Oak Lawn Coach-House Style Garage, Workshop and Car Barn Plans

www.TodaysPlans.com Design Set #OC-2424D

More than eighteen different garages, vehicle barns and workshops can be built with the help of this set of plans. The 24' deep Main Building can be built at 24', 26' or 28' wide. It can have full stairs to the storage Loft or inexpensive pull-down stairs. Expansion Sheds can be added to either side for more parking, storage or workshop space. Vehicle doors can be hinged or overhead garage doors in a variety of sizes. A loft door and lift post are optional. See the Sample Layouts for just a few of the possible designs.

Material Lists

Building Material Lists for all size Main Buildings and Expansion Sheds can be found online at:

www.TodaysPans.com

TERMS OF USE

By using these drawings, the 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.

The publisher accepts no liability for any use 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 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 must 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:

All stock plans like these are designed to work in limited locations. To comply with specific local building codes, ordinances and weather conditions and for the best quality of construction these plans must be reviewed, and modified as necessary by a Professional Engineer.

These drawings must 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:
www.ncees.org/licensure
Most of those websites have lists of licensed Professional Engineers.

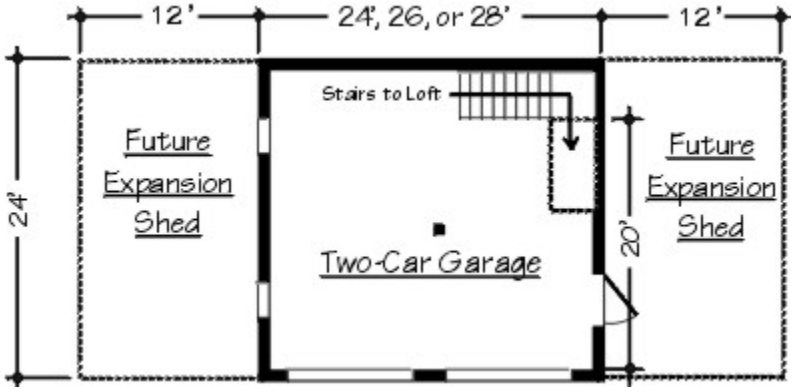
2. Building Components:

A variety of specialty products for this building can be found on the Internet. The **Building Help** resource directory at **www.todaysplans.com** features overhead doors, wrought iron hardware, barn doors, rolling track hardware, carriage house style garage doors and much more.

3. Cupolas:

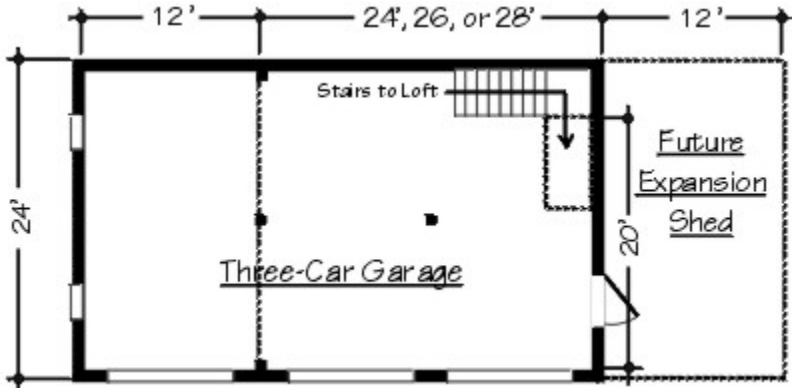
An optional cupola for this design should be a minimum of 30" wide on each face of its base and a minimum of 40" in height above the building's ridge. It should be centered on the main ridge as shown on the Elevation drawings.

A selection of prefabricated cupolas, cupola plans and weathervanes can be found in the **Building Help** resource directory at **www.todaysplans.com** .



This two-car garage is referred to as the "Main Building" throughout this set of plans. It's the core of all the possible designs. It can be built at the optional widths shown above, with a full staircase to the Loft or with innexpensive pull-down stairs, and with a variety of exterior finishes and details.

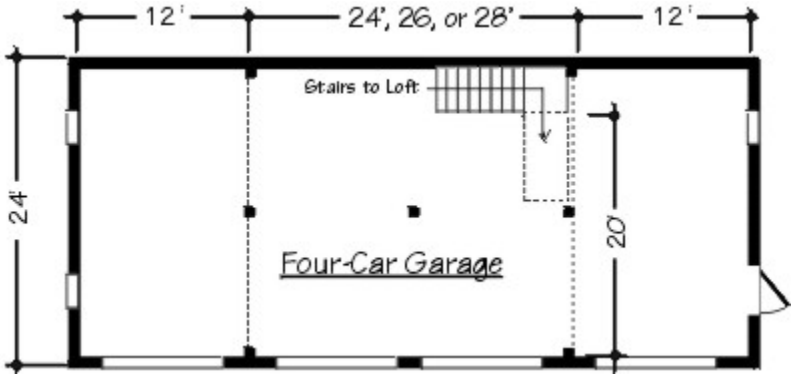
See the Index page for a list of drawings. Build the Main Building using drawings P1 through FD3.



Add a 12'x24' Expansion Shed to either side of the Main Building to create a three-bay barn for cars, trucks or other vehicles.

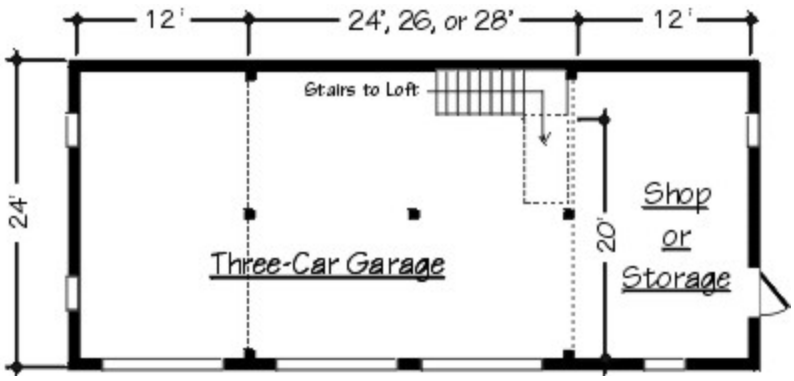
See the Index page for a list of drawings. Build the Main Building using drawings P1 through D4. Use drawings ES1-P1 through ESD-1 for the Expansion Shed. Foundation details FD1, FD2 and FD3 should be used for both the Main Building and any Expansion Shed.

Refer to Drawings E3 and E2 for the Loft Door and Lift Post



Add a 12'x24' Expansion Shed to each side of the Main Building to create a four-bay garage.

See the Index page for a list of drawings. Build the Main Building using drawings P1 through D4. Use drawings ES1-P1 through ESD-1 for the Expansion Sheds. Foundation details FD1, FD2 and FD3 should be used for both the Main Building and any Expansion Shed.

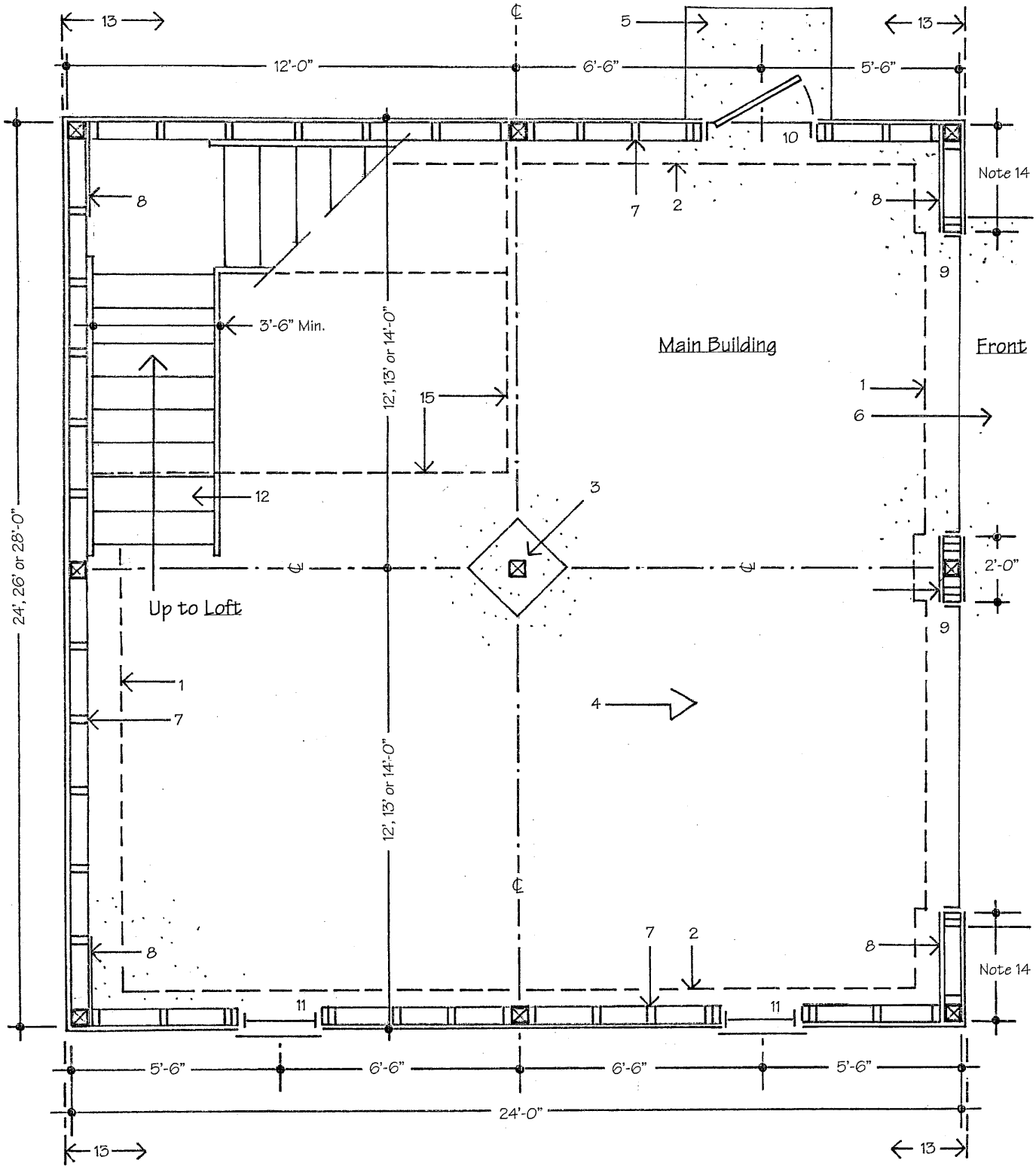


Use these plans to create this practical utility building. Add a 12'x24' Expansion Shed with a garage door to one side of the Main Building. Add another Expansion Shed, with the optional windowed front, to the opposite side.

See the Index page for a list of drawings. Build the Main Building using drawings P1 through D4. Use drawings ES1-P1 through ESD-1 for the Expansion Sheds. Foundation details FD1, FD2 and FD3 should be used for both the Main Building and any Expansion Shed.

Refer to drawings E3 and E2 for the Loft Door and Lift Post

℄ - Center line of building and expansion joint in floor slab
☒ - 6x6 Post on anchored post mount



Refer to page P2 for Notes

Mirror this drawing for an opposite orientation of the stairs and walk door

MAIN BUILDING FLOOR PLAN – P1

1/4" = 1'-0"

MAIN BUILDING FLOOR PLAN NOTES – SEE PLAN P1

1. Frost wall or monolithic slab foundation – See drawings FD1 and FD2
2. Thickened Slab – See drawing FD3
3. 30"x30"x18" Deep concrete post footing – isolate with expansion joints
4. 4" Reinforced concrete slab slope towards large doors at 1/8" per foot
5. Min. 3'-0" x 4'-0" concrete stoop at the level of the building floor
6. Concrete apron, or slope driveway up to the level of the building floor
7. 2x6 Stud wall with studs at a maximum of 24" on center
8. 1/2" Plywood bracing panel – Nail at 6" O.C. to all studs, posts and braces
9. 8'-0" or 9'-0" wide overhead garage door or two 4'-0" wide hinged doors.
   These doors should be 7'-0" or 8'-0" high, with optional 12" high transom window above
10. 3'-0" wide x 7'-0" high walk door
11. 2'-0" wide x 3'-0" high fixed, awning, casement or double hung windows
12. Provide code-compliant staircase, handrail and Loft railing
13. Area of optional Expansion Shed – See Expansion Shed drawings
14. Front corner dimensions vary with the optional width of the building and with the optional R.O. width of the doors. Front corner dimensions should be equal and should be a minimum of 1'-10"
15. Line of Loft opening above.

Refer to manufacturers' specifications for R.O.s of doors and windows

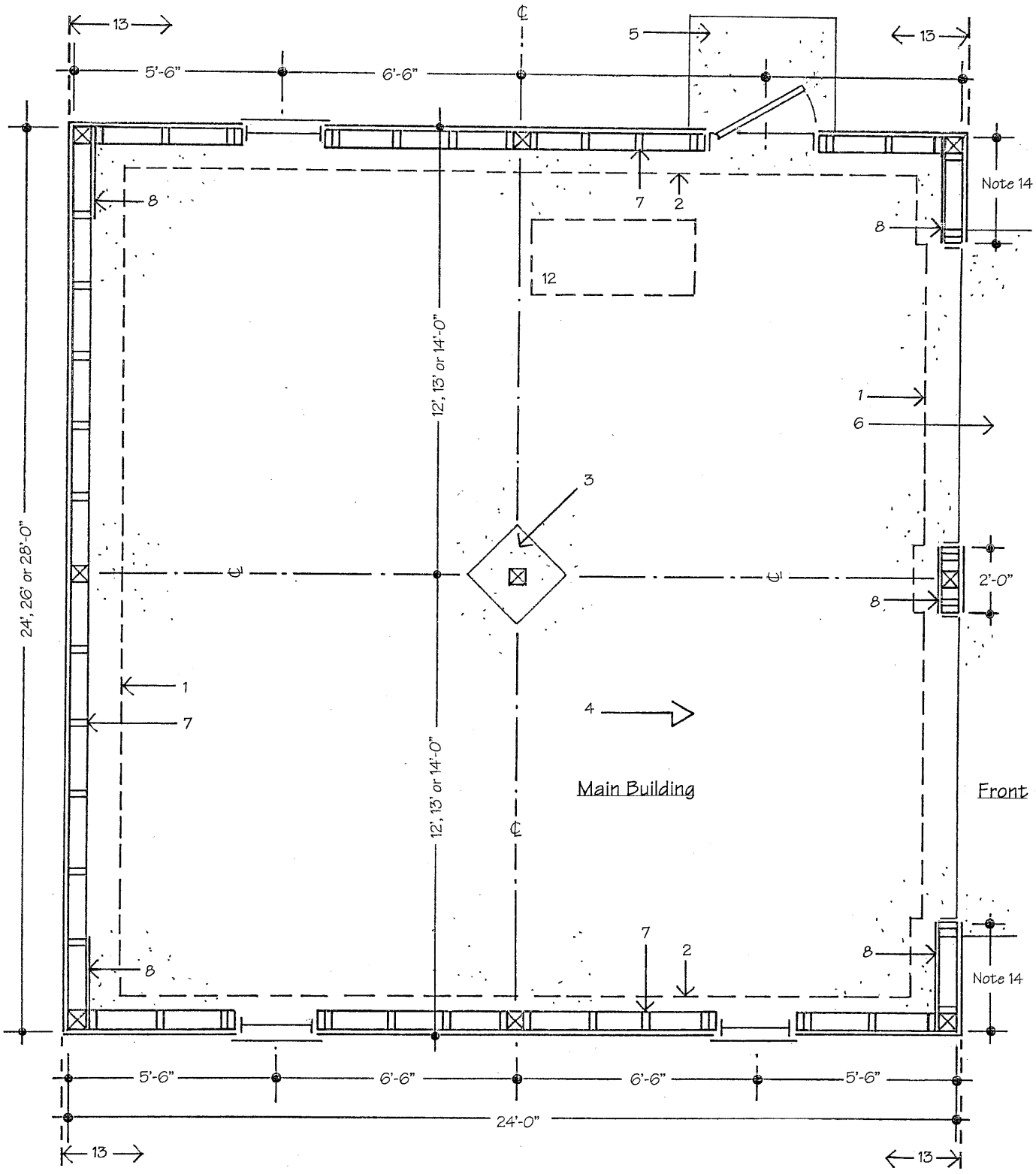
MAIN BUILDING OPTIONAL FLOOR PLAN NOTES – SEE PLAN P3

1. Frost wall or monolithic slab foundation – See drawings FD1 and FD2
2. Thickened Slab – See drawing FD3
3. 30"x30"x18" Deep concrete post footing – isolate with expansion joints
4. 4" Reinforced concrete slab slope towards large doors at 1/8" per foot
5. Min. 3'-0" x 4'-0" concrete stoop at the level of the building floor
6. Concrete apron, or slope driveway up to the level of the building floor
7. 2x6 Stud wall with studs at a maximum of 24" on center
8. 1/2" Plywood bracing panel – Nail at 6" O.C. to all studs, posts and braces
9. 8'-0" or 9'-0" wide overhead garage door or two 4'-0" wide hinged doors.
   These doors should be 7'-0" or 8'-0" high, with optional 12" high transom window above
10. 3'-0" wide x 7'-0" high walk door
11. 2'-0" wide x 3'-0" high fixed, awning, casement or double hung windows
12. Pull-down stairs to loft – Frame with double Loft joists and double 2x10 blocking
13. Area of optional Expansion Shed – See Expansion Shed drawings
14. Front corner dimensions vary with the optional width of the building and with the optional R.O. width of the doors. Front corner dimensions should be equal and should be a minimum of 1'-10"

Refer to manufacturers' specifications for R.O.s of doors and windows

MAIN BUILDING FLOOR PLAN NOTES - P2

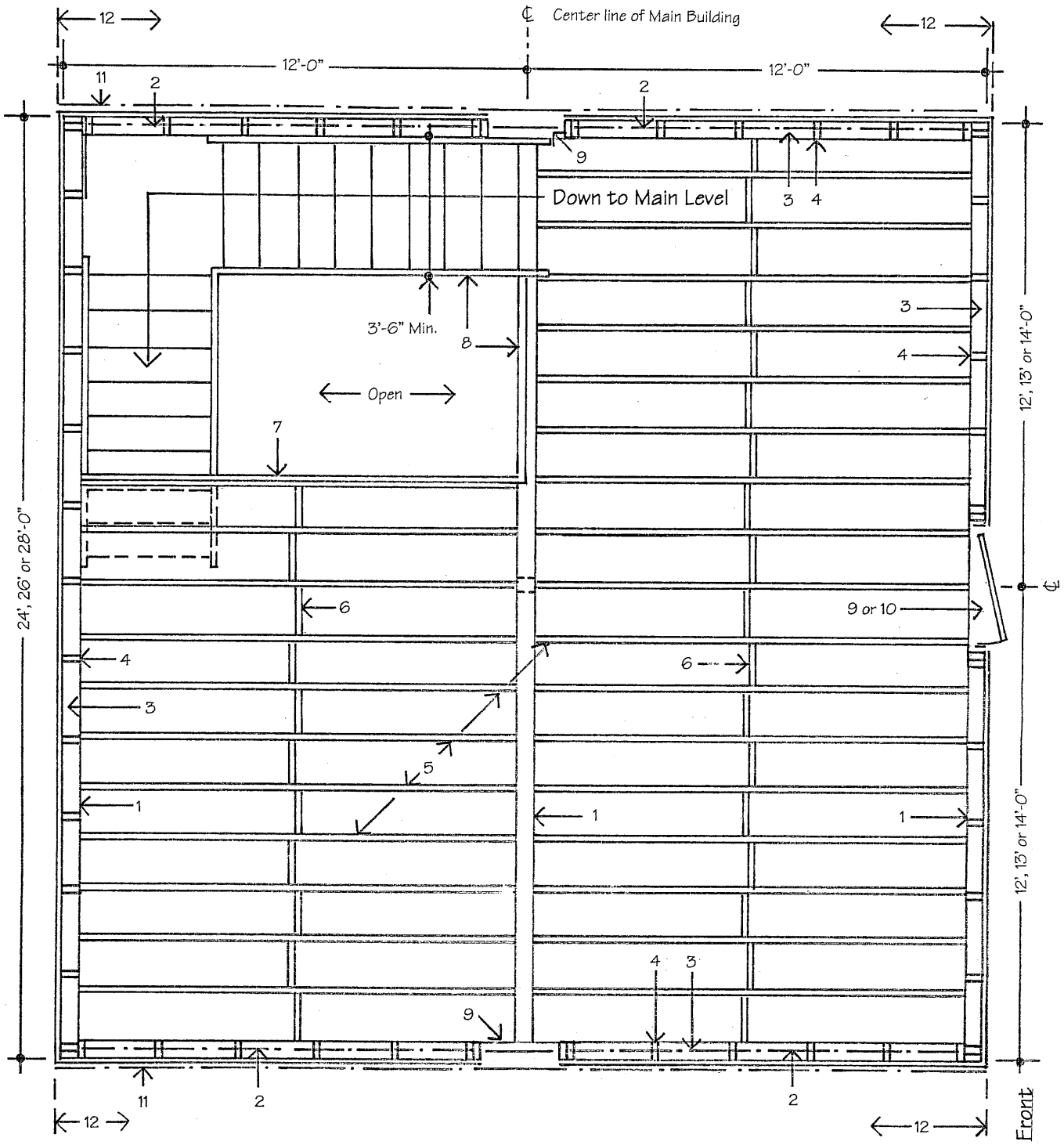
℄ - Center line of building and expansion joint in floor slab
⊠ - 6x6 Post on anchored post mount



Refer to page P2 for Notes
Mirror this drawing for an opposite orientation of the walk door

MAIN BUILDING OPTIONAL FLOOR PLAN – P3

1/4" = 1'-0"

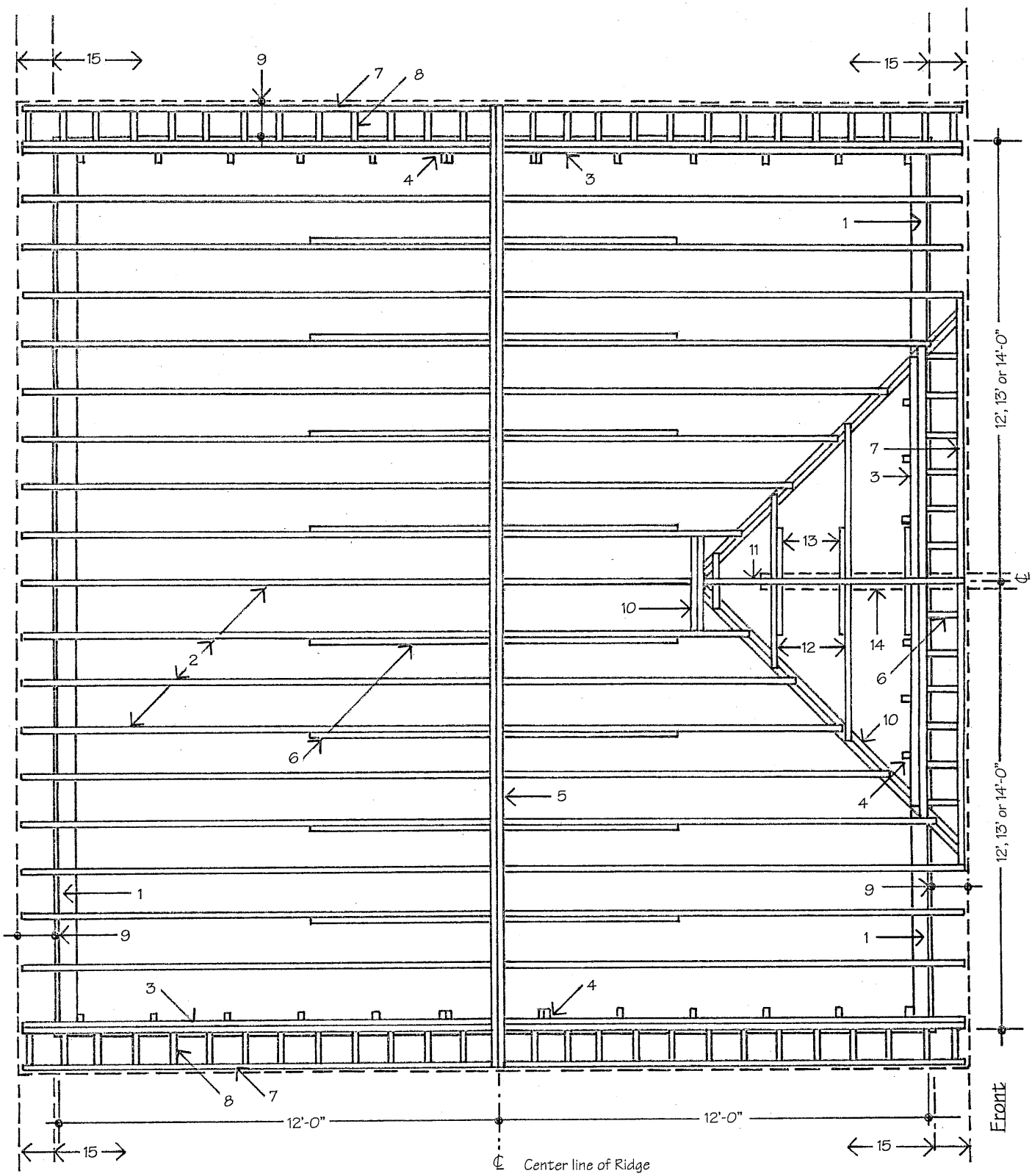


Refer to page P6 for Notes

Mirror this drawing for an opposite orientation of the stairs

MAIN BUILDING LOFT FRAMING PLAN – P4

1/4" = 1'-0"



Refer to page P6 for Notes

MAIN BUILDING ROOF FRAMING PLAN – P5

1/4" = 1'-0"

MAIN BUILDING LOFT FRAMING PLAN NOTES – SEE PLAN P4

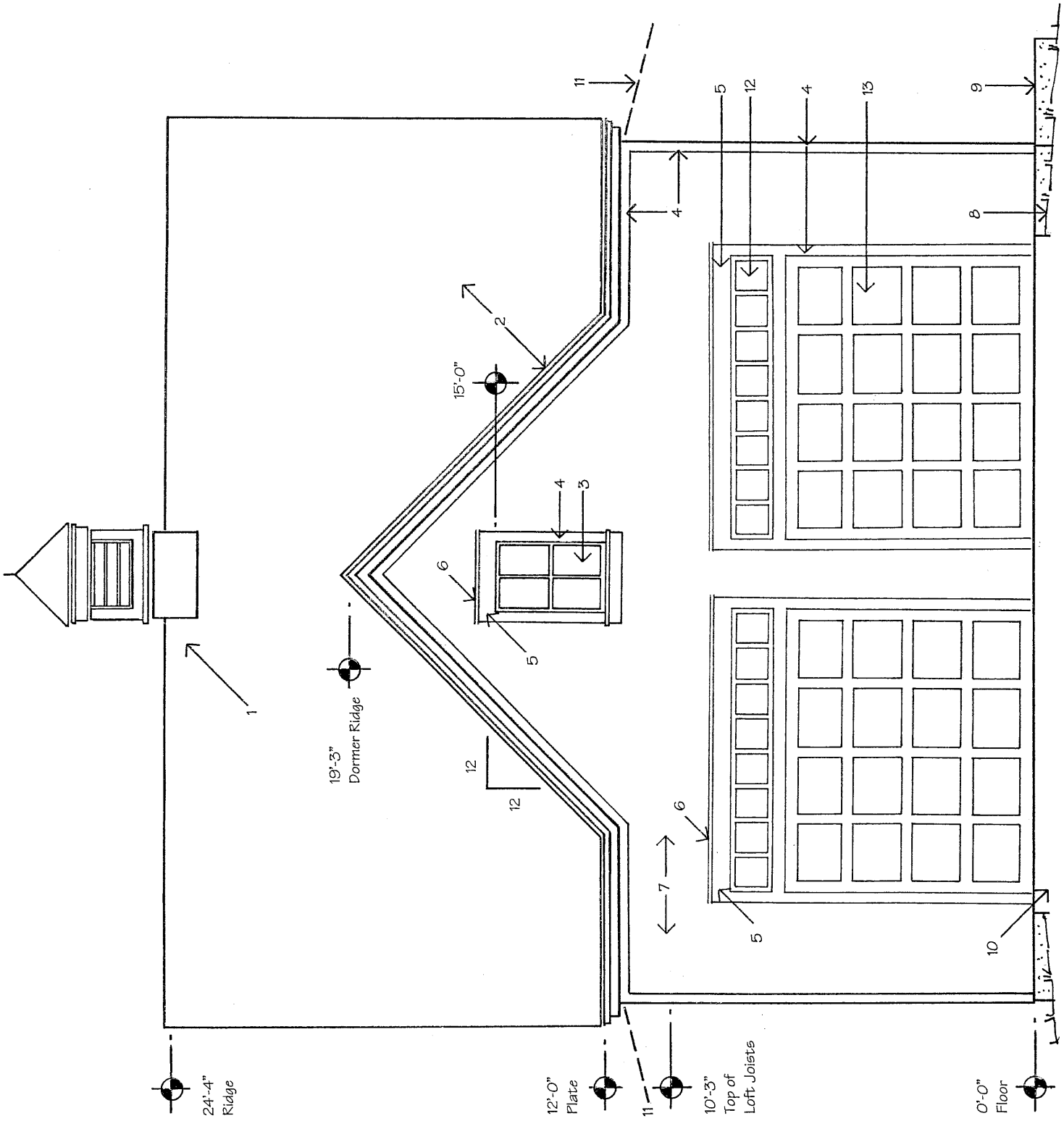
1. 5 1/2" x 10 1/2" Glulam beam (below wall plate at outside walls)
2. Triple 2x10 below
3. 2x6 Plate
4. 2x6 Stud wall with studs at a maximum of 24" on center
5. 2x10 Joists on joist hangers
6. 2x10 Staggered bridging at the center of joist spans
7. Frame Loft opening with double 2x10 joists
8. Provide code-compliant staircase, handrail and Loft railing
9. 2'-0" wide x 3'-0" high fixed, awning, casement or double hung windows
10. Optional 3'-0" wide x 4'-0" high, hinged Loft door
11. 2x10 Ledge for roof of optional Expansion Shed – Bolt into all studs
12. Area of optional Expansion Shed – See Expansion Shed drawings

Refer to manufacturers' specifications for R.O.s of doors and windows

MAIN BUILDING ROOF FRAMING PLAN NOTES – SEE PLAN P5

1. Double 2x6 Plate
2. 2x8 Rafters at 16" O.C.
3. Double outside rafters
4. Notch outside rafters into gable end wall studs
5. Double 2x8 Ridge
6. 2x6 Collar ties at every other rafter pair
7. 2x4 Flying rafters
8. 6" Long 2x4 lookouts at 24" O.C.
9. 8" Roof overhang – all sides
10. Double 2x10s
11. 2x8 Dormer ridge
12. 2x10 Dormer rafters at 24" O.C.
13. 2x6 Collar ties at all rafter pairs
14. Optional 4x6 lift post
15. Area of optional Expansion Shed – See Expansion Shed drawings

MAIN BUILDING LOFT & ROOF FRAMING PLAN NOTES – P6



Refer to page E2 for Notes

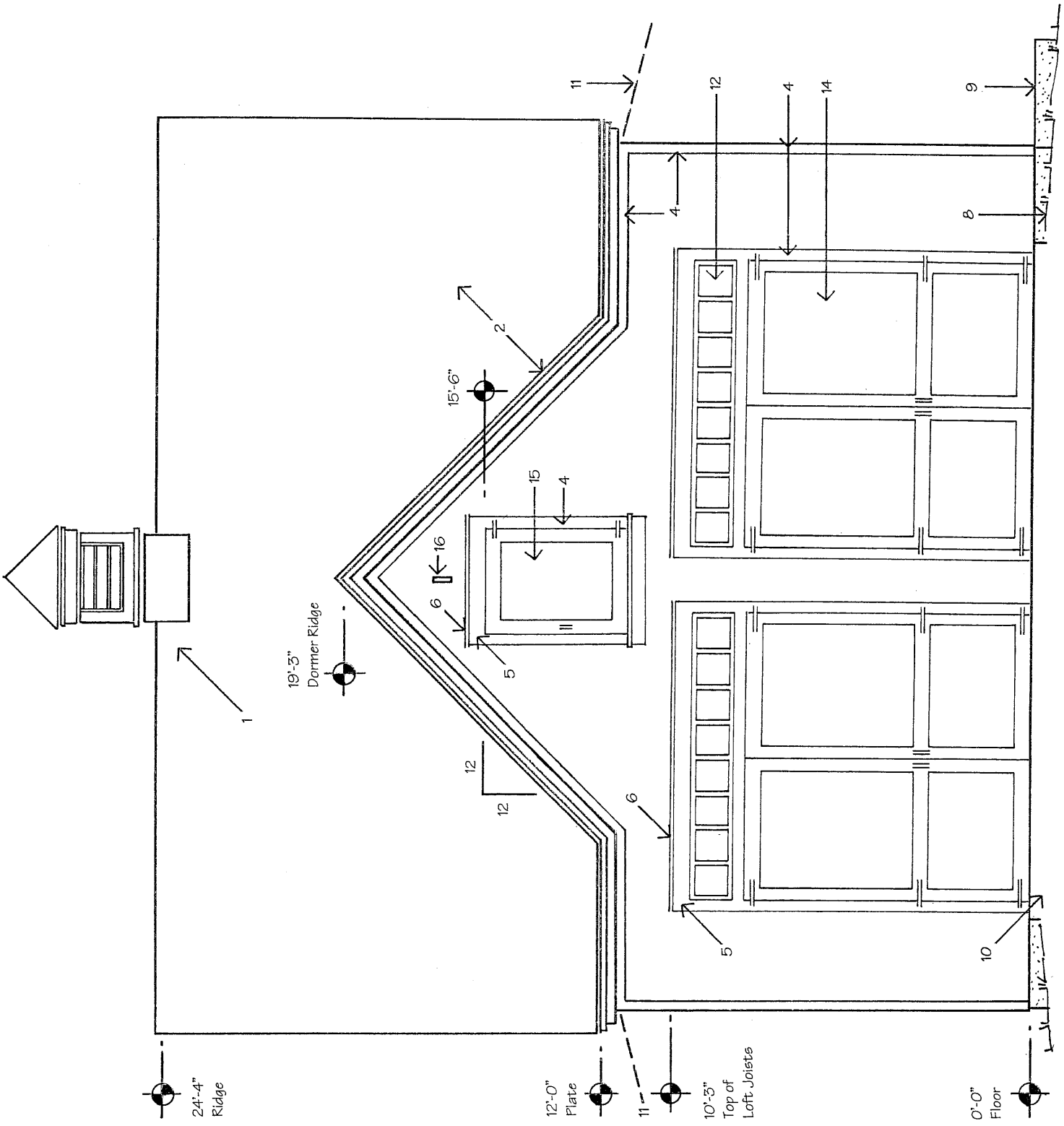
Mirror this drawing for an opposite orientation of the walk door

MAIN BUILDING FRONT ELEVATION – E1

1/4" = 1'-0"

MAIN BUILDING ELEVATION NOTES
SEE ELEVATIONS E1, E3, E4, E5 and E6

1. Optional prefab cupola should be a minimum of 30" wide on each face of its base and a minimum of 48" high
2. Roofing, at owner's option, over 5/8" exterior grade plywood
3. 2'-0" wide x 3'-0" high fixed, awning, casement or double hung window
4. 1x4 Trim
5. 1x6 Trim
6. Drip cap
7. Siding, at owner's option over ½" exterior grade plywood
8. Slope grade away from building on all sides
9. Concrete stoop
10. Concrete apron, or slope driveway up to the level of the floor slab
11. Line of optional Expansion Shed – see Expansion Shed drawings
12. 12" high, custom fixed glass transom window – Optional on all doors, but recommended for 7'-0" high vehicle doors. Mount 1x6 trim and drip cap directly above doors when transom window is not used
13. 8'-0" or 9'-0" wide x 7'-0" or 8'-0" high overhead garage door
14. Optional hinged doors - Two 4'-0" wide x 7'-0" or 8'-0" high hinged doors.
15. Optional 3'-0" wide x 4'-0" high, hinged Loft door
16. Optional 4x6 Lift post – Mount on triple 2x8 header at outside wall and secure tightly to the underside of three collar ties with steel strapping or angle brackets
17. Screened and louvered vent
18. 3'-0" wide x 7'-0" high walk door
19. 2'-0" wide x 3'-0" high fixed, awning, casement or double hung window if full staircase is not used – See Main Building Optional Floor Plan P3

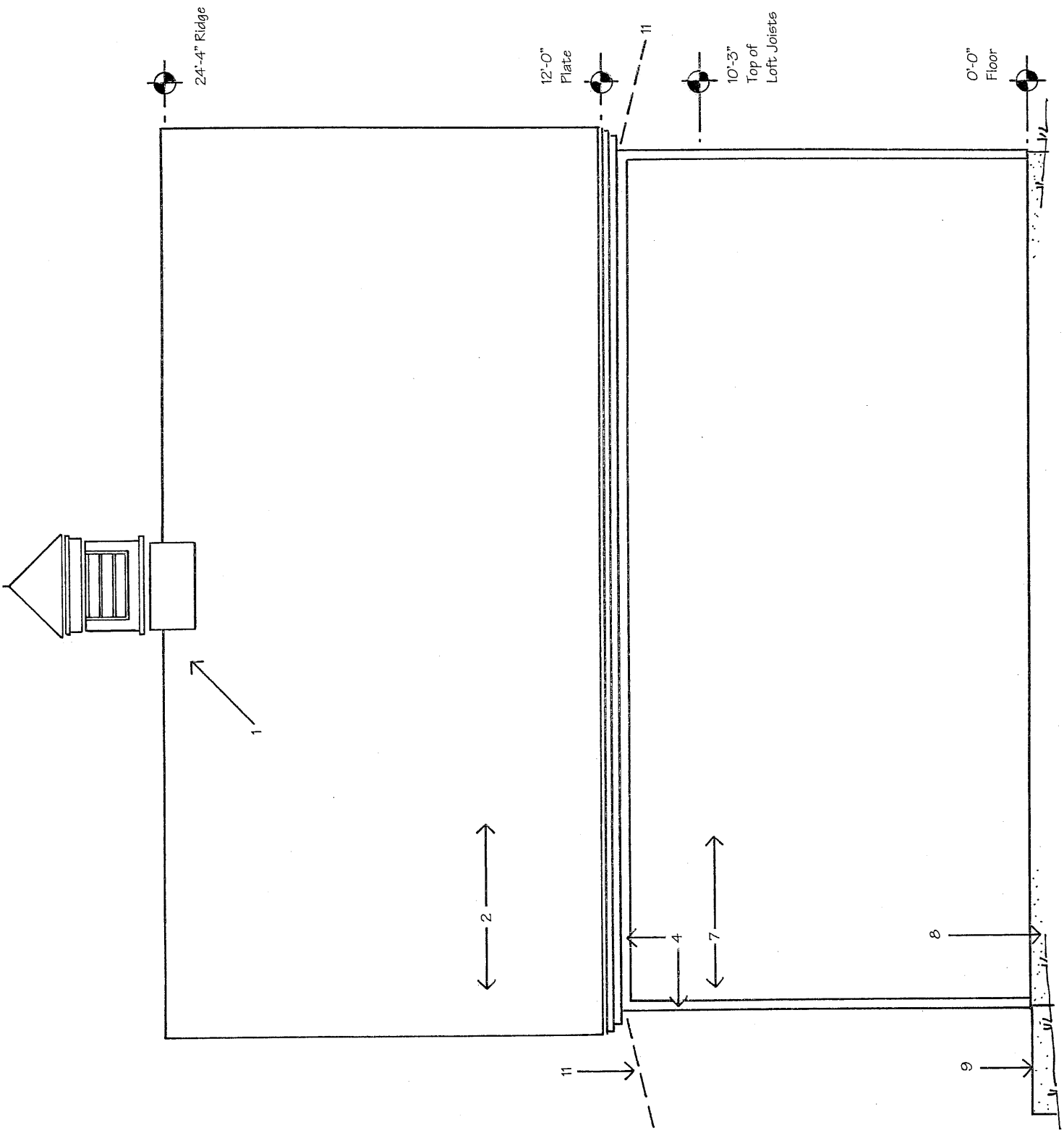


Refer to page E2 for Notes

Mirror this drawing for an opposite orientation of the walk door

MAIN BUILDING FRONT ELEVATION OPTIONS – E3

1/4" = 1'-0"

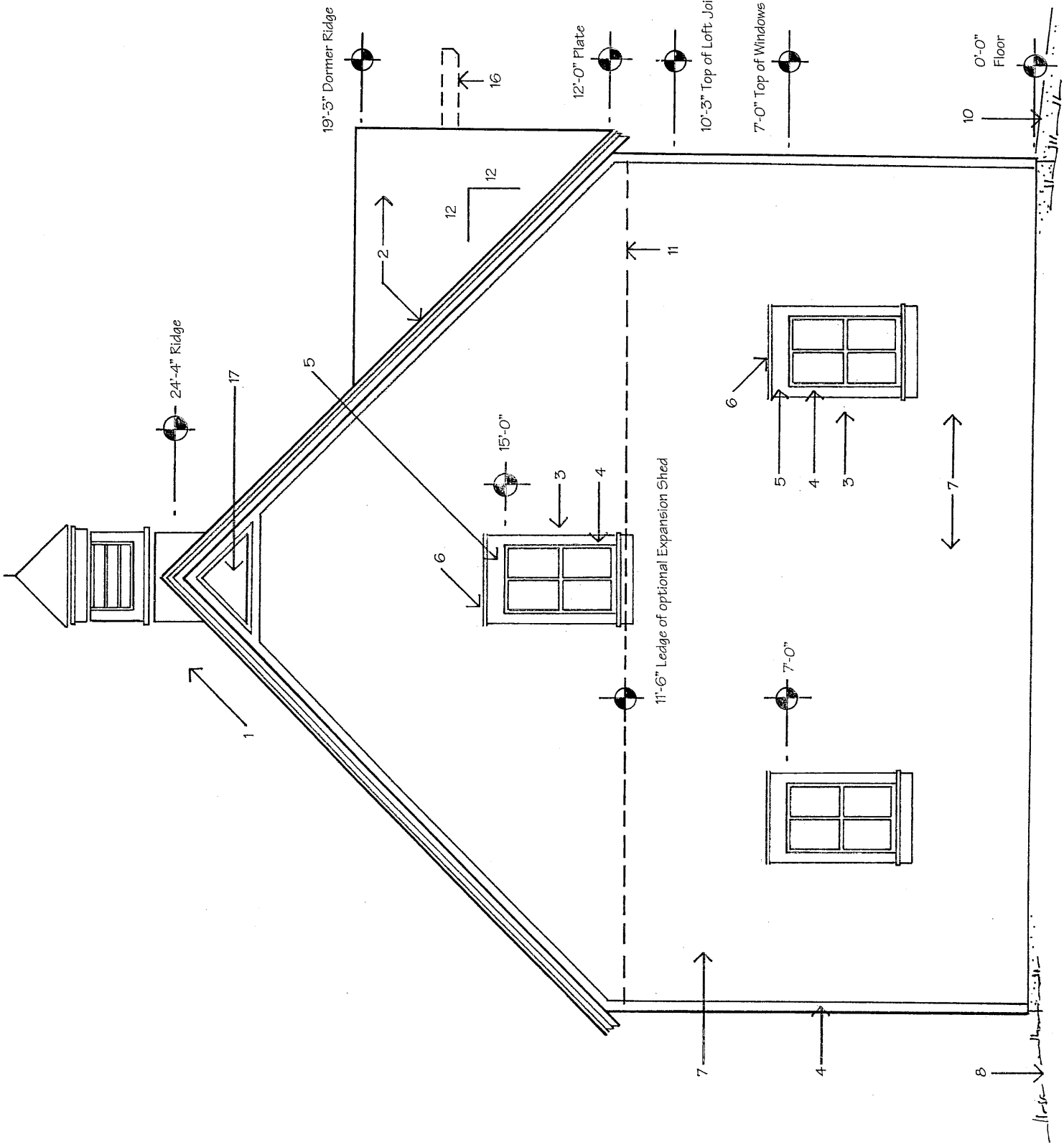


Refer to page E2 for Notes

Mirror this drawing for an opposite orientation of the walk door

MAIN BUILDING REAR ELEVATION – E4

1/4" = 1'-0"

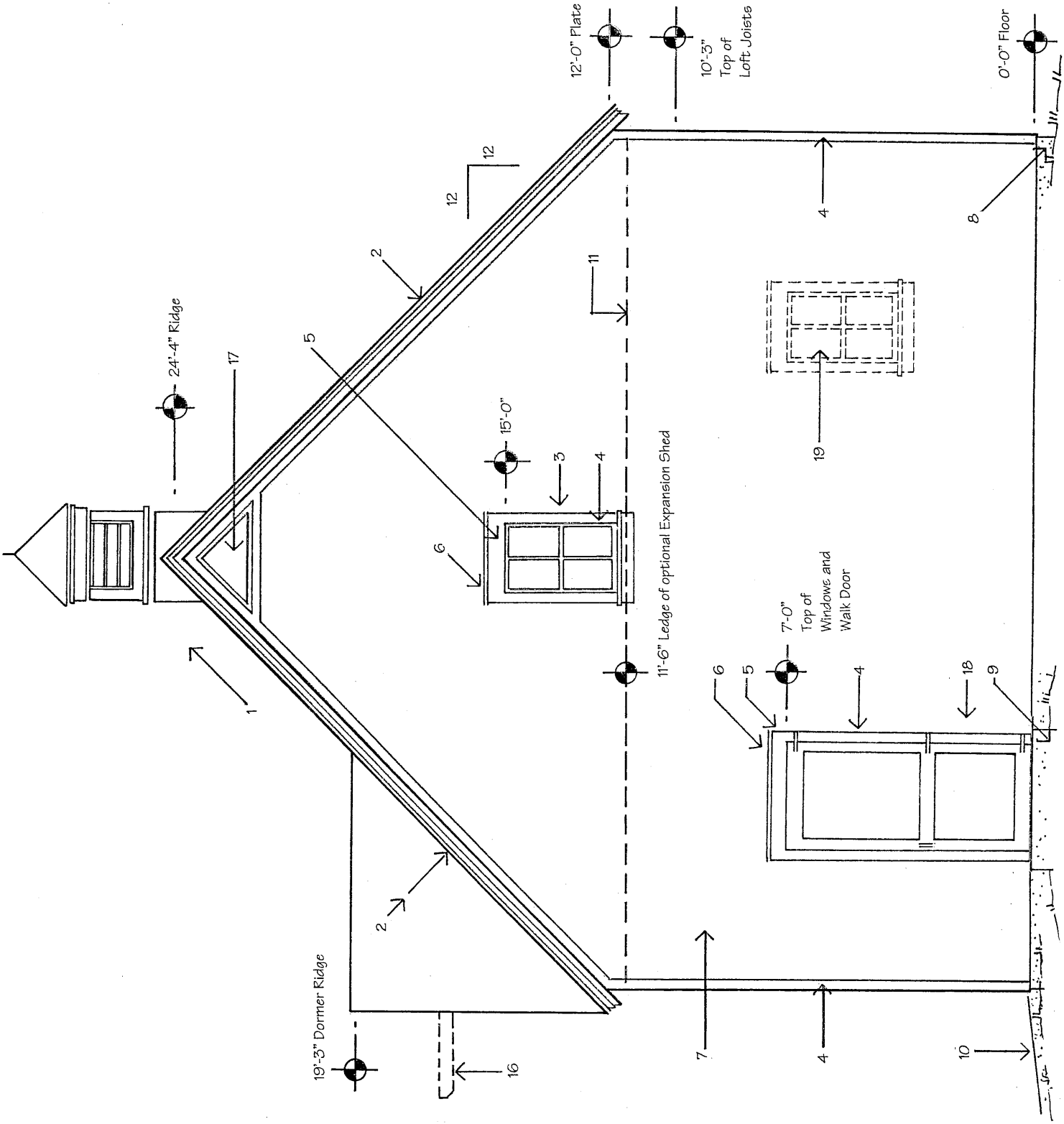


Refer to page E2 for Notes

Mirror this drawing for an opposite orientation

MAIN BUILDING SIDE ELEVATION – E5

1/4" = 1'-0"

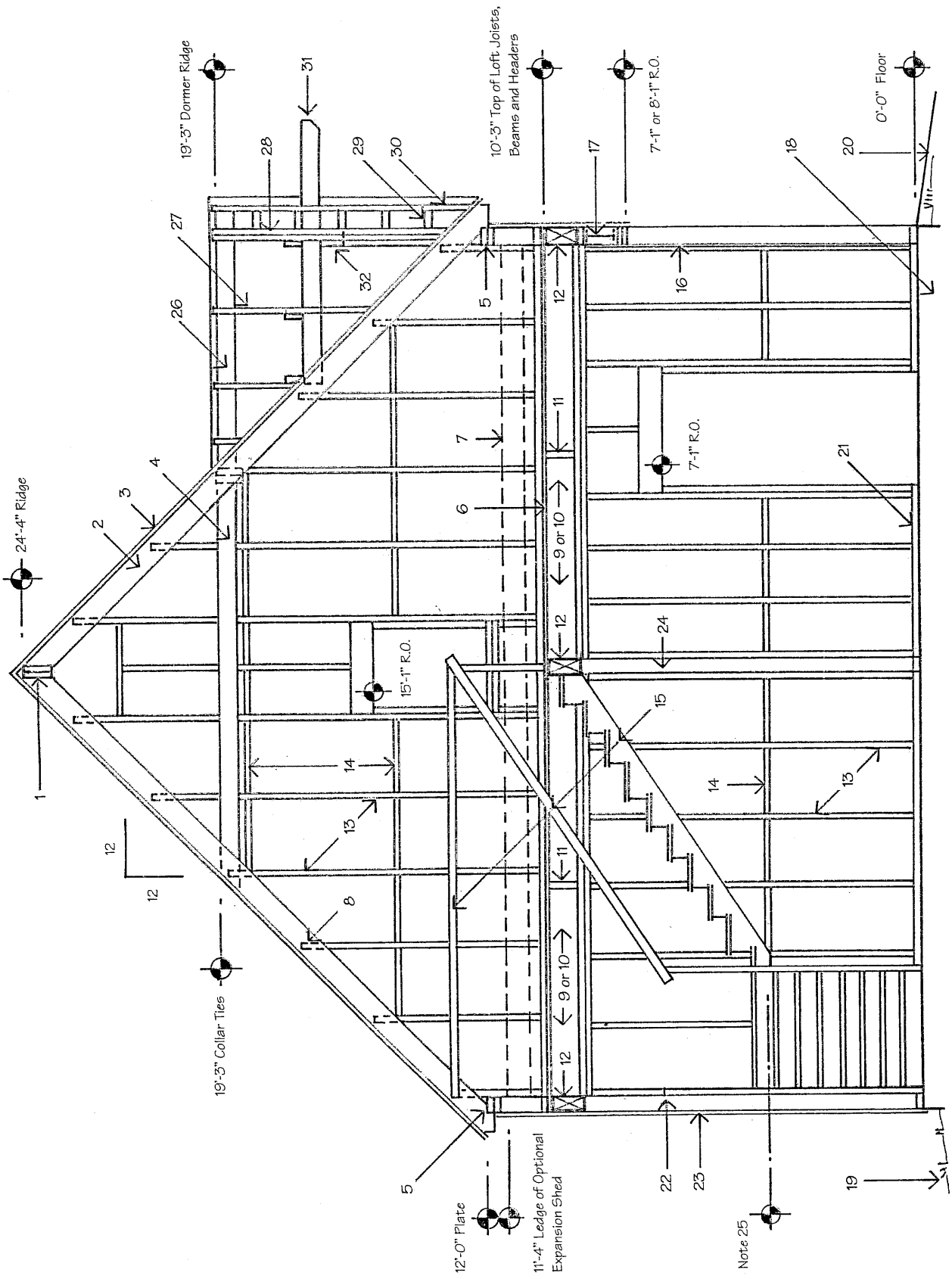


Refer to page E2 for Notes

Mirror this drawing for an opposite orientation

MAIN BUILDING SIDE ELEVATION – E6

1/4" = 1'-0"



Refer to page S2 for Notes

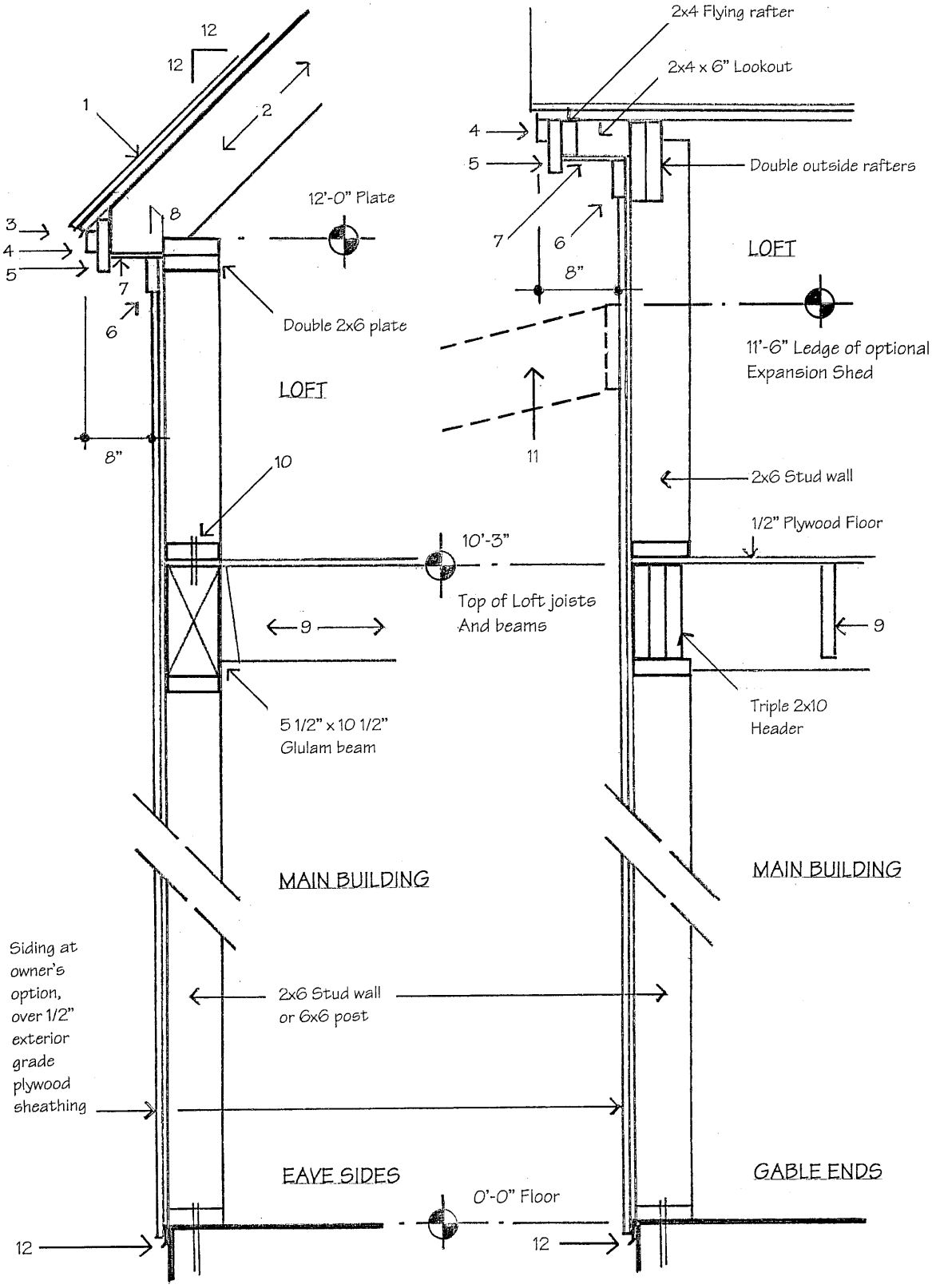
Mirror this drawing for an opposite orientation of the stairs and walk door

MAIN BUILDING FRAMING SECTION – S1

1/4" = 1'-0"

MAIN BUILDING FRAMING SECTION NOTES
SEE DRAWING S1

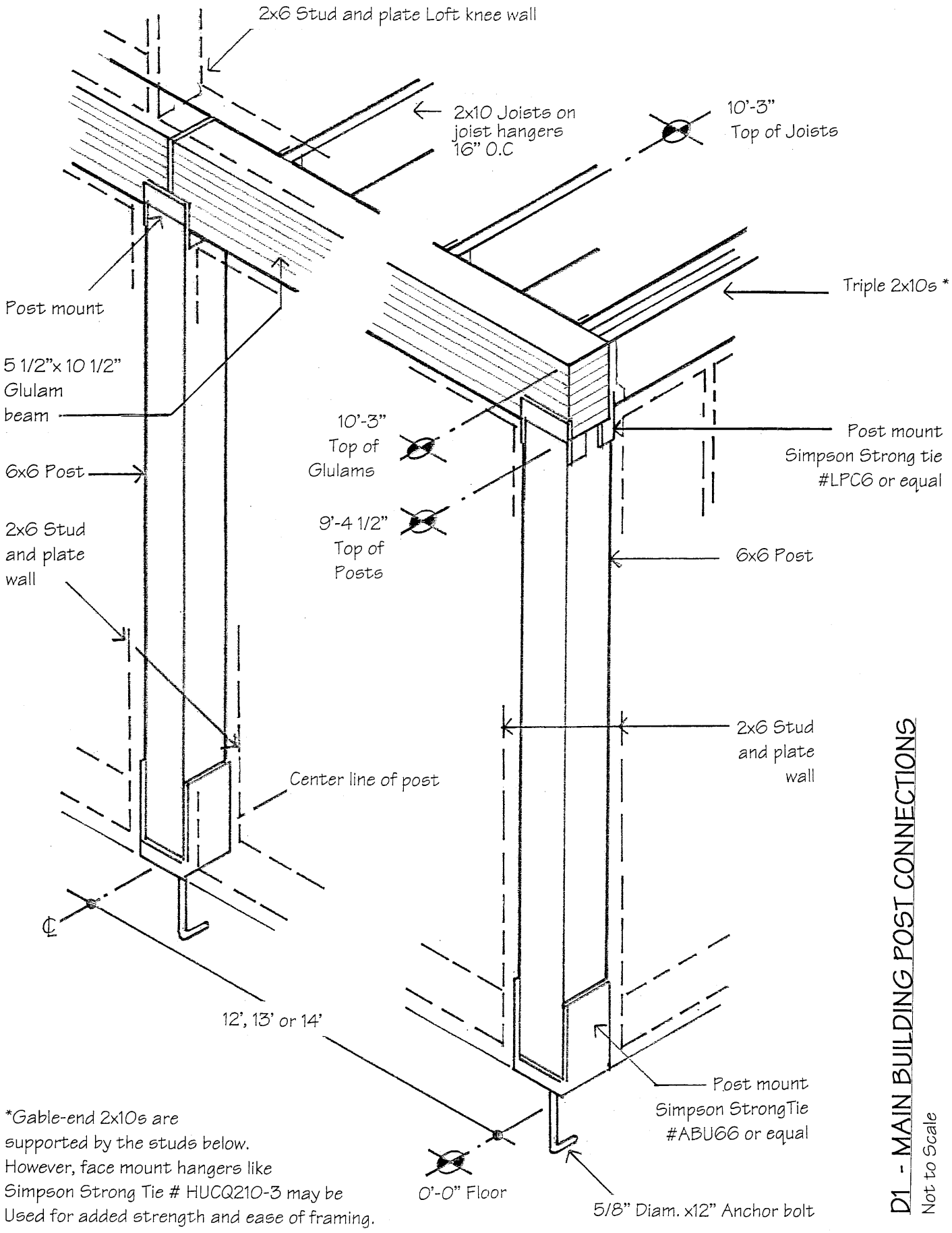
1. Double 2x8 ridge
2. 2x8 Roof rafters at 16" O.C.
3. Roofing, at owner's option, over 5/8" exterior grade plywood deck
4. 2x6 Collar ties at every other rafter pair
5. Double 2x6 plate
6. 1/2" Plywood loft floor deck
7. Line of 2x10 ledge of optional Expansion Shed – see Expansion Shed drawings
8. Notch studs into outside rafters
9. Triple 2x10s across gable ends
10. 2x10 Loft floor joists, on joist hangers at 16" O.C.
11. 2x10 Staggered bridging at the center of joist spans
12. 5 1/2" x 10 1/2" Glulam beam
13. 2x6 studs at 24" O.C. on 2x6 sill plates
14. 2x6 Horizontal blocking at 4'-0" O.C.
15. Provide code-compliant staircase, handrail and Loft railing
    Prefab pull-down stairs may be substituted for this staircase. See Optional Floor Plan P3
16. Nail full-height, 1/2" plywood panels to all studs, posts and braces at corners and between vehicle doors. See Plans P1 and P2 for locations.
17. Optional transom window
18. See Drawings FD1, FD2 and FD3 for concrete details
19. Slope grade away from building on all sides.
20. Concrete apron or slope drive up to floor level
21. Pressure treated 2x6 plate
22. 6x6 Posts on anchored post mounts and 2x6 stud wall
23. Siding, at owner's option, over 1/2" exterior grade plywood
24. 6x6 Post on anchored post mount
25. Underside of the stair platform should be a minimum of 4'-0" above the floor to allow space for parking the front of cars and trucks below the gable-side stairs
26. 2x8 Dormer ridge
27. 2x10 Dormer rafters at 24" O.C.
28. Double outside rafters
29. 6" Long 2x4 lookouts at 24" O.C.
30. 2x4 Flying rafters
31. Optional 4x6 Lift post – Mount on triple 2x8 header at outside wall and secure tightly to the underside of three collar ties with steel strapping or angle braces
32. Triple 2x8 header



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 Expansion Shed Drawings
12. Continuous termite shield below anchored P.T. plate and post mounts

S3 - MAIN BUILDING WALL SECTIONS

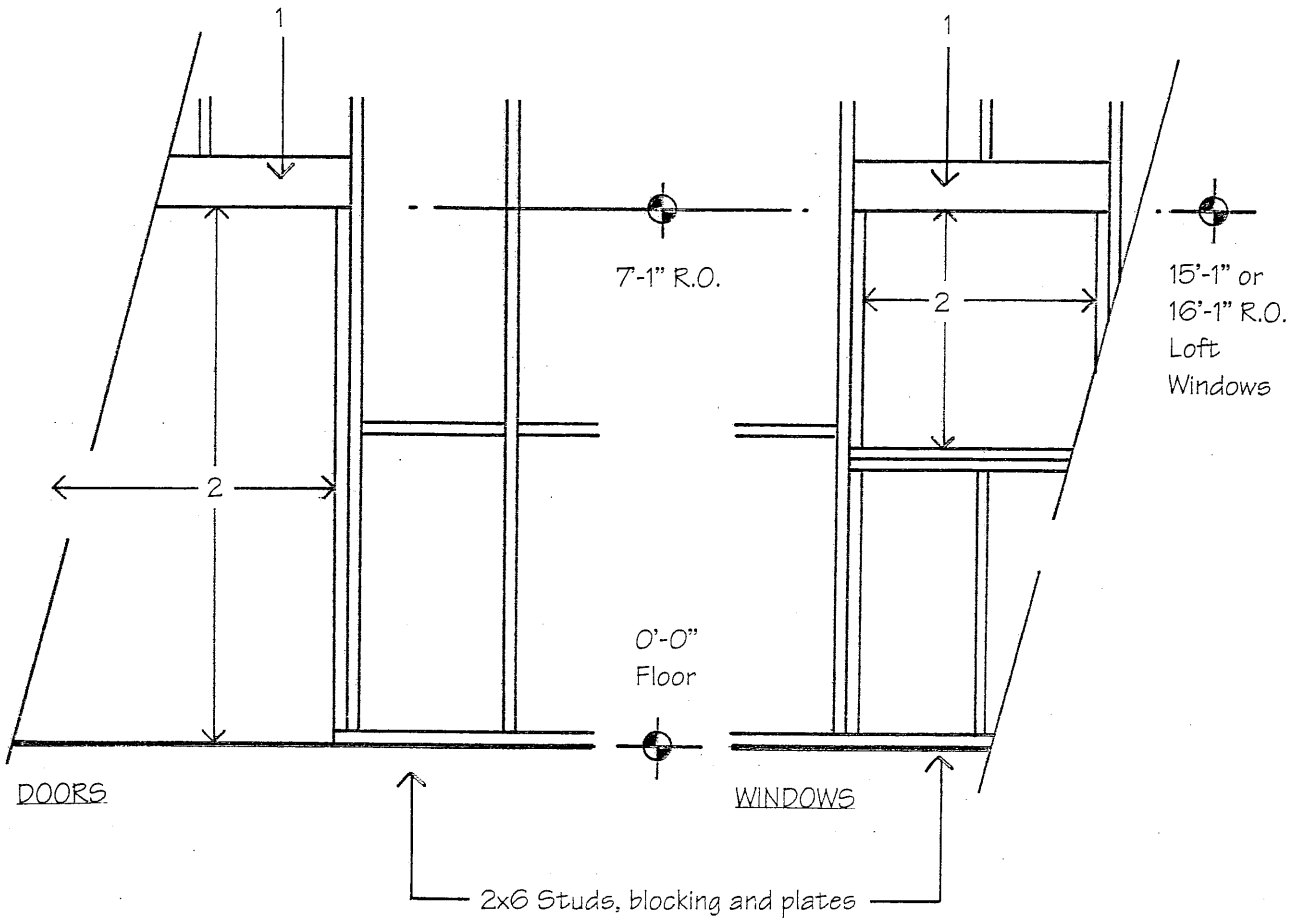
3/4" = 1'-0"



*Gable-end 2x10s are supported by the studs below. However, face mount hangers like Simpson Strong Tie # HUCQ210-3 may be Used for added strength and ease of framing.

D1 - MAIN BUILDING POST CONNECTIONS

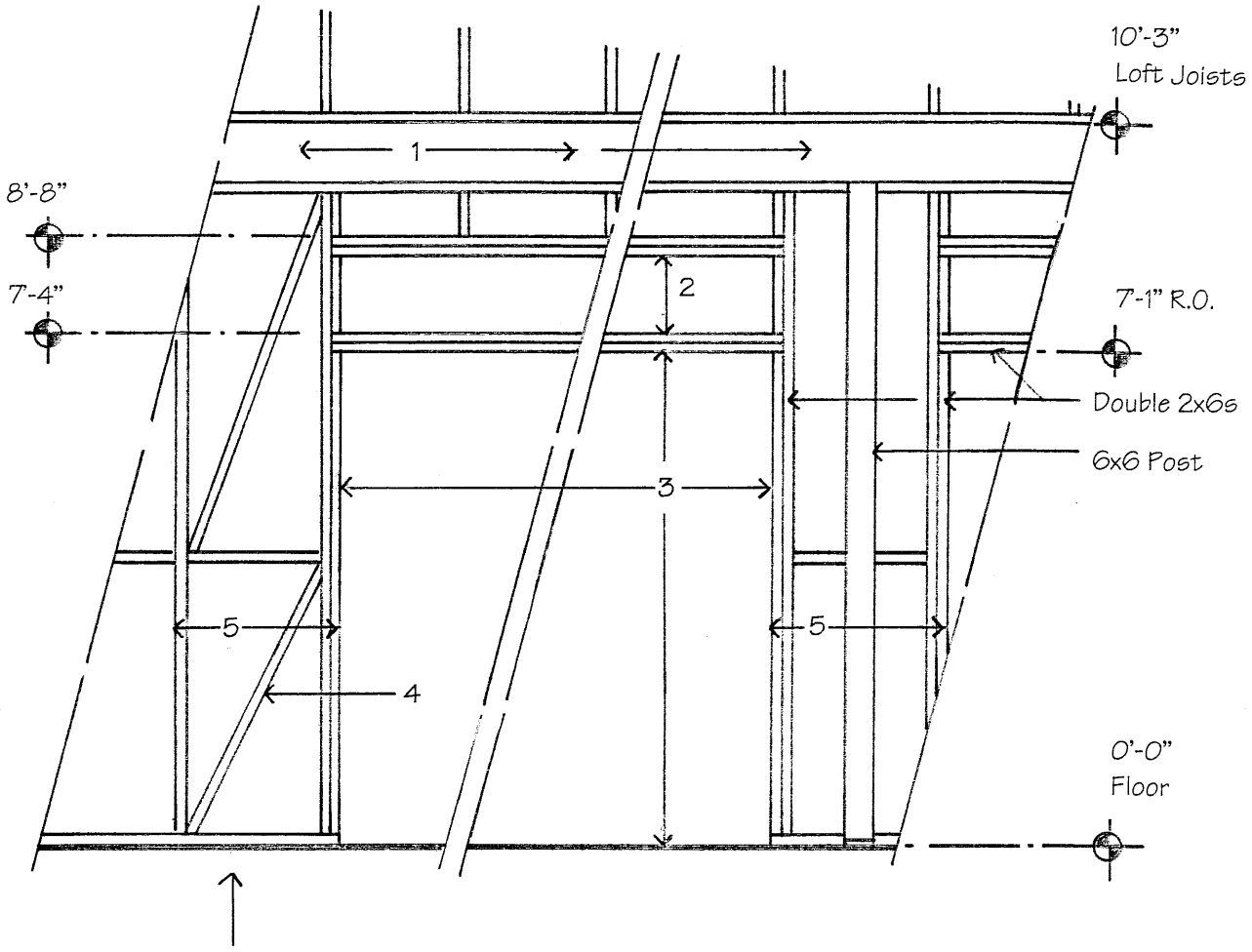
Not to Scale



D2 - MAIN BUILDING WALK DOOR & WINDOW FRAMING

Not to Scale

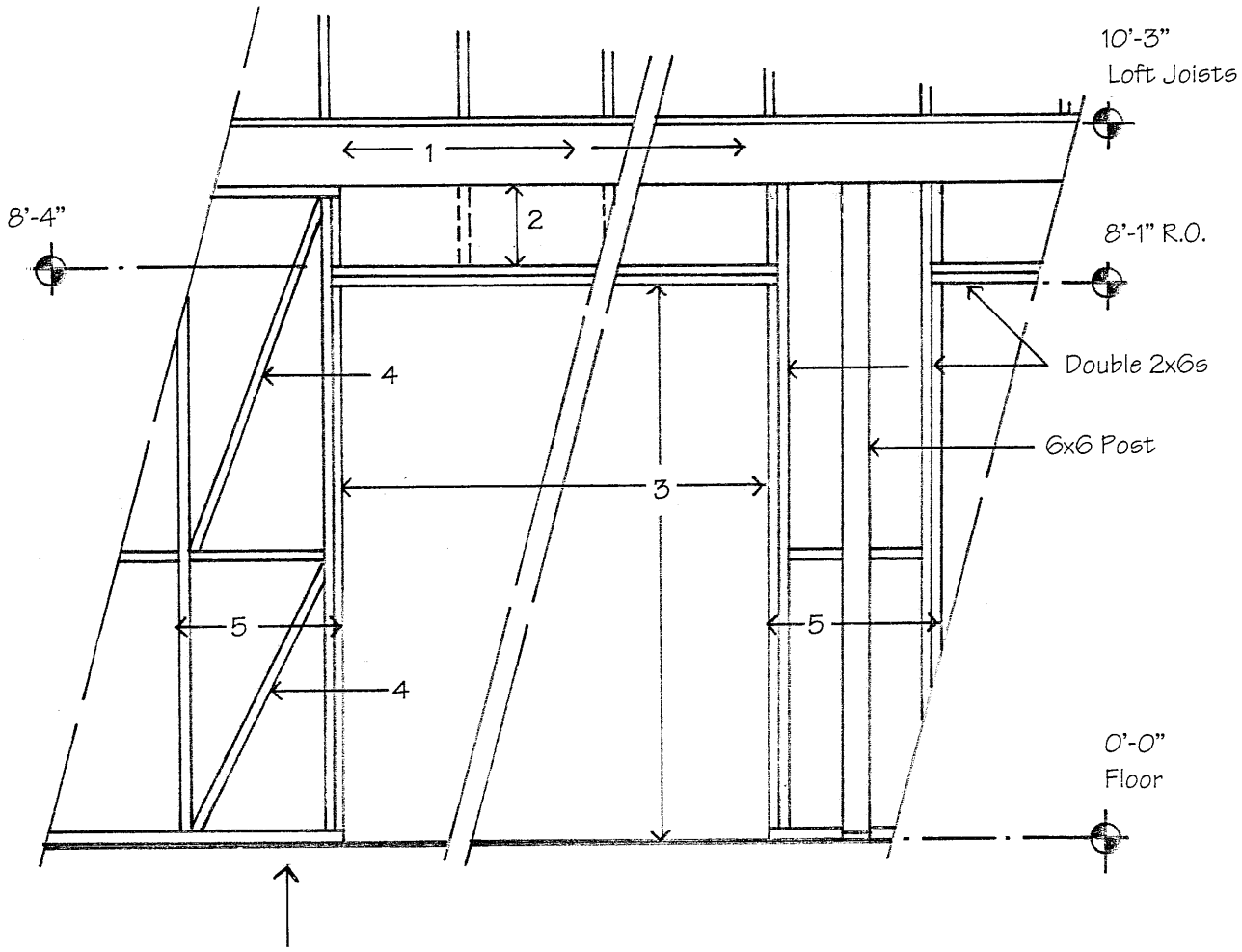
1. Triple 2x8 header.
2. Adjust dimensions to match door and window manufacturer's recommended R.O.



1. 5 1/2" x 10 1/2" Glulam beam.
2. 13" R.O. for custom transom window.
3. Adjust dimensions to match door manufacturer's recommended R.O.
4. Provide 2x6 angled braces between studs adjacent to vehicle doors and at all corners of the Main Building
5. Nail full-height, 1/2" plywood panels to the interior surface of all studs, braces, blocking and posts adjacent to the vehicle doors and at all Main Building corners. See the floor plans for locations.

D3 - MAIN BUILDING VEHICLE DOOR FRAMING FOR 7' HIGH DOORS

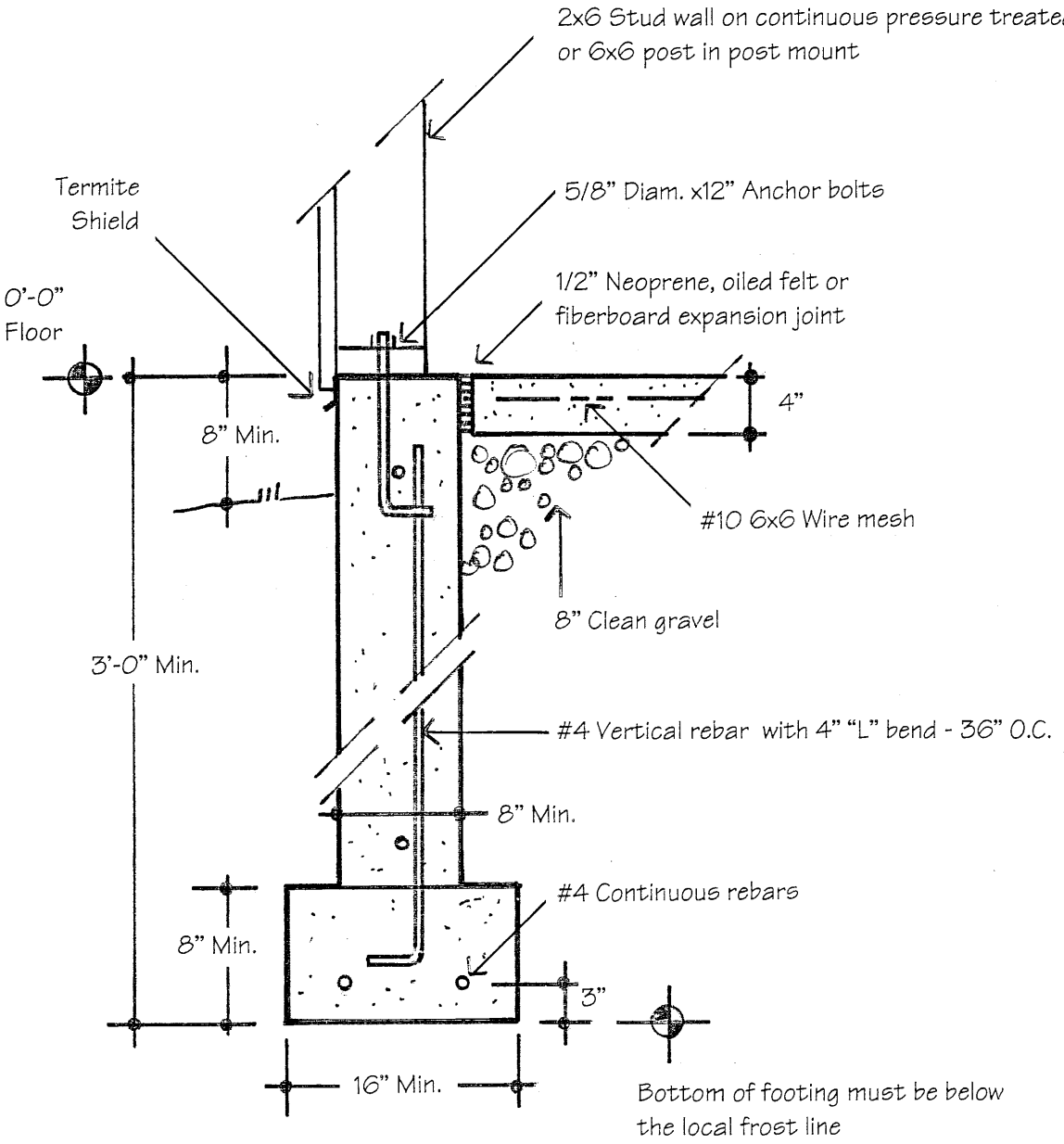
Not to Scale



1. 5 1/2" x 10 1/2" Glulam beam
2. 12 1/2" R.O. for optional custom transom window. Block this space with 2x6 studs at 16" O.C. if transom window is not used.
3. Adjust dimensions to match door manufacturer's recommended R.O.
4. Provide 2x6 angled braces between studs adjacent to vehicle doors and at all corners of the Main Building
5. Nail full-height, 1/2" plywood panels to the interior surface of all studs, braces, blocking and posts adjacent to the vehicle doors and at all Main Building corners. See the floor plans for locations.

D4 - MAIN BUILDING VEHICLE DOOR FRAMING FOR 8' HIGH DOORS

Not to Scale



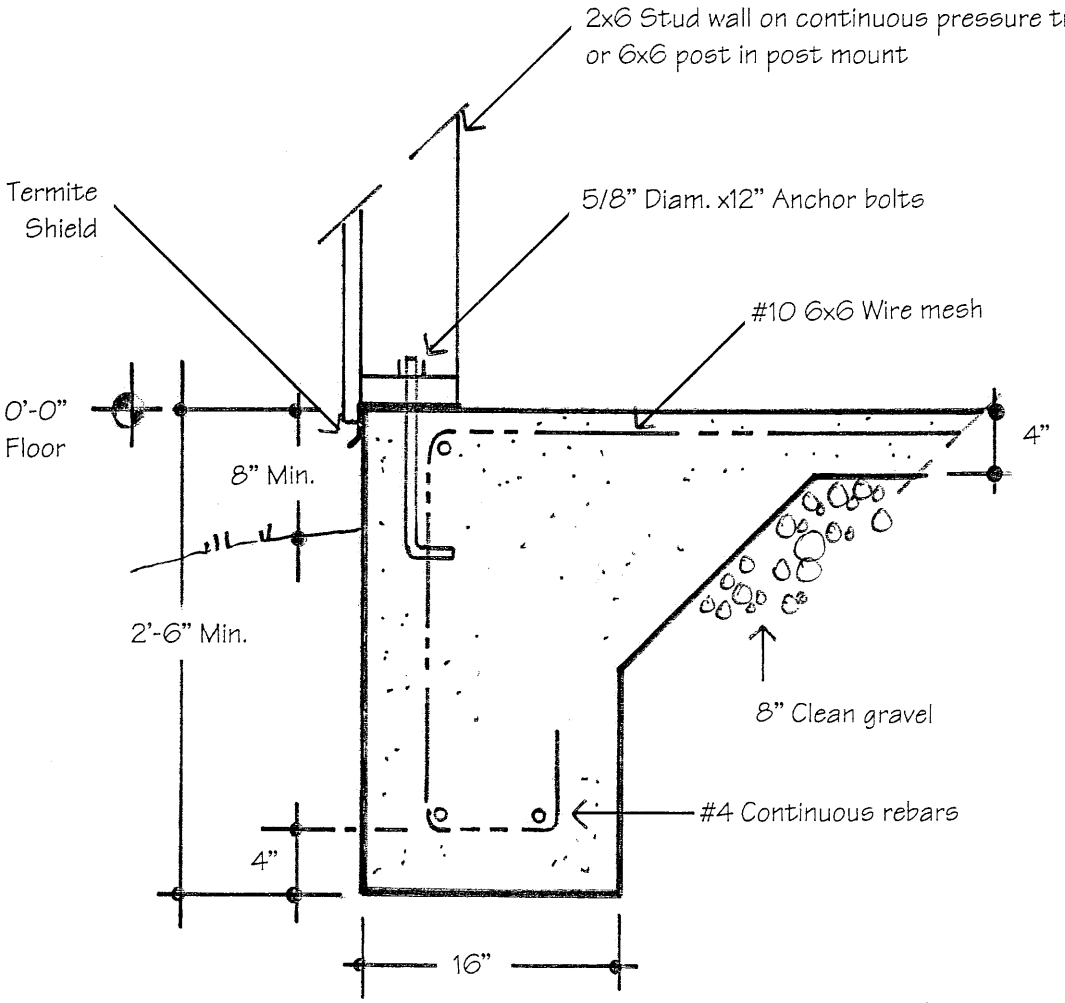
Provide anchor bolts at each post mount, within 12" of all sill ends and corners, and a maximum of 6' O.C. Each section of sill plate must have a minimum of two anchor bolts.

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"

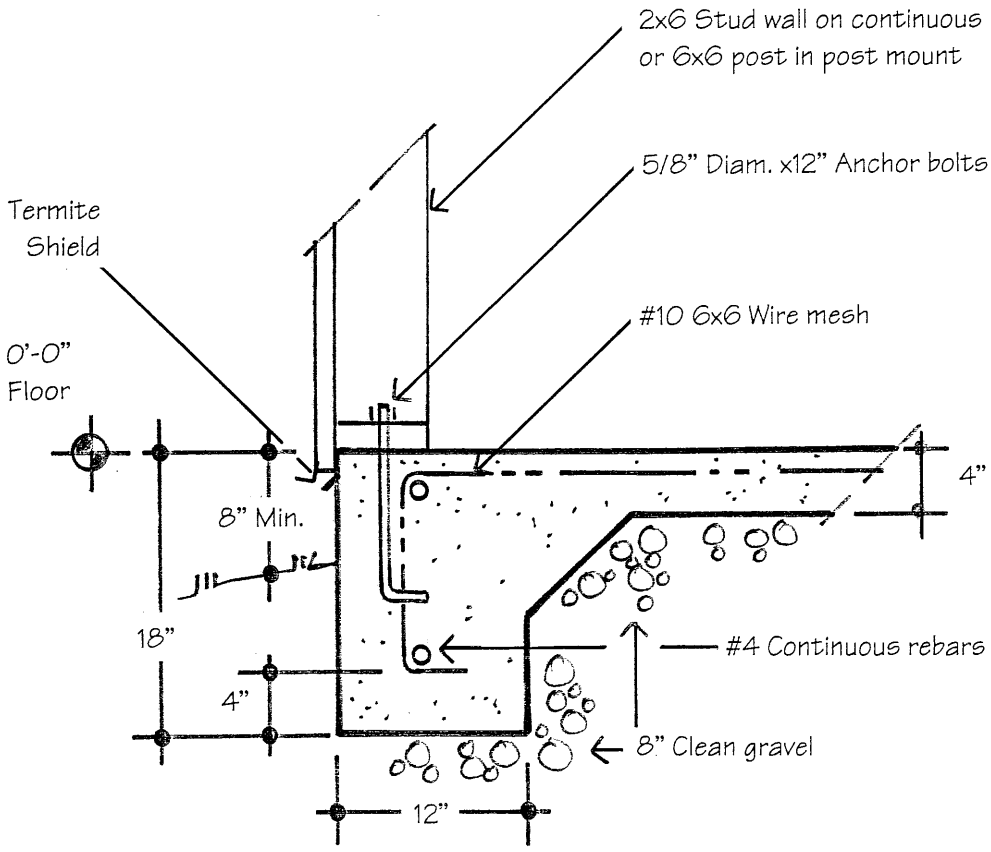
Use this foundation for the eave-side walls of the Main Garage and Expansion Sheds in locations where the frost line is more than 20" below grade and on sloping sites.



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.

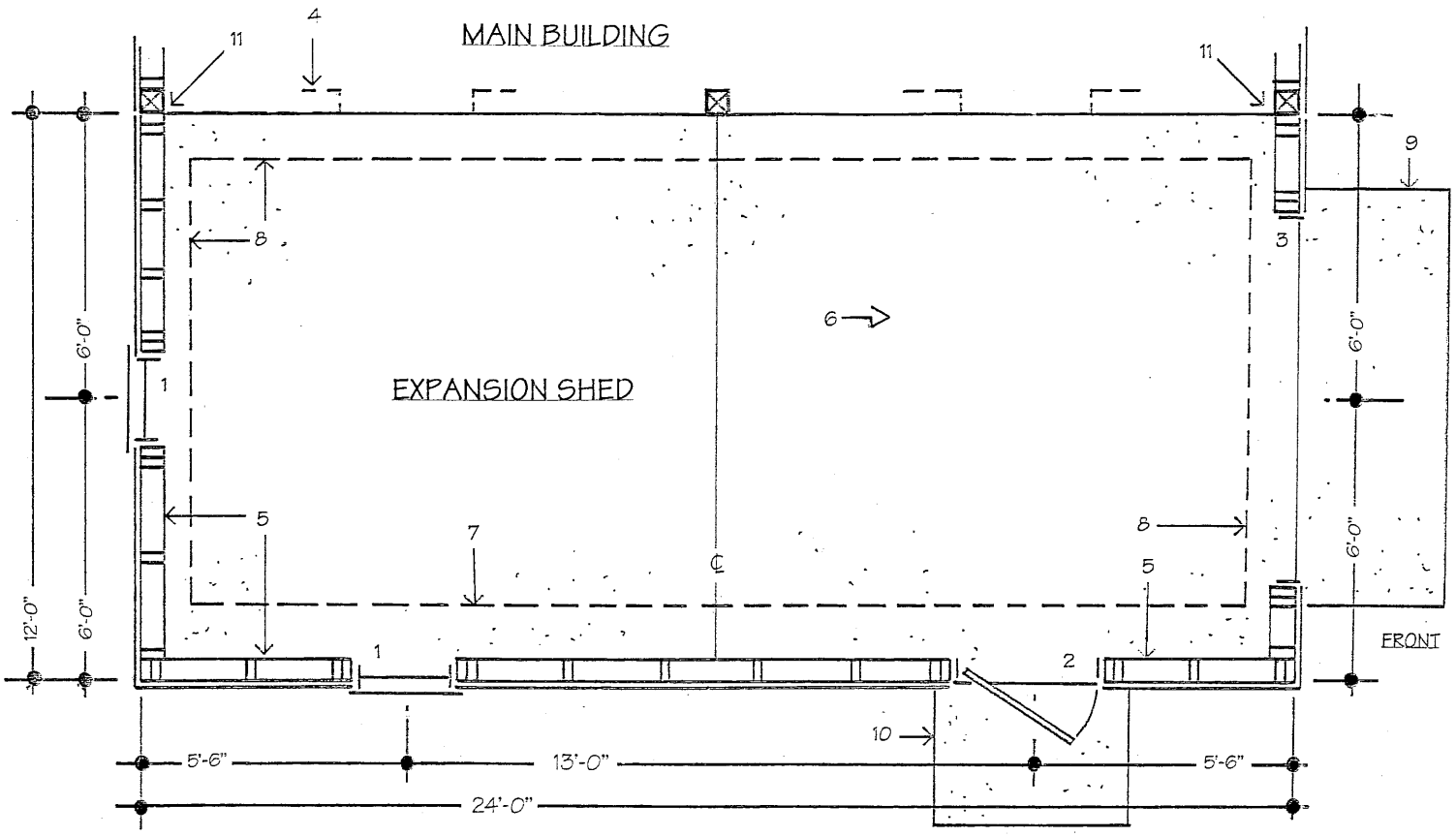


Provide anchor bolts at each post mount, within 12" of all sill ends and corners, and a maximum of 6' O.C. Each section of sill plate must have a minimum of two anchor bolts.

FD3 –THICKENED SLAB SECTION 1"= 1'-0"

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

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

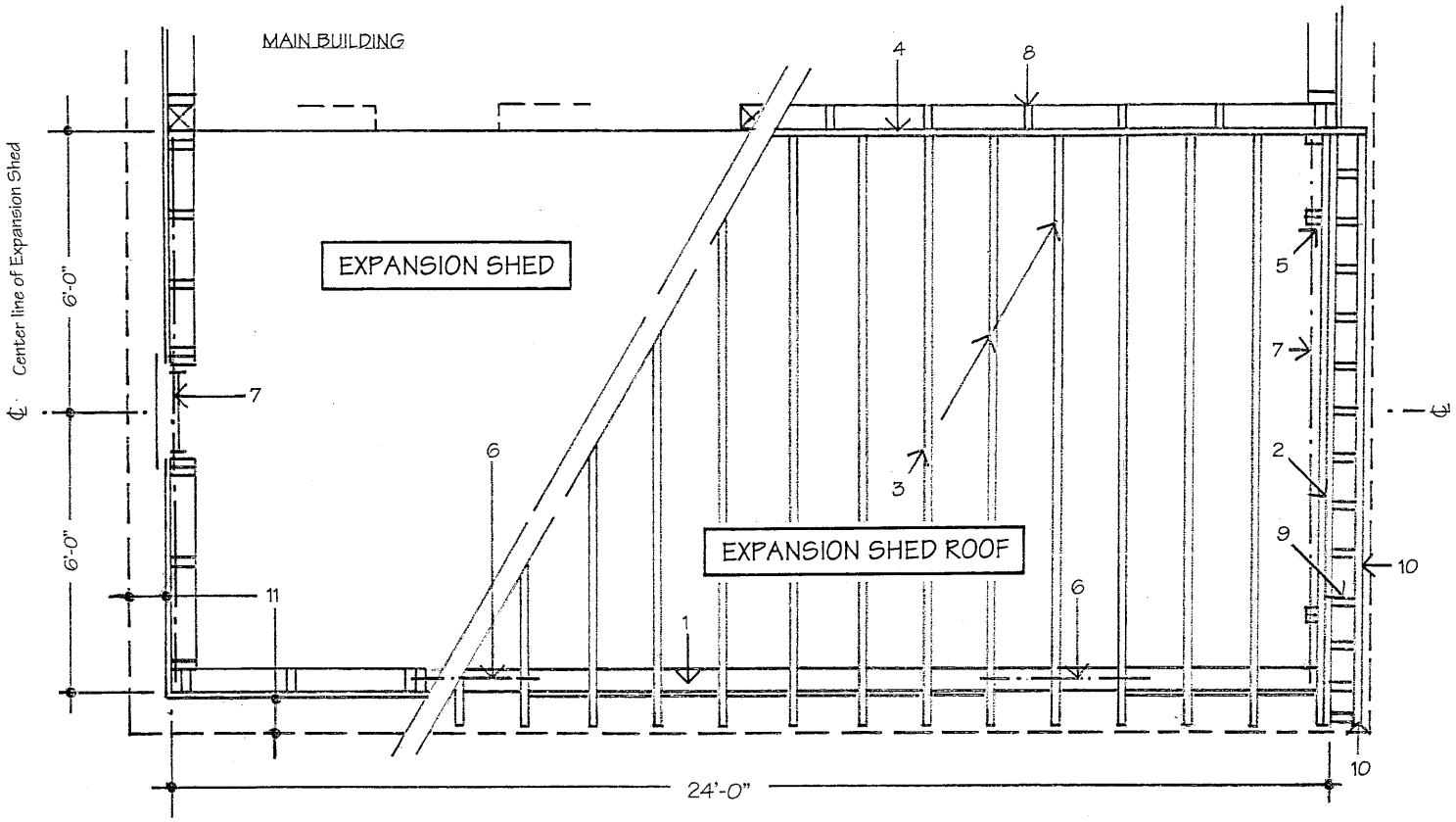


☒ - 6x6 Post ℄ - Center line of building and expansion joint in floor slab

1. Windows should be 2'-0"high by 3'-0" wide fixed, awning, casement or double hung
2. 3'-0" wide by 7'-0 high walk door
3. Vehicle door - 8'-0" wide by 7'-0" overhead garage door, or two 4'-0" wide by 7'-0" high hinged doors
4. Stud walls, between posts, may be omitted for open access
5. 2x6 Stud wall
6. 4" reinforced concrete slab – Slope towards the vehicle 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 level of the floor
10. Min. 3'-0"x4'-0" Concrete stoop at the level of the floor
11. Bolt double 2x6 studs to the Main Building posts with 1/2 " Diam. x 7" lag bolts at 24" O.C.

ES1-P1 - EXPANSION SHED
FLOOR PLAN
1/4" = 1'-0"

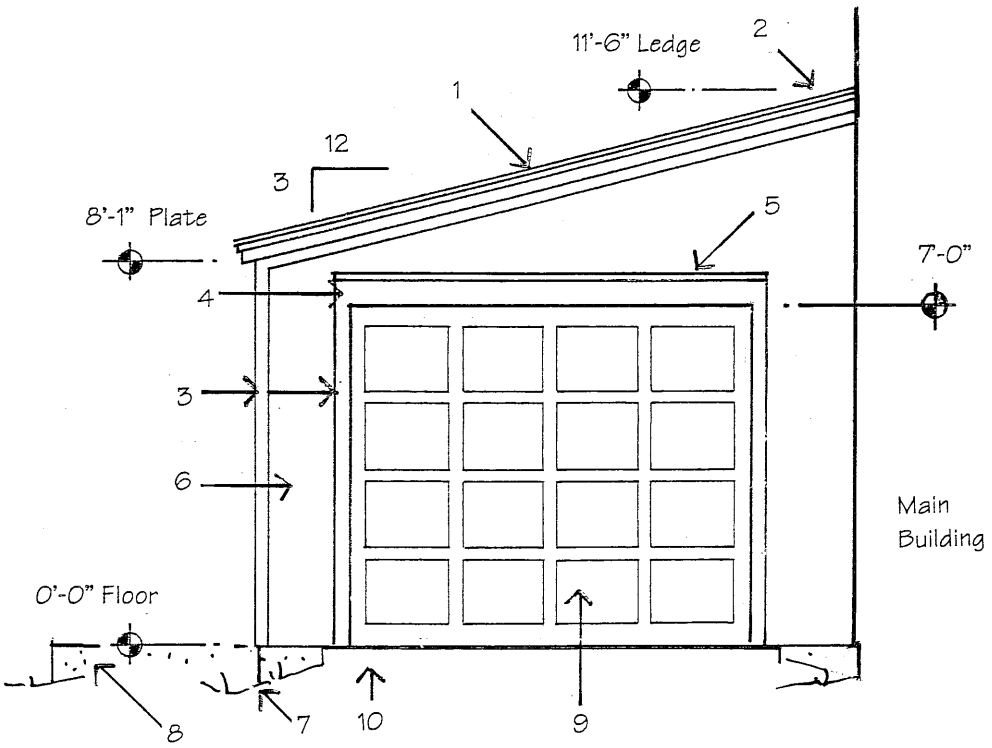
Mirror this plan for an Expansion Shed on the opposite side of the Main Building



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 Building loft stud wall 9. 6" long, 2x4 Lookouts at 24" O.C.
10. 2x4 Flying rafters 11. 8" Roof overhang

ES1-P2 - EXPANSION SHED
ROOF FRAMING PLAN
1/4" = 1'-0"

Mirror this elevation for an Expansion Shed on the opposite side of the Main Building

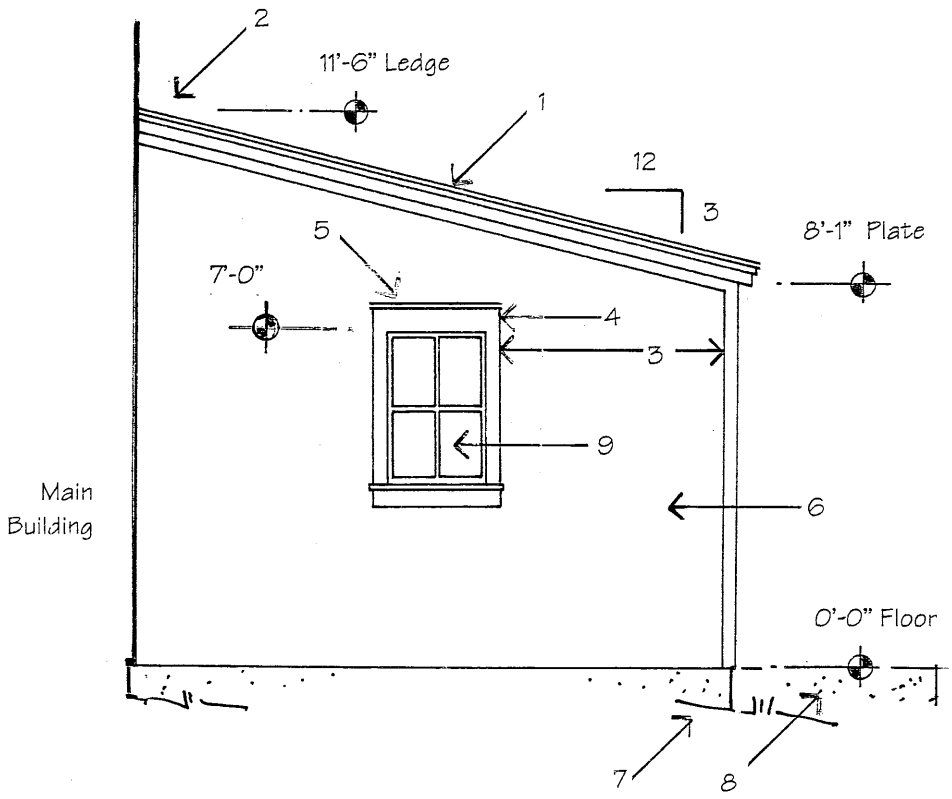


1. Roofing, at owner's option, over 5/8" exterior grade plywood deck
2. Flash shed roof into Main Building
3. 1x4 trim
4. 1x6 trim
5. Drip Cap
6. Siding, at owner's option, over 1/2" exterior grade plywood
7. Slope grade away from building on all sides
8. Concrete stoop
9. Vehicle door - 8'-0" wide by 7'-0" overhead garage door, or two 4'-0" wide by 7'-0" high hinged doors
10. Concrete apron

ES1-E1 - EXPANSION SHED FRONT ELEVATION

1/4" = 1'-0"

Mirror this elevation for an Expansion Shed on the opposite side of the Main Building



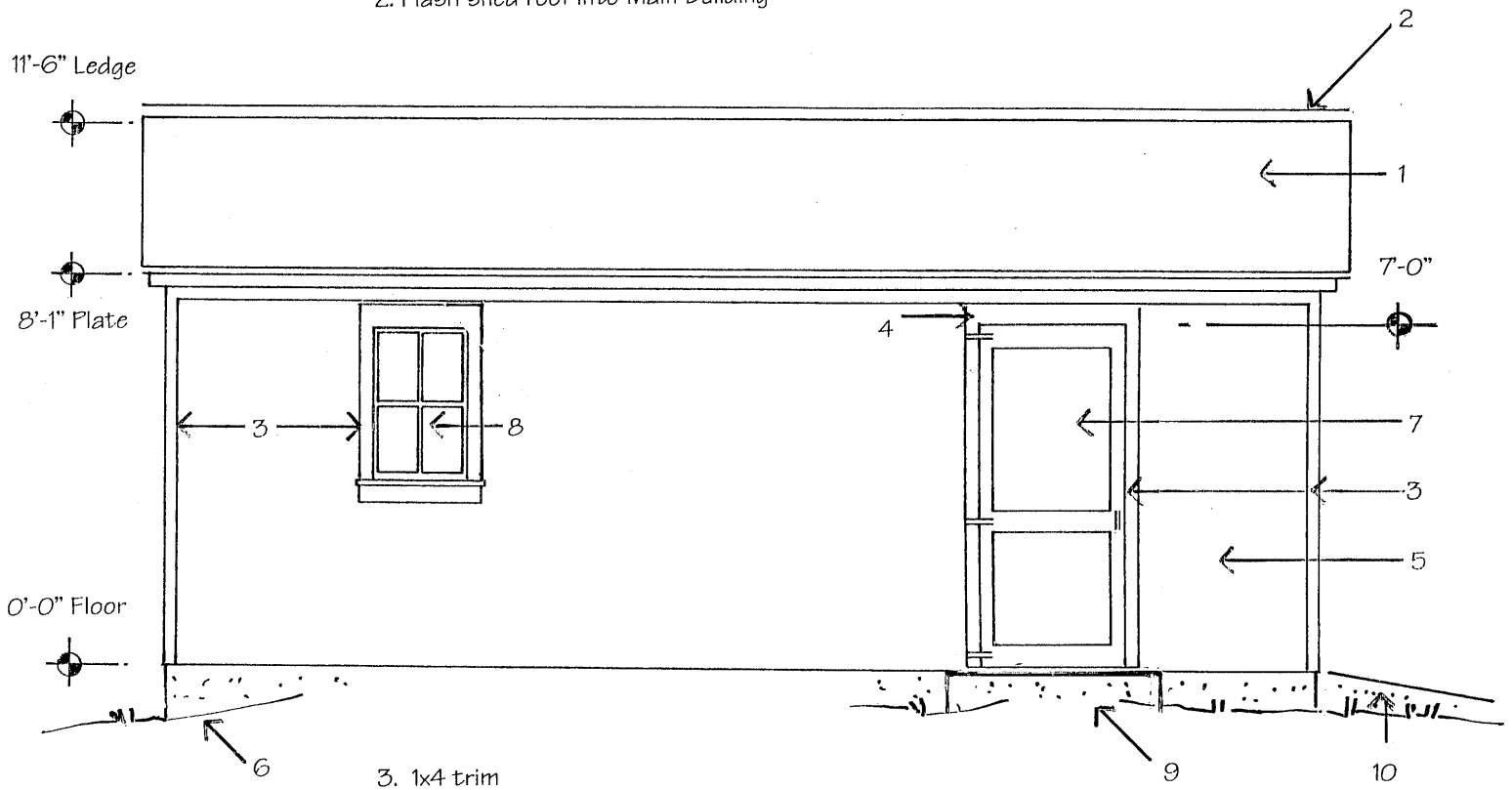
1. Roofing, at owner's option, over 5/8" exterior grade plywood deck
2. Flash shed roof into Main Building
3. 1x4 trim
4. 1x6 trim
5. Drip cap
6. Siding, at owner's option, over 1/2" exterior grade plywood
7. Slope grade away from building on all sides
8. Concrete stoop
9. 2'-0"x3'-0" Fixed, awning,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

ES1-E2 - EXPANSION SHED REAR ELEVATION

1/4" = 1'-0"

Use this drawing as the Front Elevation when a vehicle door is not required

1. Roofing, at owner's option, over 5/8" exterior grade plywood deck
2. Flash shed roof into Main Building



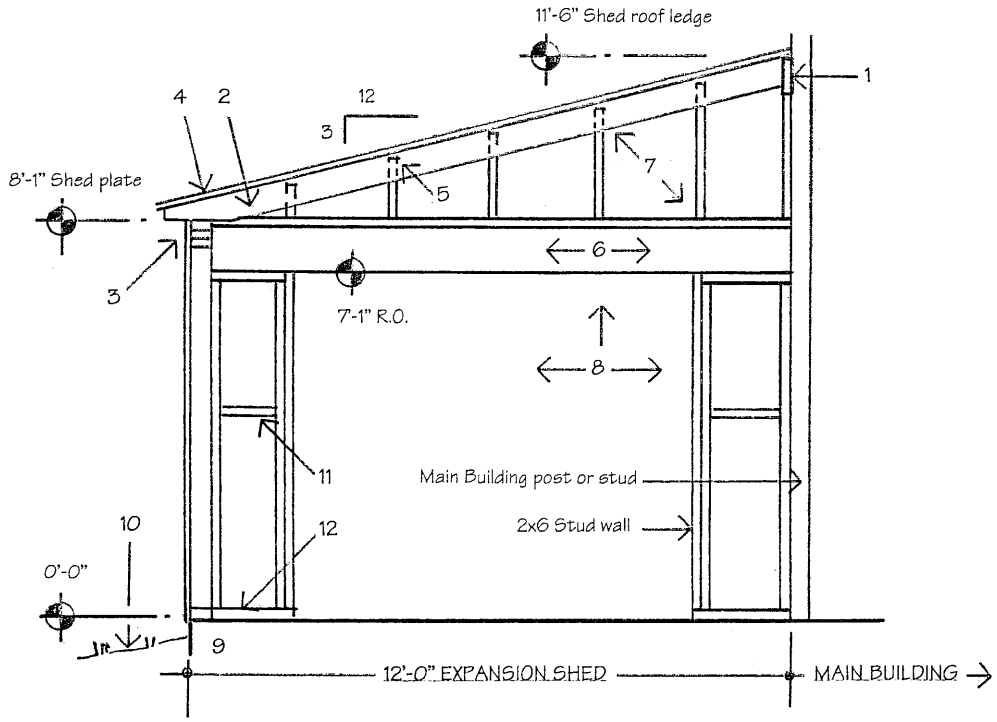
3. 1x4 trim
4. 1x6 trim
5. Siding, at owner's option, over 1/2" exterior grade plywood
6. Slope grade away from building on all sides
7. 3'-0"x7'-0" Door
8. 2'-0"x3'-0" Fixed, awning, casement or double hung window
9. Concrete stoop
10. Concrete apron
11. Slope grade away from building on all sides

Mirror this elevation for an Expansion Shed on the opposite side of the Main Building

ES1-E3 - EXPANSION SHED SIDE ELEVATION

1/4" = 1'-0"

Mirror this drawing for an Expansion Shed on the opposite side of the Main Building

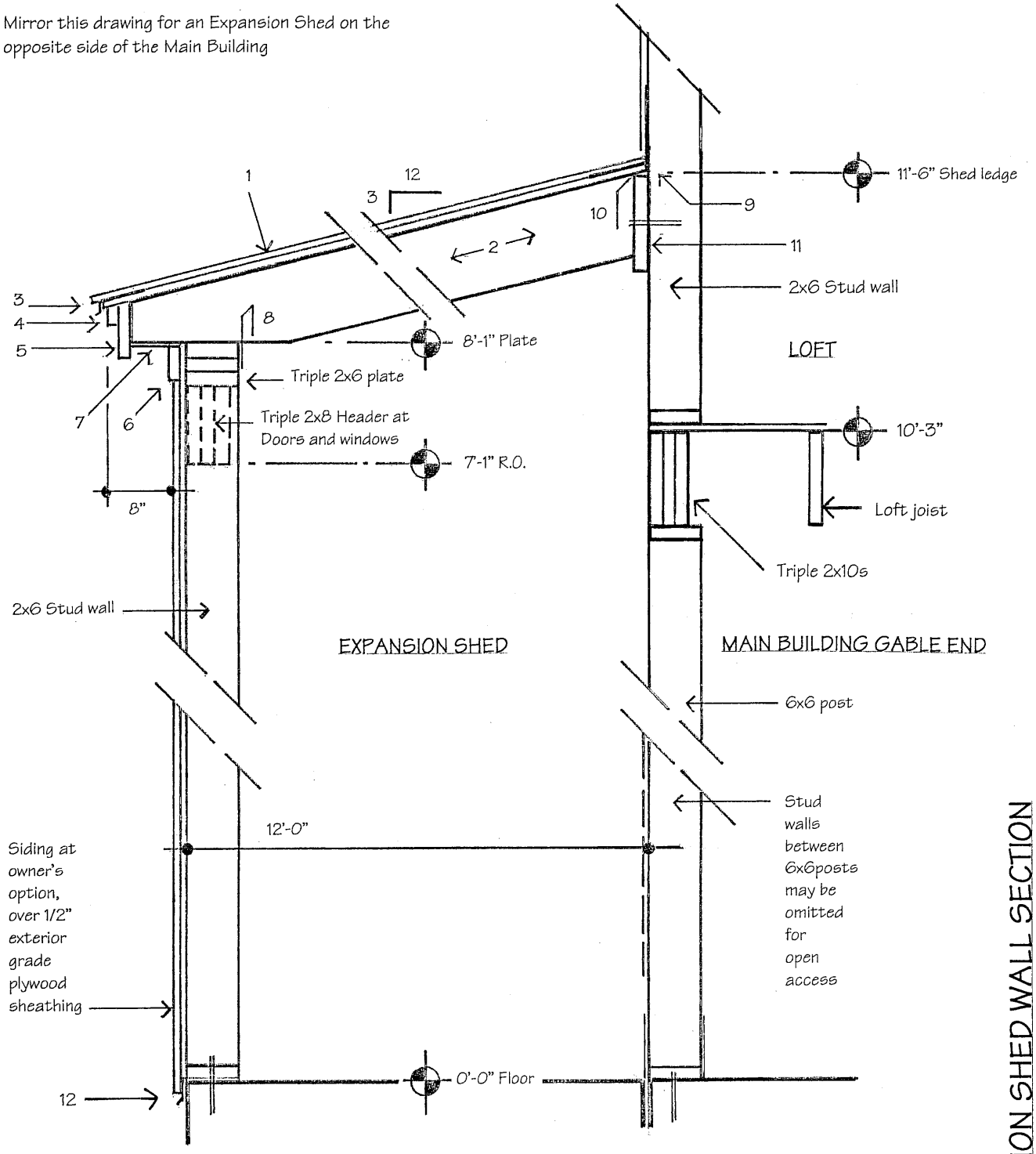


1. 2x10 Ledge 2. 2x8 Roof rafters – 16" O.C. 3. Triple 2x6 plate
4. Roofing, at owner's option, over 5/8" exterior plywood deck
5. Notch studs into outside rafters 6. Triple 2x10 Header across gable ends
7. 2x6 studs at 24" O.C", on 2x6 sill plates
8. Set dimensions to match door manufacturer's recommended 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

ES1-S1 - EXPANSION SHED BUILDING SECTION

1/4" = 1'-0"

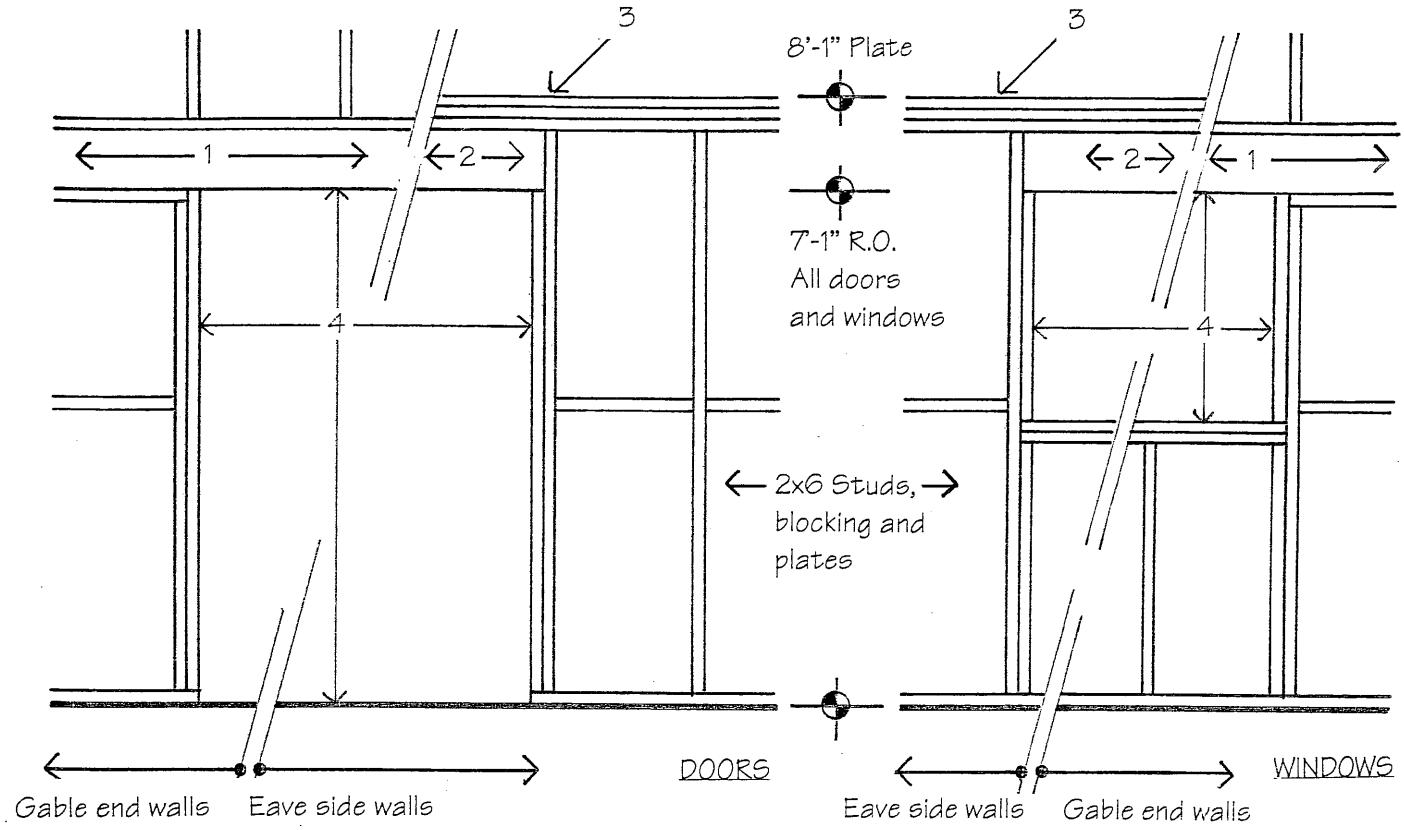
Mirror this drawing for an Expansion Shed on the opposite side of the Main Building



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
12. Continuous termite shield below anchored P.T. plate

ES1-S2 - EXPANSION SHED WALL SECTION

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.

ES1-D1 – EXPANSION SHED
DOOR & WINDOW FRAMING
Not to Scale