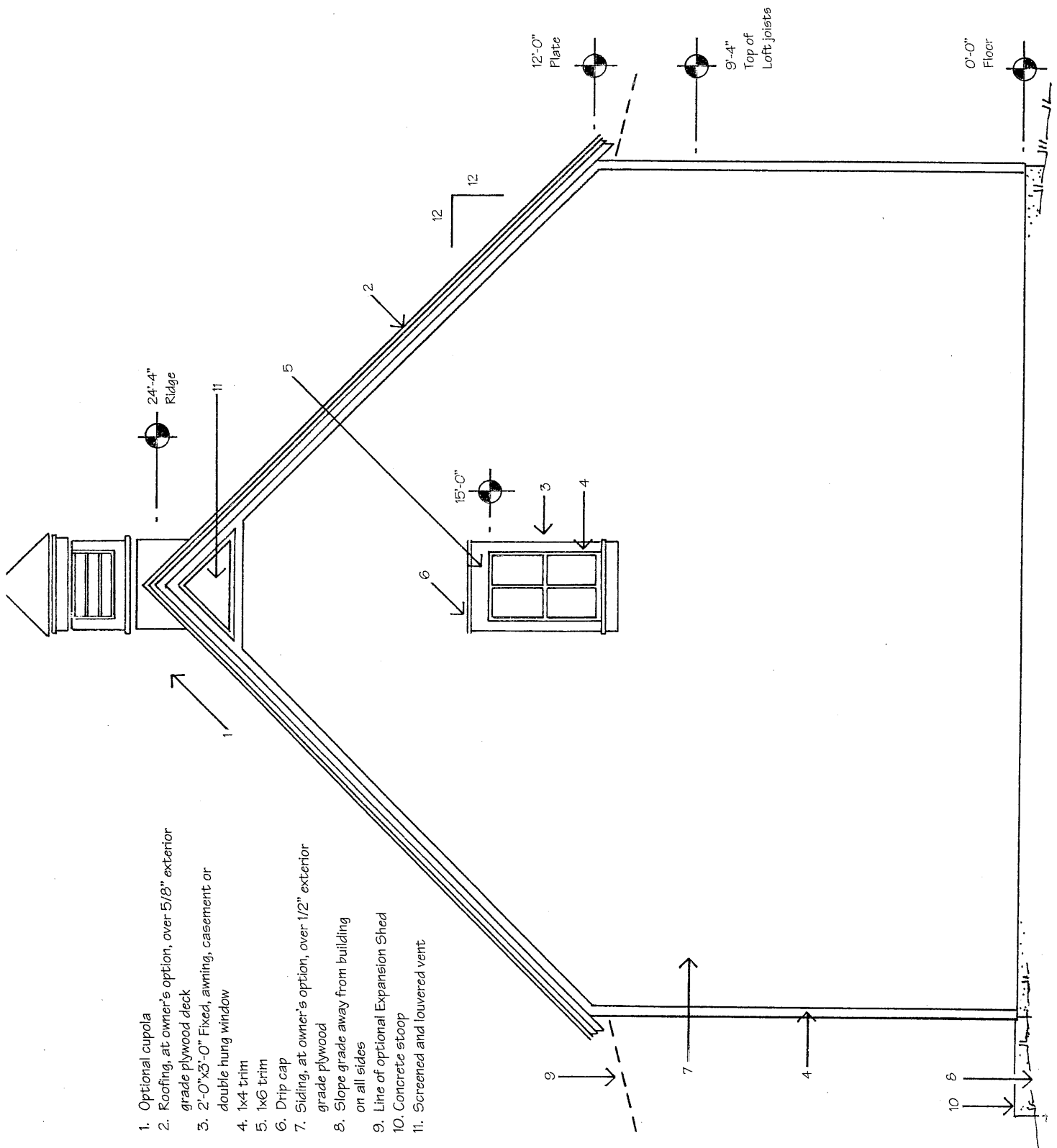
1/4" = 1'-0"



E1 - MAIN GARAGE FRONT ELEVATION

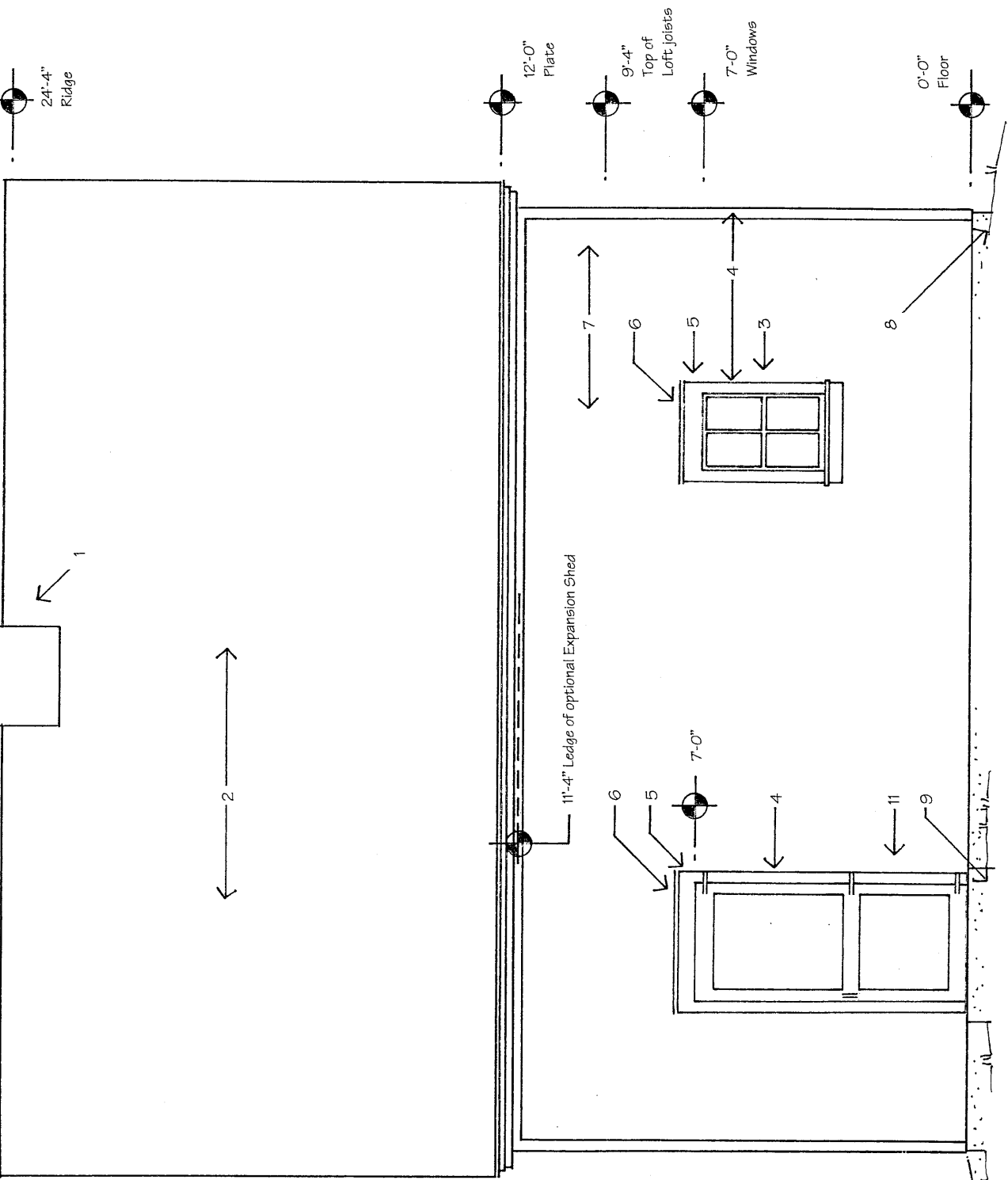
1/4" = 1'-0" Mirror this drawing for other orientations

1. Optional cupola
2. Roofing, at owner's option, over 5/8" exterior grade plywood deck
3. 2'-0" x 3'-0" Fixed, awning, casement or double hung window
4. 1x4 trim
5. 1x6 trim
6. Drip cap
7. Siding, at owner's option, over 1/2" exterior grade plywood on all sides
8. Slope grade away from building
9. Line of optional Expansion Shed
10. Concrete stoop
11. Screened and louvered vent



E2 - MAIN GARAGE REAR ELEVATION

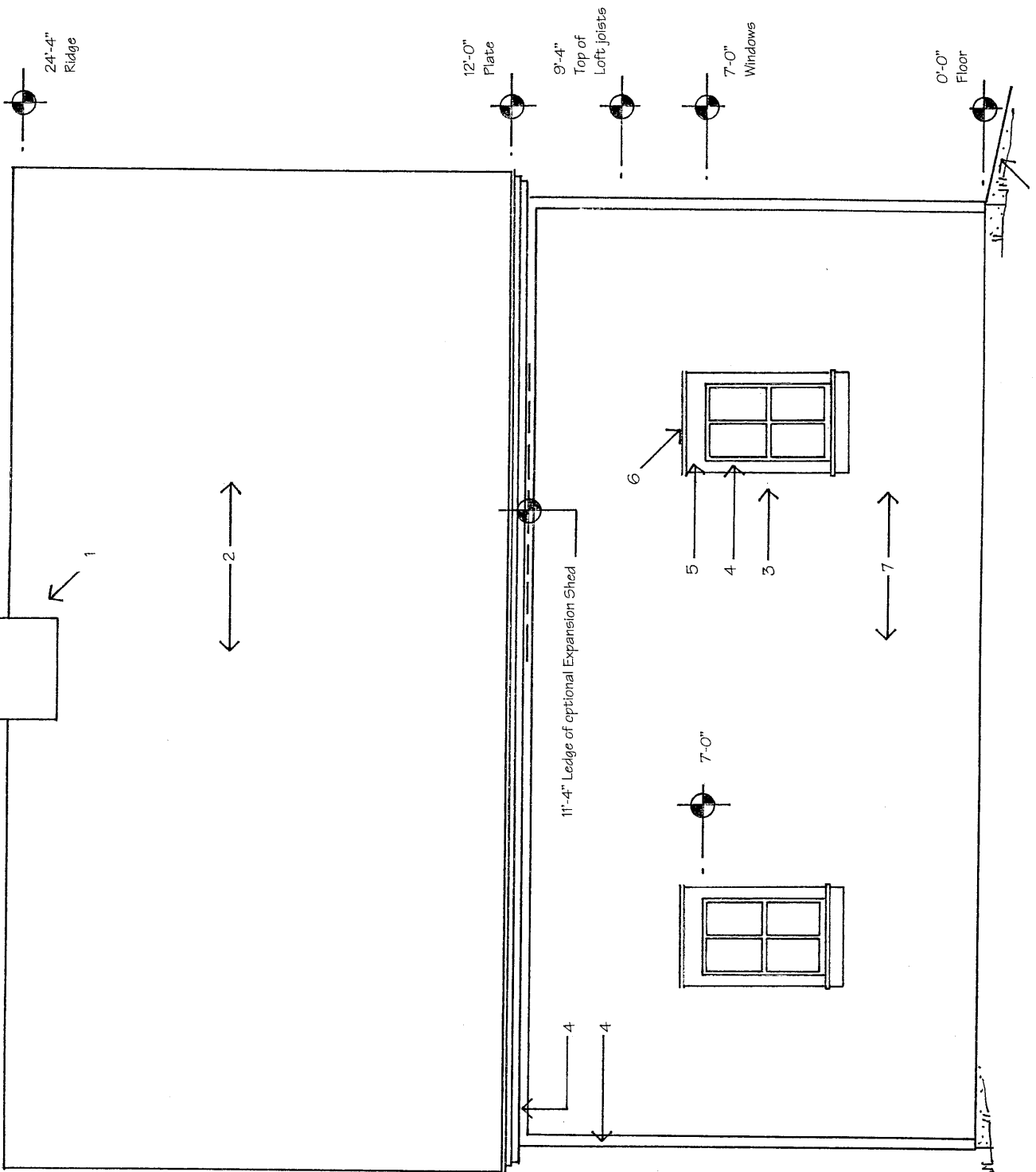
1/4" = 1'-0" Mirror this drawing for other orientations



1. Optional cupola
2. Roofing, at owner's option, over 5/8" exterior grade plywood deck
3. 2'-0"x3'-0" Fixed, awning, casement or double hung window
4. 1x4 trim
5. 1x6 trim
6. Drip cap
7. Siding, at owner's option, over 1/2" exterior grade plywood
8. Slope grade away from building on all sides
9. Concrete stoop
10. Concrete apron
11. 3'-0"x7'-0" Door

E3 – MAIN GARAGE SIDE ELEVATION

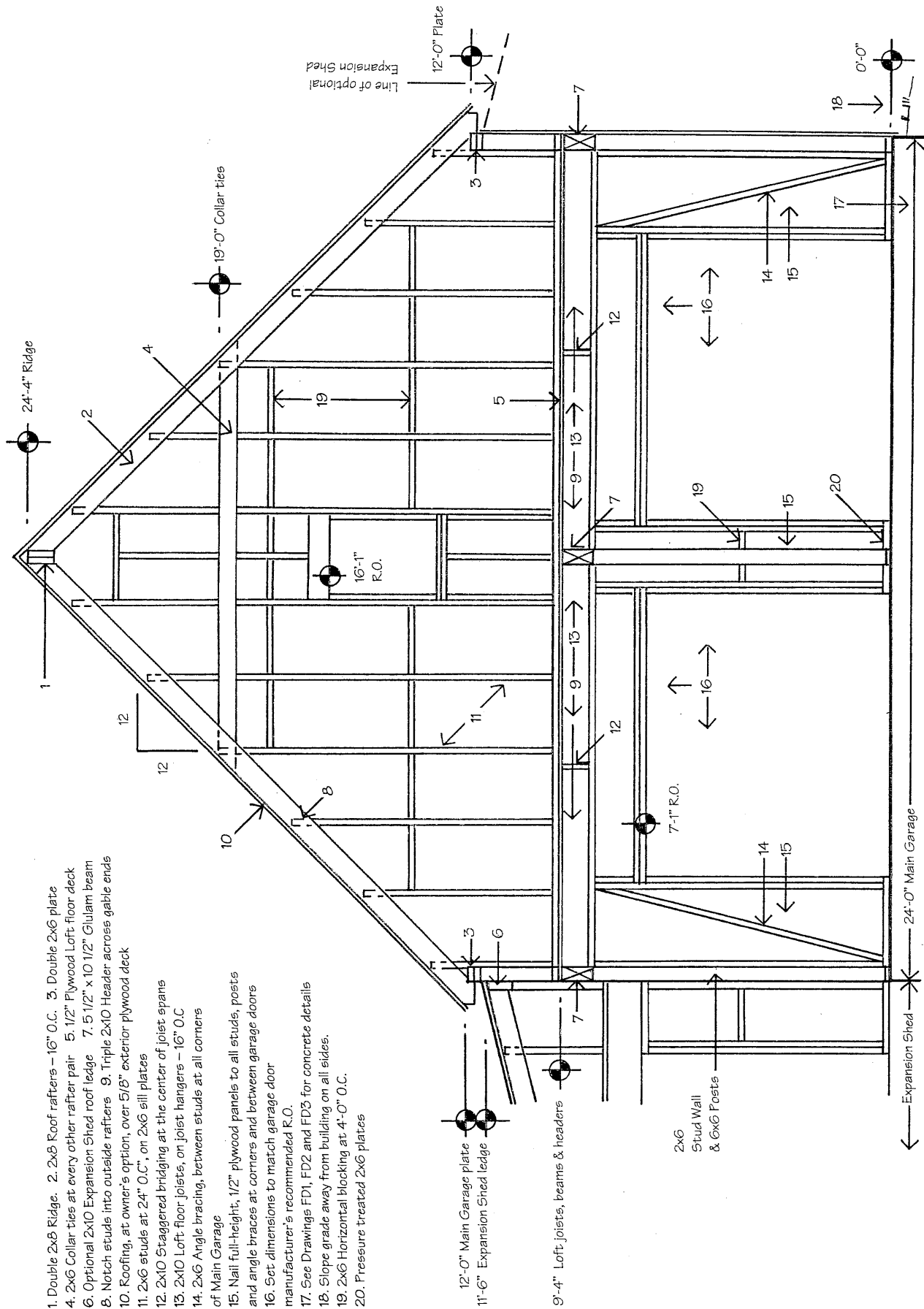
1/4" = 1'-0" Mirror this drawing for other orientations



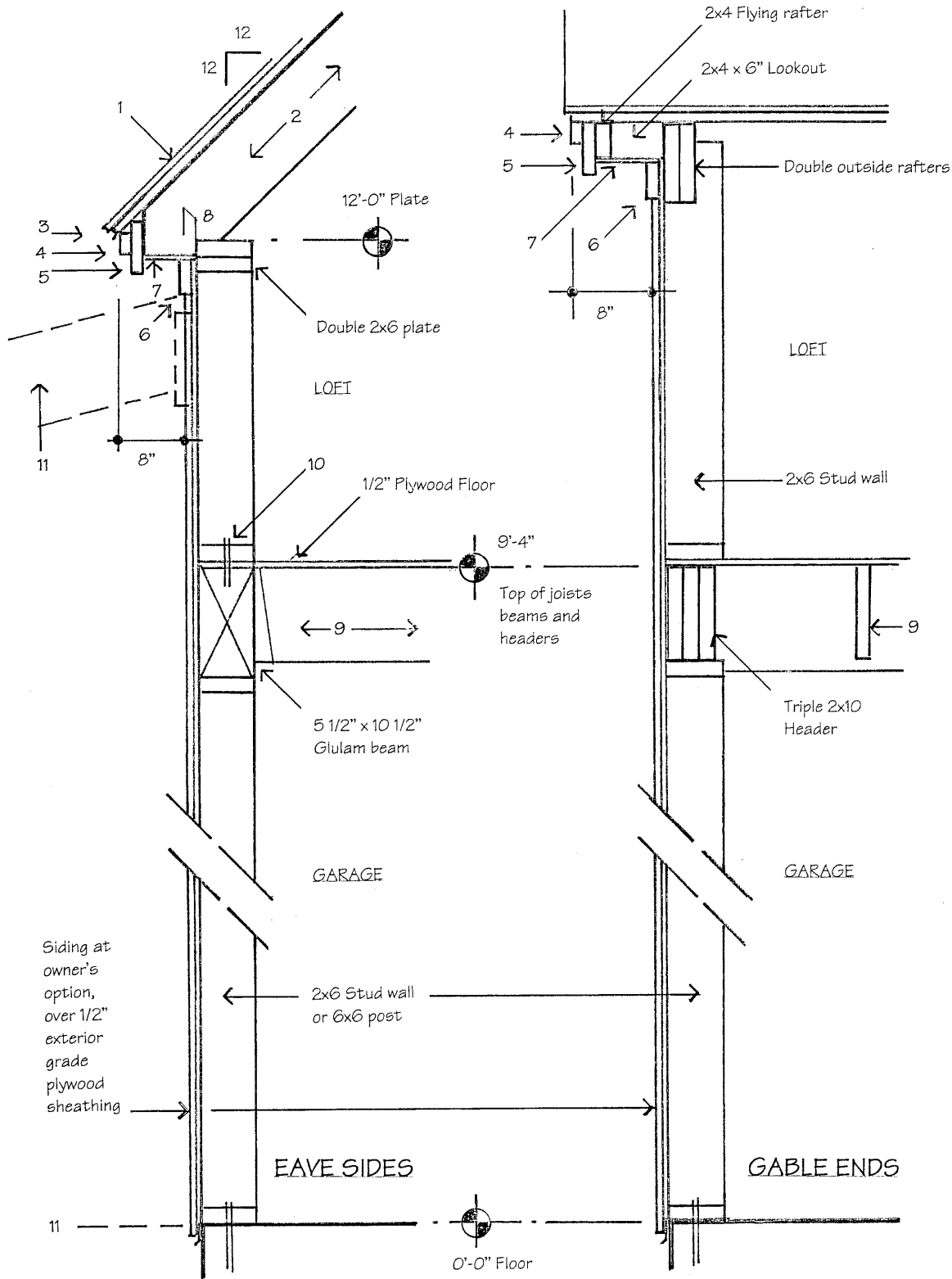
1. Optional cupola
2. Roofing, at owner's option, over 5/8" exterior grade plywood deck
3. 2'-0" x 3'-0" Fixed, awning, casement or double hung window
4. 1x4 trim
5. 1x6 trim
6. Drip cap
7. Siding, at owner's option, over 1/2" exterior grade plywood
8. Slope grade away from building on all sides
9. Concrete apron

E4 – MAIN GARAGE SIDE ELEVATION

1/4" = 1'-0" Mirror this drawing for other orientations

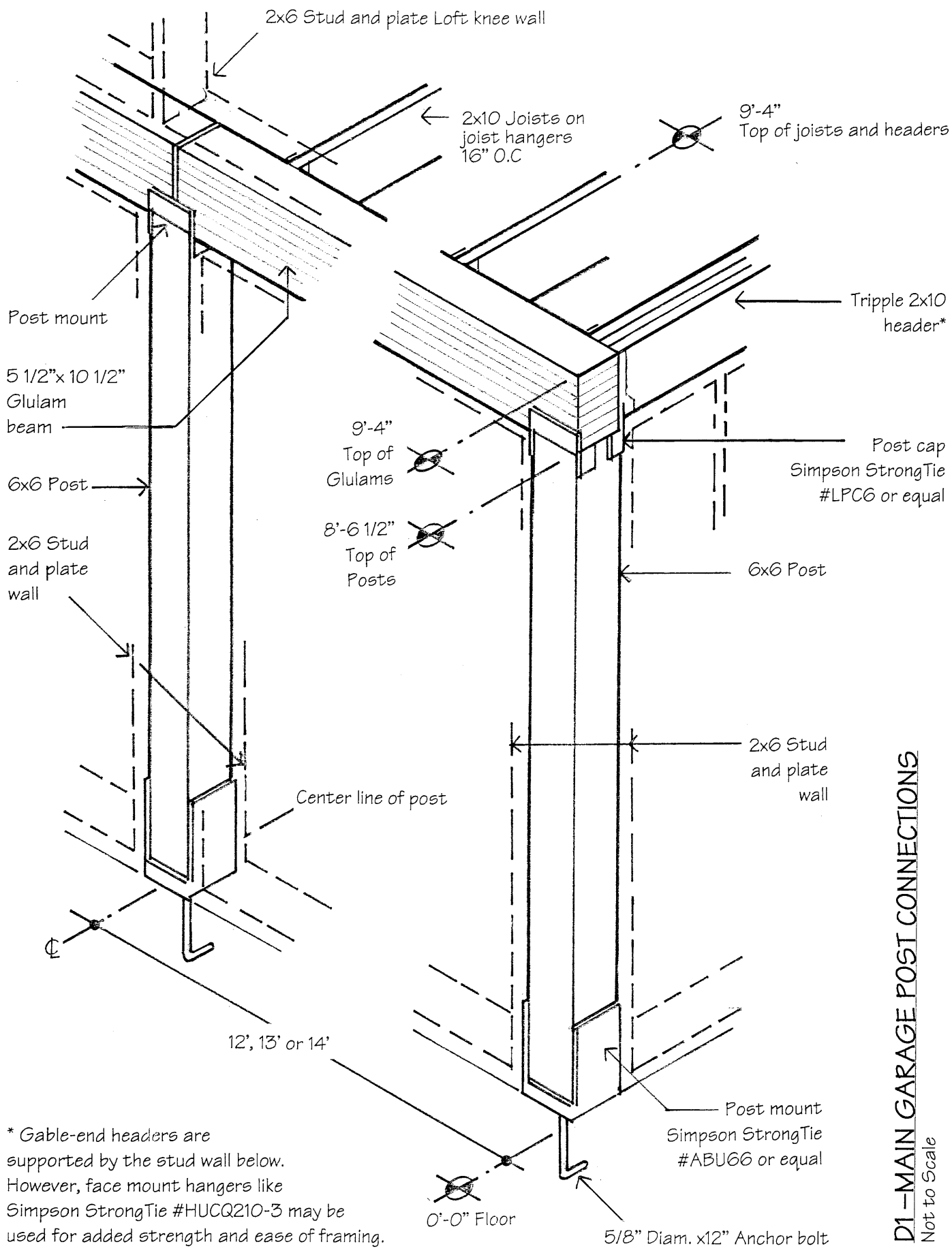


S1 - MAIN GARAGE BUILDING SECTION
 1/4" = 1'-0"



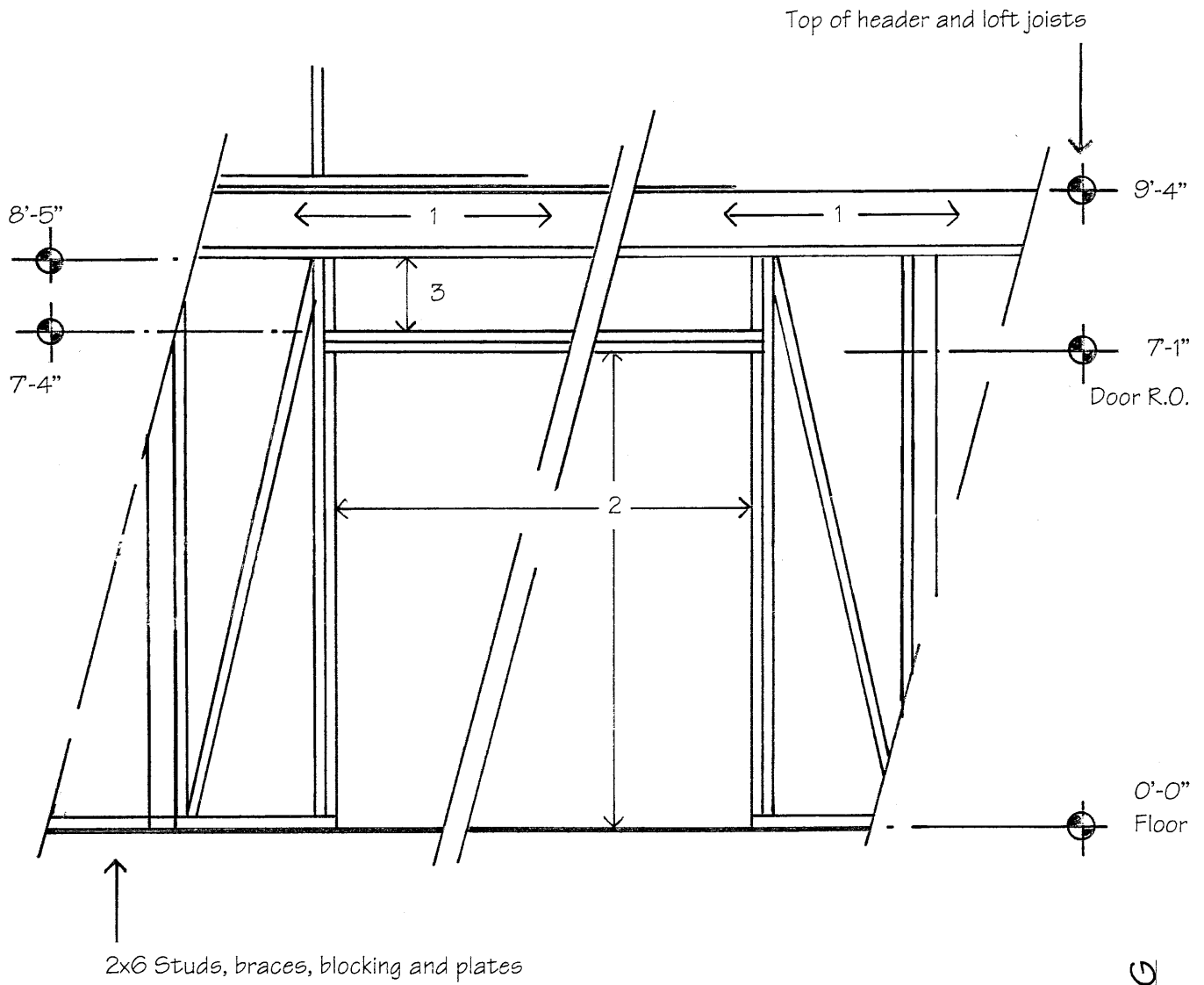
1. Roofing, at owner's option, over 5/8" exterior grade plywood sheathing.
2. 2x8 Roof rafters - 16" O.C. Birdsmouth for a minimum 2" bearing at plate.
3. Drip edge 4. 1x2 5. 1x6 6. 1x4 7. 1/4" Exterior plywood soffit
8. Simpson StrongTie #H1 or equal metal tie-down.
9. 2x10 Loft floor joists, on joist hangers - 16" O.C.
10. Secure Loft sill plate to glulam beam with 1/2" Diam. x 5" Lag bolts - 4' O.C.
11. Optional Expansion shed - See Drawing S3

S2 - MAIN GARAGE WALL SECTION
 3/4" = 1'-0"



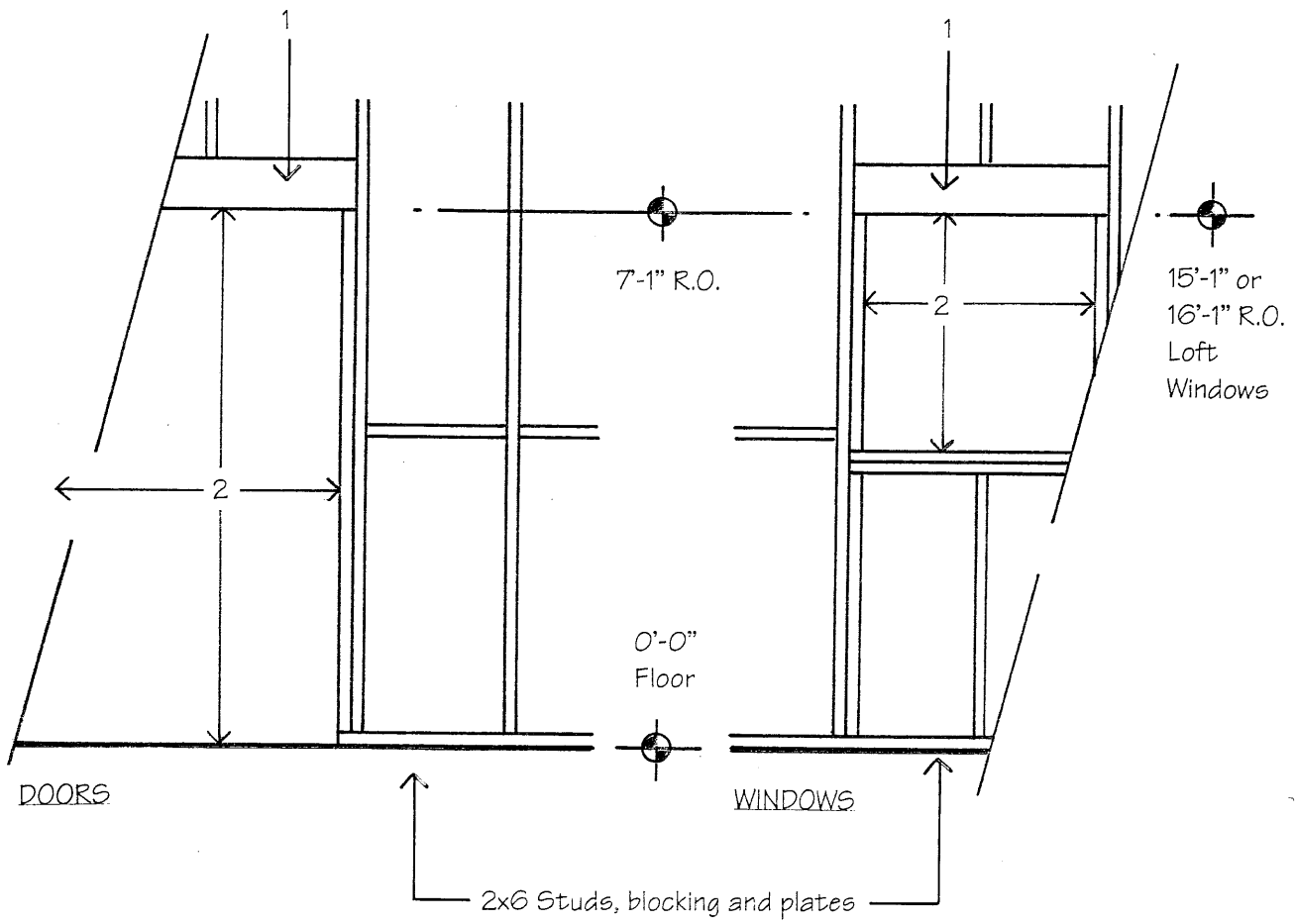
* Gable-end headers are supported by the stud wall below. However, face mount hangers like Simpson StrongTie #HUCQ210-3 may be used for added strength and ease of framing.

D1 - MAIN GARAGE POST CONNECTIONS
 Not to Scale



1. Triple 2x10 header – Header runs across the full width of the gable end walls.
2. Adjust dimensions to match door manufacturer's recommended R.O.
3. 13" Rough opening for custom transom window.

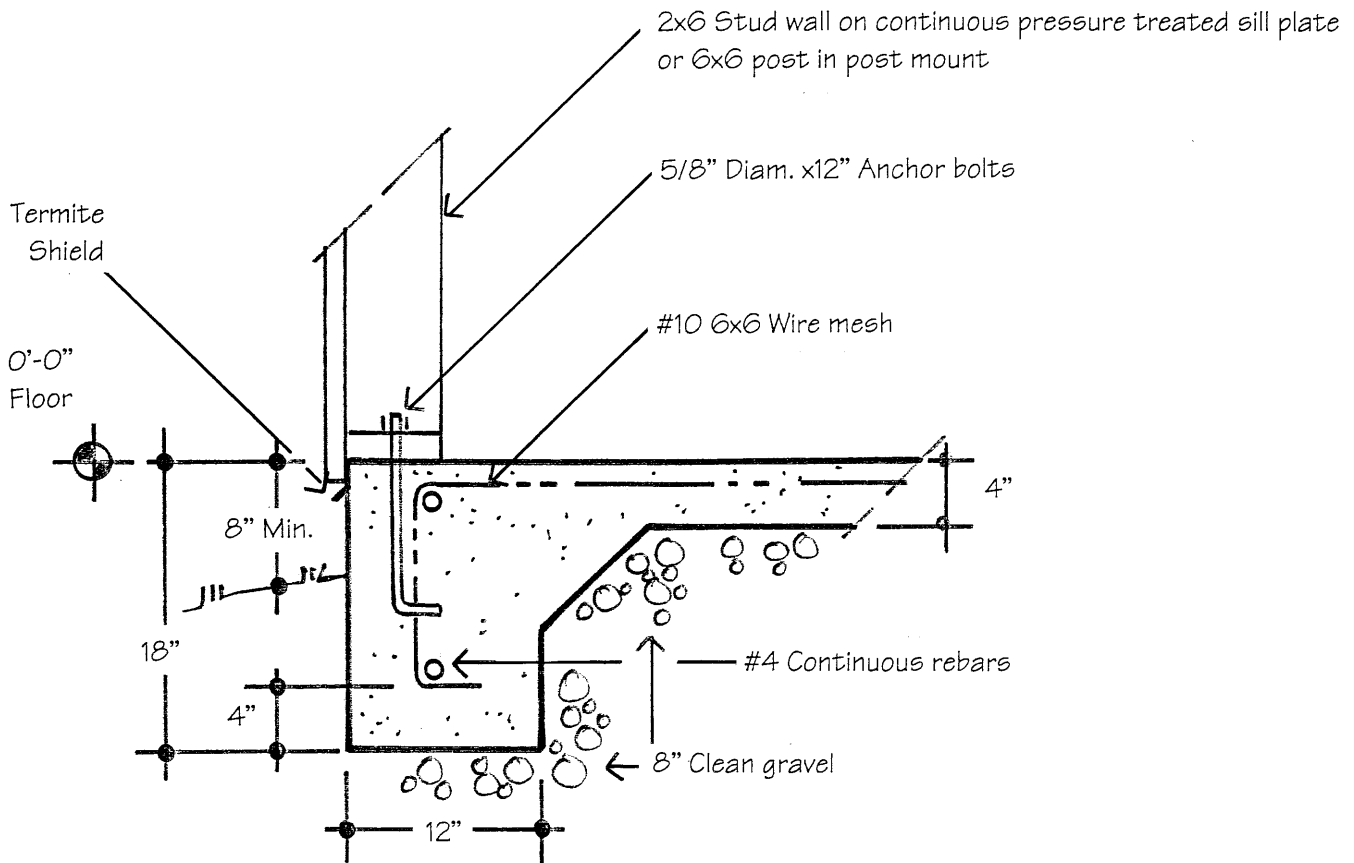
D2 – MAIN GARAGE DOOR FRAMING
 Not to Scale



D3 - MAIN GARAGE WALK DOOR & WINDOW FRAMING

Not to Scale

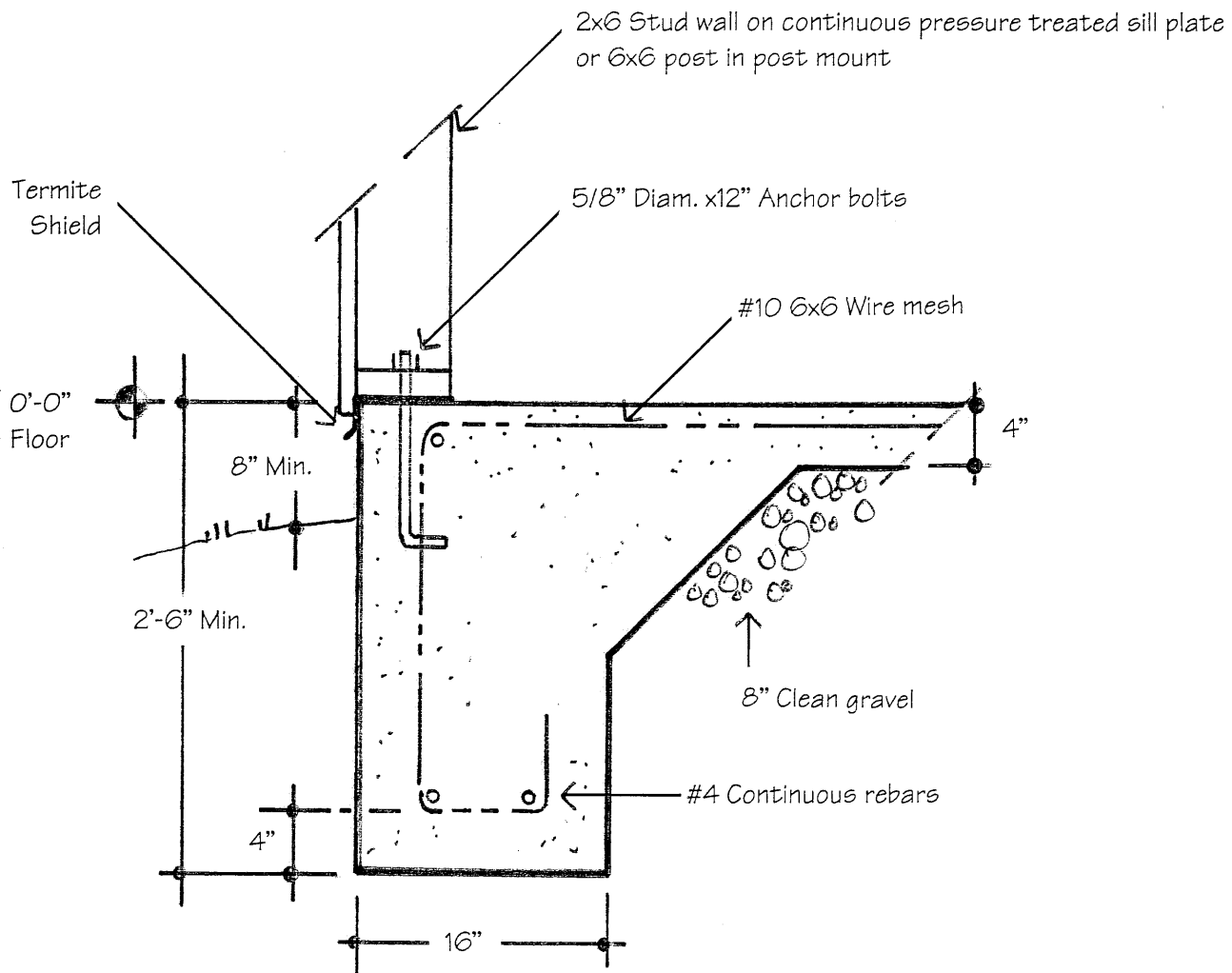
1. Triple 2x8 header.
2. Adjust dimensions to match door and window manufacturer's recommended R.O.



Provide anchor bolts at each post mount, within 12" of all sill ends and corners, and a maximum of 6' O.C. Each section of sill plate must have a minimum of two anchor bolts.

FD3 - THICKENED SLAB SECTION 1" = 1'-0"

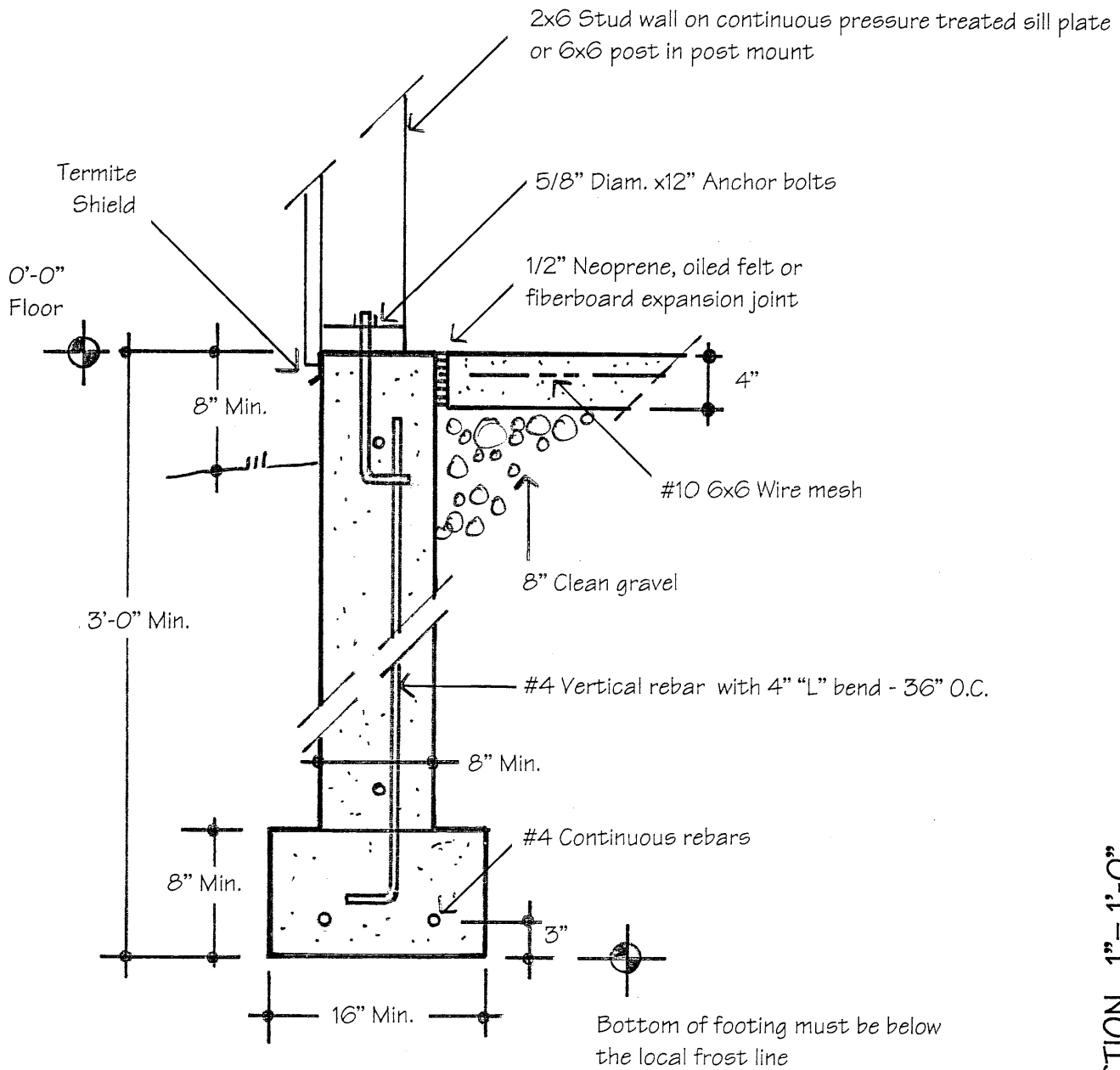
Use this as the foundation for the gable-end walls of the Main Garage and Expansion Sheds.



Provide anchor bolts at each post mount, within 12" of all sill ends and corners, and a maximum of 6' O.C. Each section of sill plate must have a minimum of two anchor bolts.

FD2 - MONOLITHIC SLAB SECTION 1" = 1'-0"

Use this optional foundation for the eave-side walls of the Main Garage and Expansion Sheds only in locations where the frost line is less than 20" below grade and on level sites.



Provide anchor bolts at each post mount, within 12" of all sill ends and corners, and a maximum of 6' O.C. Each section of sill plate must have a minimum of two anchor bolts.

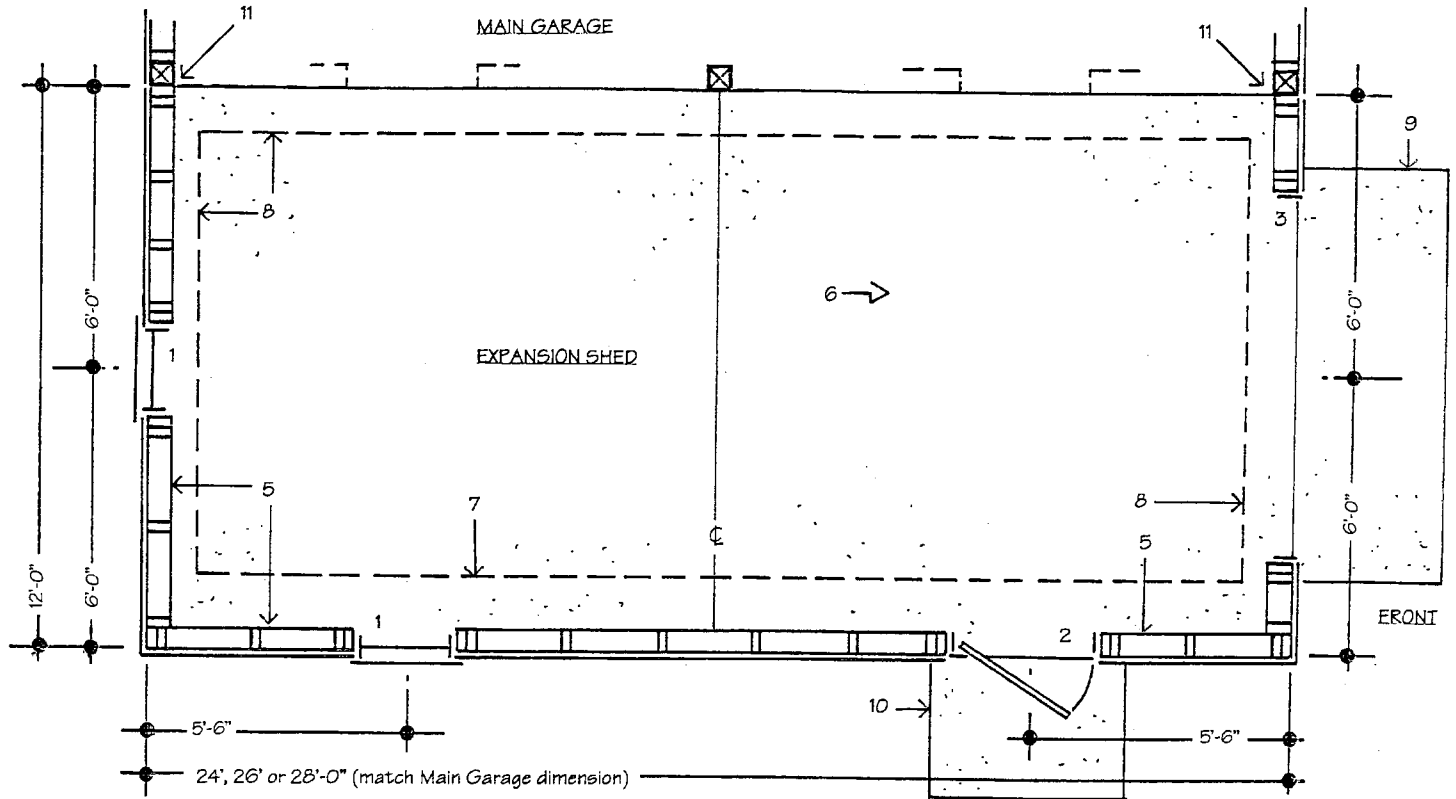
Foundation wall may extend above the floor slab height to adjust to the site's sloping grade.

Foundation wall may be thickened and notched to allow stone or brick facing.

FD1 - FROST WALL FOOTING SECTION 1" = 1'-0"

Use this foundation for the eave-side walls of the Main Garage and Expansion Sheds in locations where the frost line is more than 20" below grade and on sloping sites.

Mirror this plan for an Expansion Shed on the opposite side of the Main Garage
 Mirror the back wall to use as the front where a garage door is not required

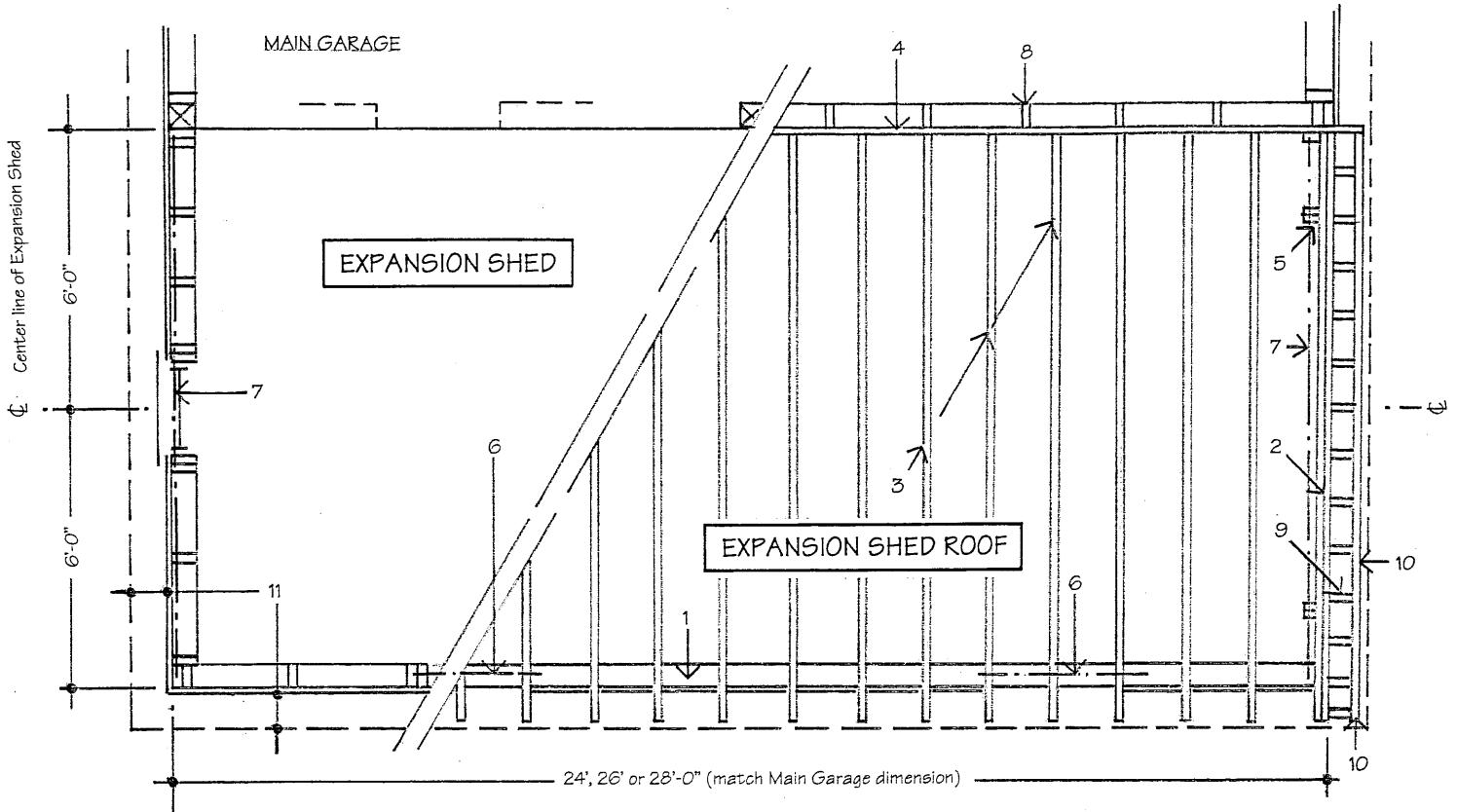


☒ - 6x6 Post ⊕ - Center line of building and expansion joint in floor slab

1. Windows should be 2'-0"x3'-0" fixed, awning, casement or double hung.
2. 3'-0"x7'-0" Walk door.
3. 8'-0"x7'-0" Garage door.
4. Stud walls, between posts, may be omitted for open access.
5. 2x6 Stud wall.
6. 4" reinforced concrete slab - Slope towards garage door at 1/8" per foot.
7. Frost wall or monolithic slab foundation - See Drawings FD1 and FD2.
8. Thickened slab - See Drawing FD3.
9. Concrete apron, or slope drive up to the Garage floor.
10. Min. 3'-0"x4'-0" Concrete stoop at the level of the Shed floor.
11. Bolt double 2x6 studs to Main Garage post with 1/2 " Diam.x7" lag bolts - 24" O.C.

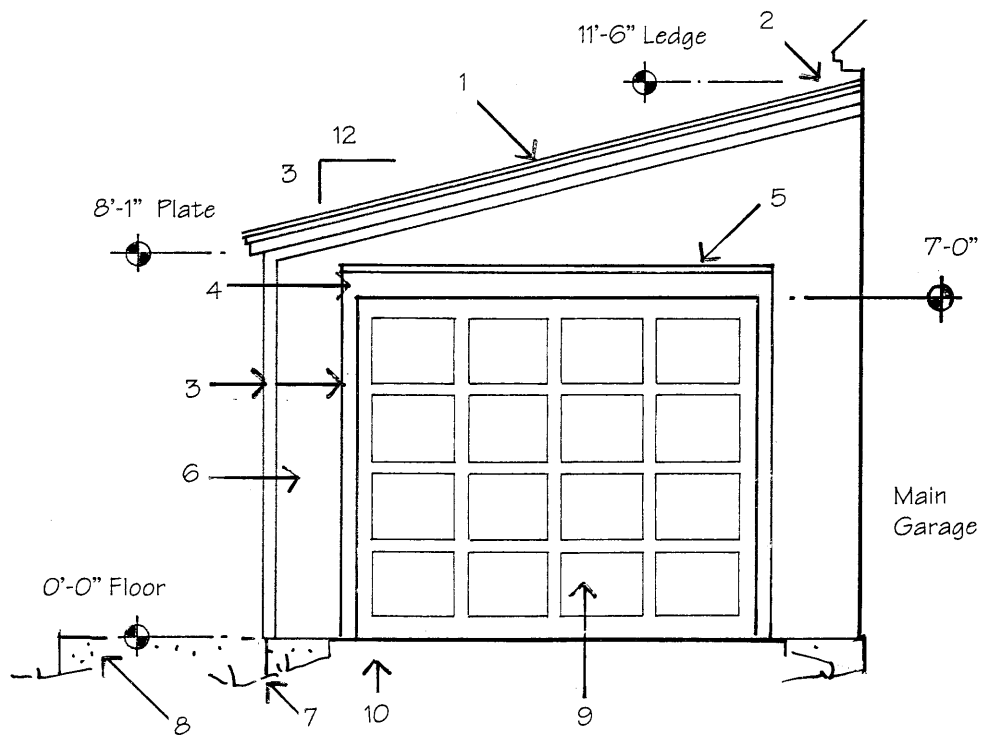
ES-P1 - EXPANSION SHED
 FLOOR PLAN
 1/4" = 1'-0"

Mirror this plan for an Expansion Shed on the opposite side of the Main Garage



1. Triple 2x6 plate
2. Double outside rafters
3. 2x8 Rafters - 16" O.C.
4. 2x10 Ledge
5. Notch outside rafters into wall studs
6. Triple 2x8 header
7. Triple 2x10 Headers - both gable end walls
8. Main Garage loft stud wall
9. 6" long, 2x4 Lookouts at 24" O.C.
10. 2x4 Flying rafters
11. 8" Roof overhang

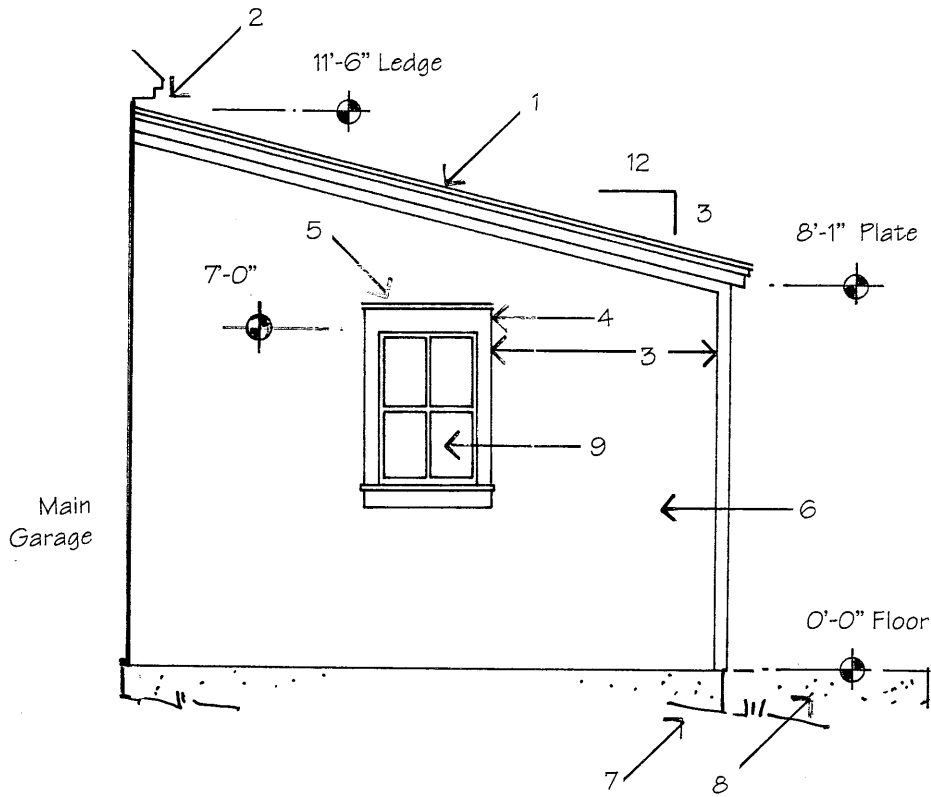
**ES-P2 - EXPANSION SHED
 ROOF FRAMING PLAN**
 1/4" = 1'-0"



1. Roofing, at owner's option, over 5/8" exterior grade plywood deck
2. Flash shed roof into Main Garage
3. 1x4 trim
4. 1x6 trim
5. Drip cap
6. Siding, at owner's option, over 1/2" exterior grade plywood
7. Slope grade away from building on all sides
8. Concrete stoop
9. 8'-0"x7'-0" Overhead garage door
10. Concrete apron

ES-E1 - EXPANSION SHED GARAGE FRONT ELEVATION

1/4" = 1'-0" Mirror this drawing for other orientations

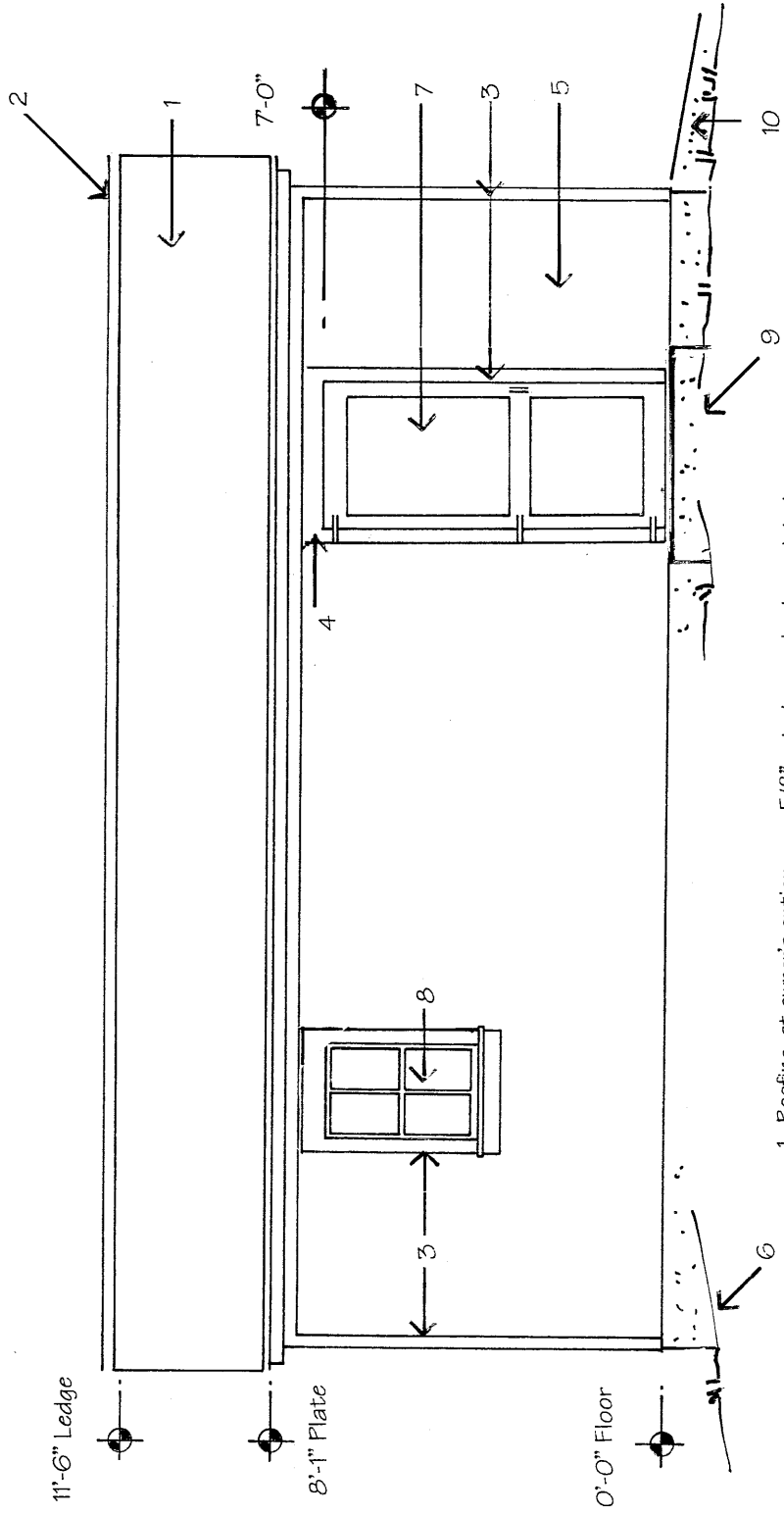


1. Roofing, at owner's option, over 5/8" exterior grade plywood deck
2. Flash shed roof into Main Garage
3. 1x4 trim
4. 1x6 trim
5. Drip cap
6. Siding, at owner's option, over 1/2" exterior grade plywood
7. Slope grade away from building on all sides
8. Concrete stoop
9. 2'-0"x3'-0" Fixed, awning, casement or double hung window

ES-E2 - EXPANSION SHED REAR ELEVATION

1/4" = 1'-0" Mirror this drawing for other orientations

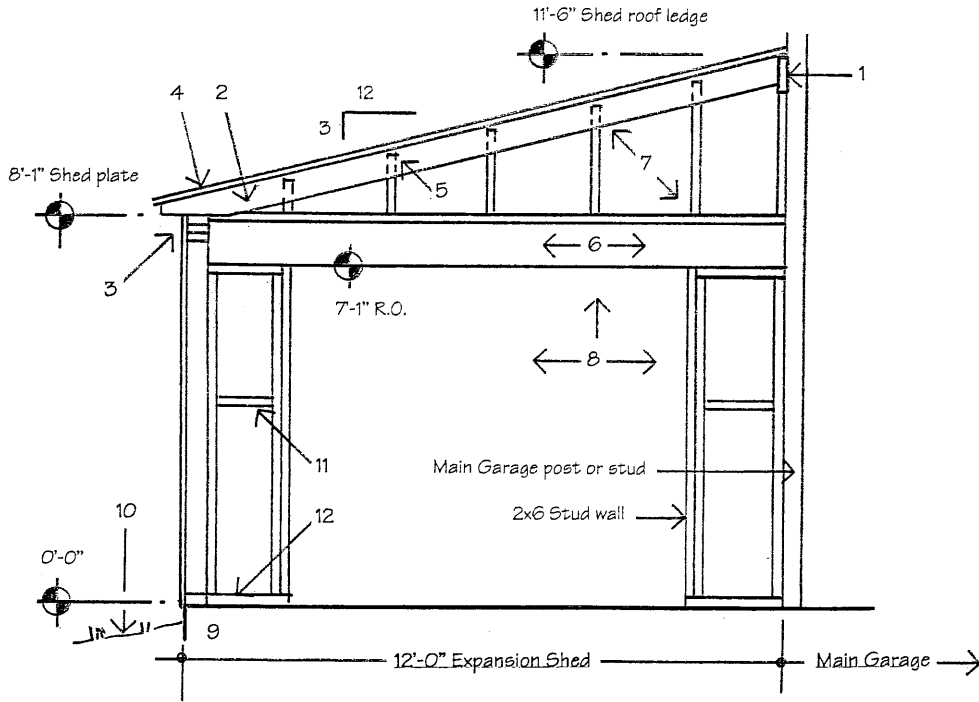
Use this drawing as the Front Elevation where a garage door is not required



1. Roofing, at owner's option, over 5/8" exterior grade plywood deck
2. Flash shed roof into Main Garage
3. 1x4 trim
4. 1x6 trim
5. Siding, at owner's option, over 1/2" exterior grade plywood
6. Slope grade away from building on all sides
7. 3'-0" x 7'-0" Door
8. 2'-0" x 3'-0" Fixed, awning, casement or double hung window
9. Concrete stoop
10. Concrete apron

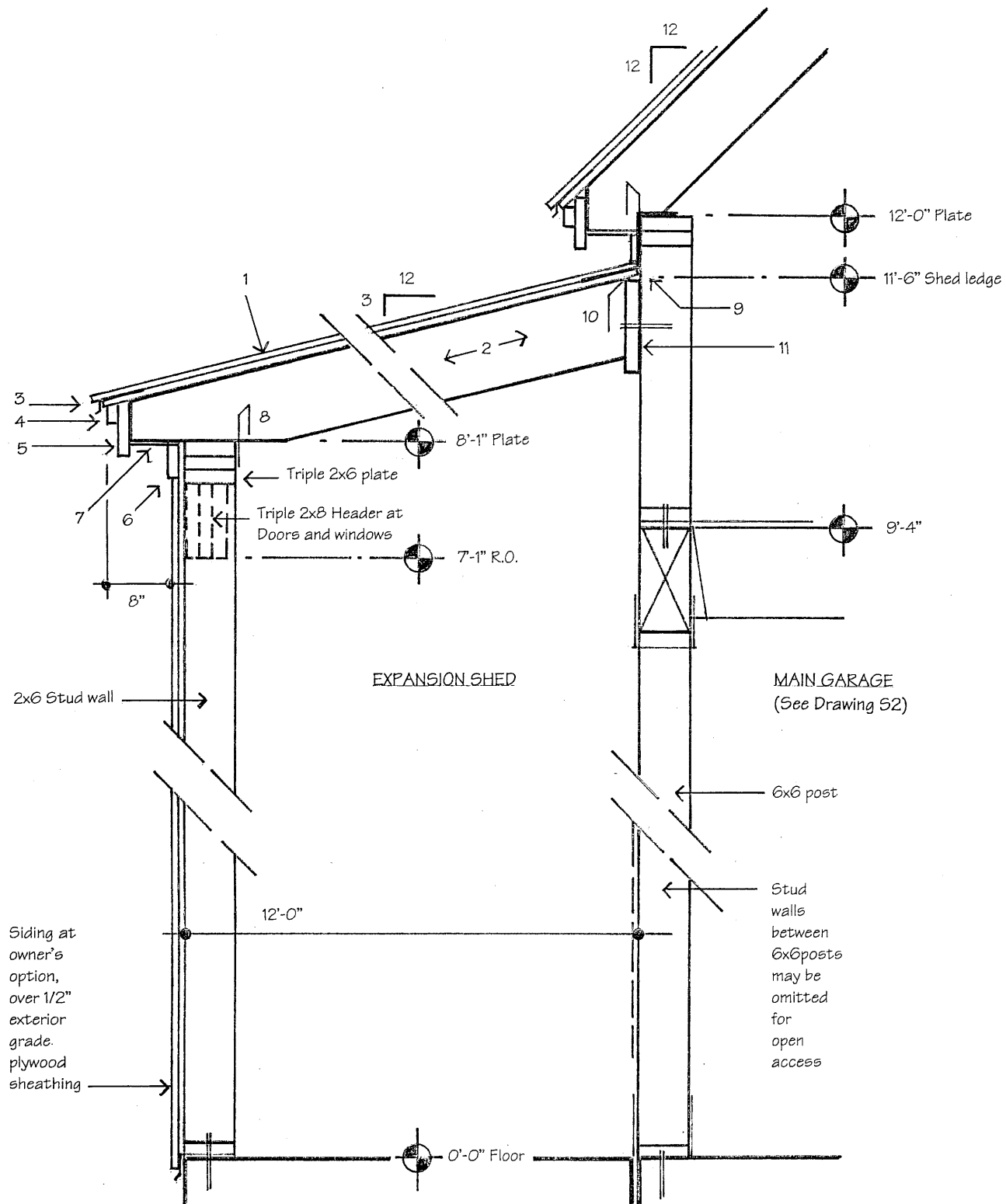
ES-E3 - EXPANSION SHED SIDE ELEVATION

1/4" = 1'-0" Mirror this drawing for other orientations



1. 2x10 Ledge
2. 2x8 Roof rafters - 16" O.C.
3. Triple 2x6 plate
4. Roofing, at owner's option, over 5/8" exterior plywood deck
5. Notch studs into outside rafters
6. Triple 2x10 Header across gable ends
7. 2x6 studs at 24" O.C., on 2x6 sill plates
8. Set dimensions to match garage door manufacturer's recommended R.O.
9. See Drawings FD1, FD2 and FD3 for concrete details
10. Slope grade away from building on all sides.
11. 2x6 Horizontal blocking at 4'-0" above the floor
12. Pressure treated 2x6 plates

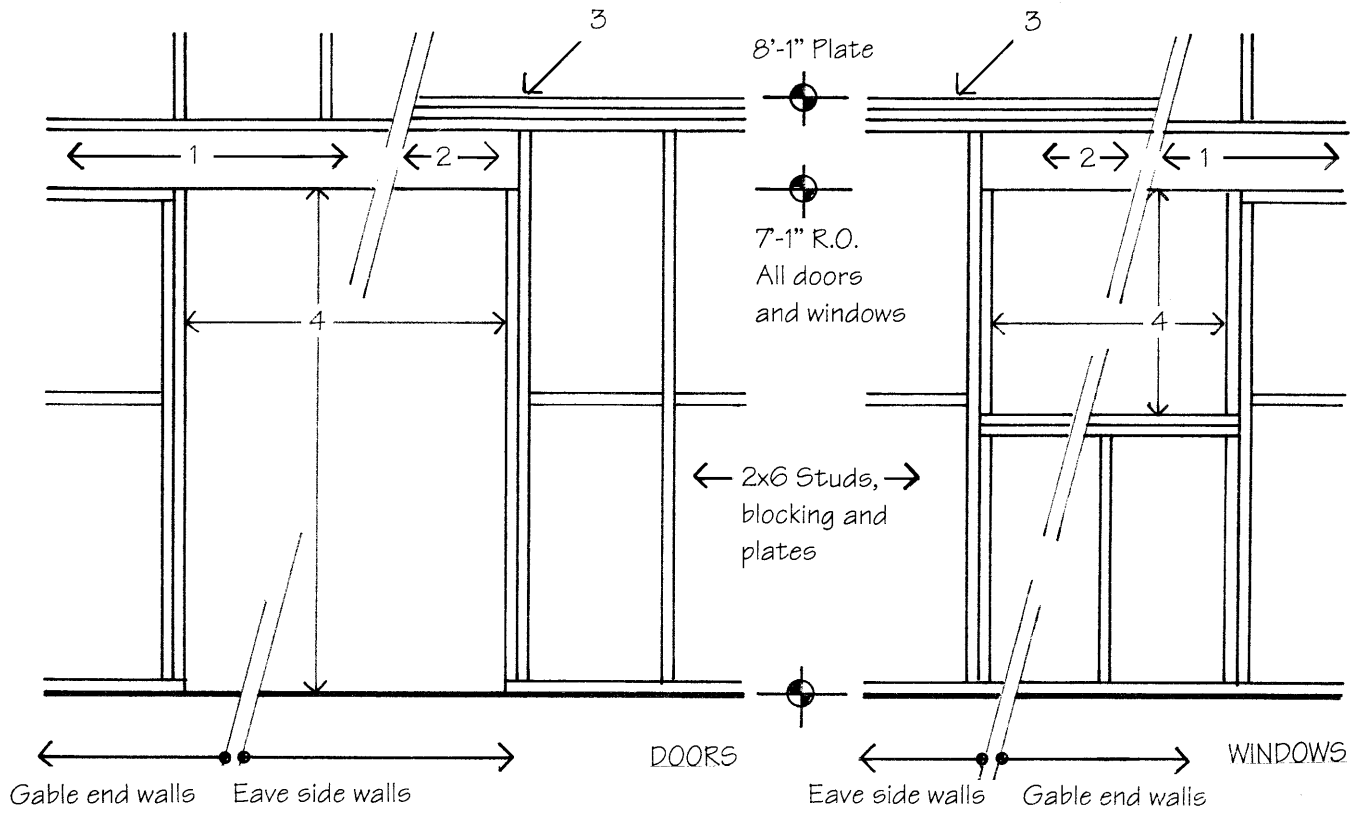
ES-S1 - EXPANSION SHED BUILDING SECTION
 1/4" = 1'-0"



1. Roofing, at owner's option, over 5/8" exterior grade plywood sheathing.
2. 2x8 Roof rafters - 16" O.C. Cut for flat bearing at plate.
3. Drip edge 4. 1x2 5. 1x6 6. 1x4 7. 1/4" Exterior plywood soffit
8. Simpson StrongTie #H1 or equal metal tie-down.
9. Flash Expansion Shed roof into Main Garage.
10. Simpson StrongTie #RR or equal rafter hangers.
11. 2x10 Shed ledge - Secure with 1/2" Diam. x 5" lag bolts at each stud.

ES-S2 - EXPANSION SHED WALL SECTIONS

3/4" = 1'-0"



1. Triple 2x10 header – Header runs across the full width of the gable end walls
2. Triple 2x8 header.
3. Triple 2x6 plate.
4. Adjust dimensions to match door and window manufacturer's recommended R.O.

**ES-D1 – EXPANSION SHED
 DOOR & WINDOW FRAMING**
 Not to Scale