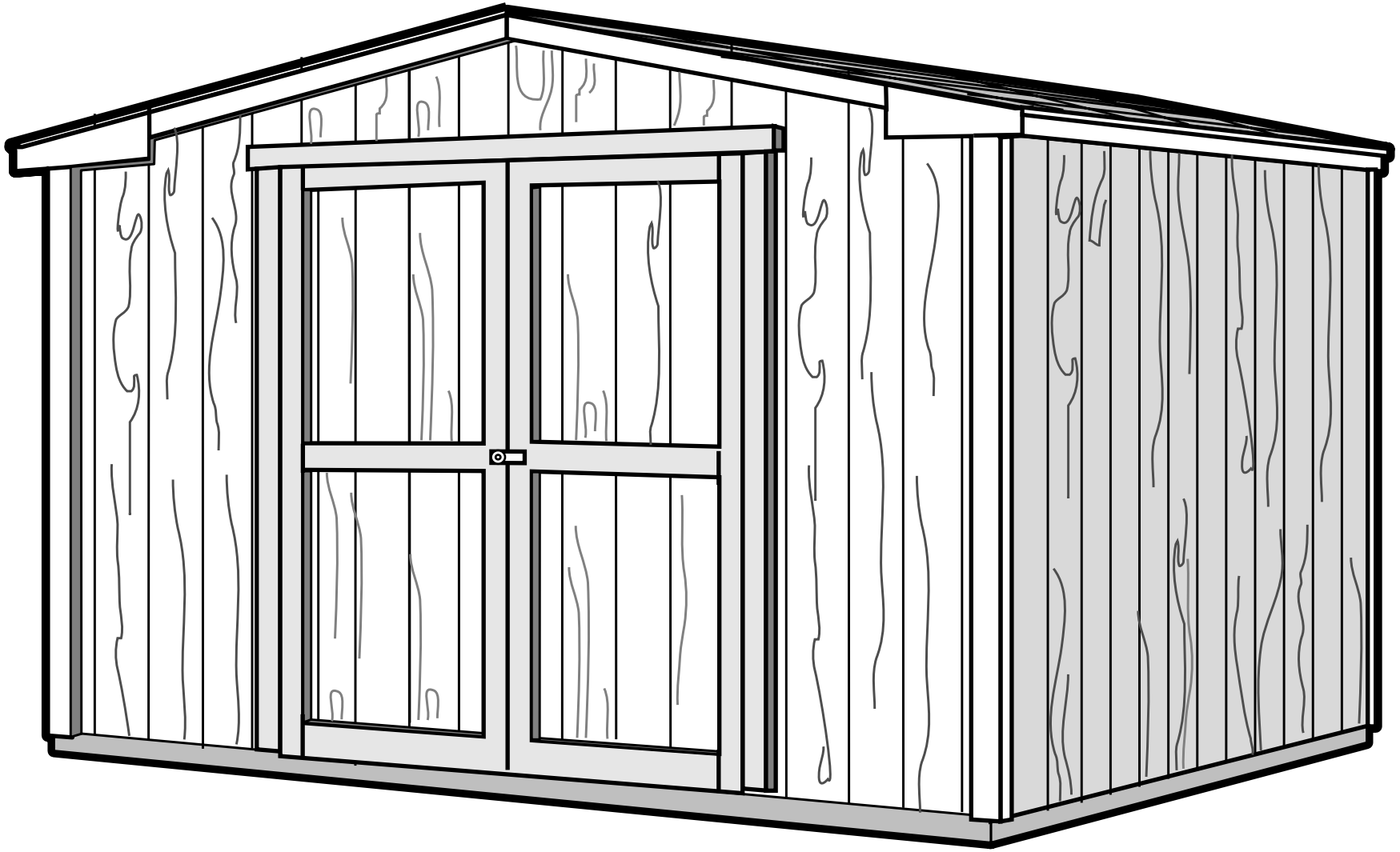
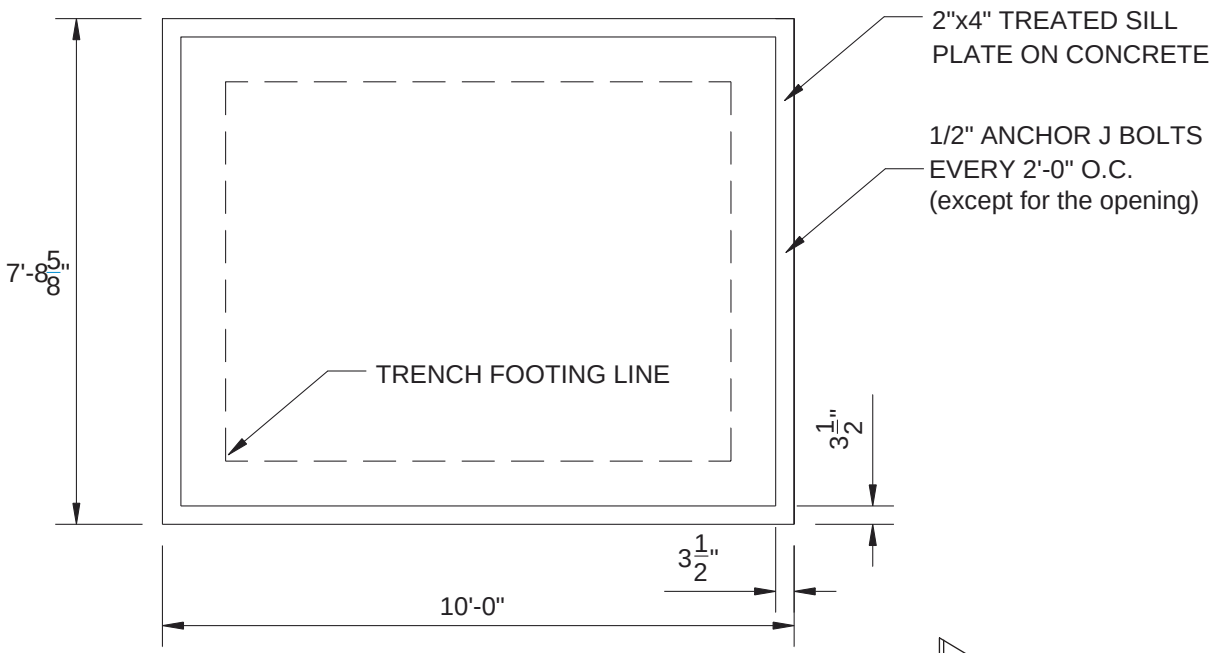
10' Marco Series Gable Building

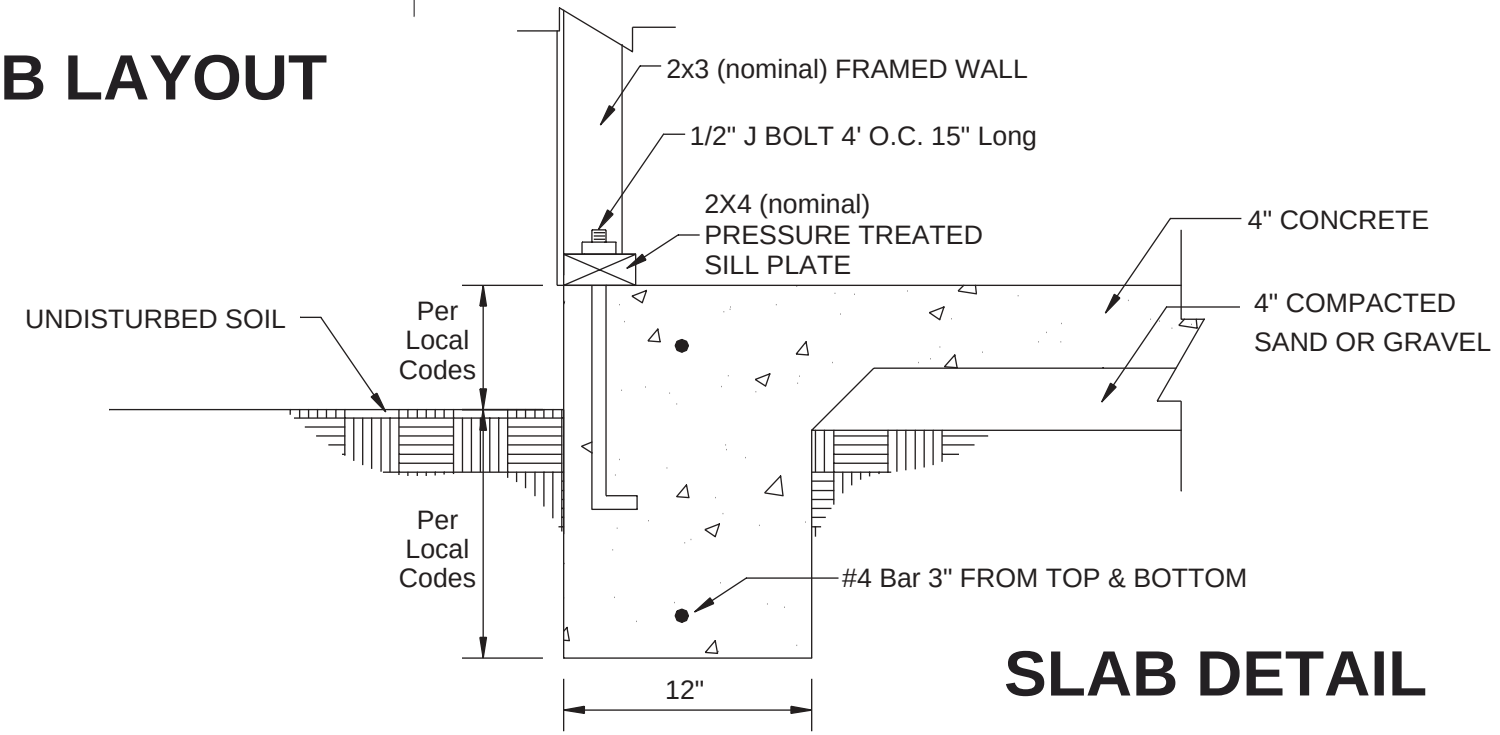
Engineering Building
Plans



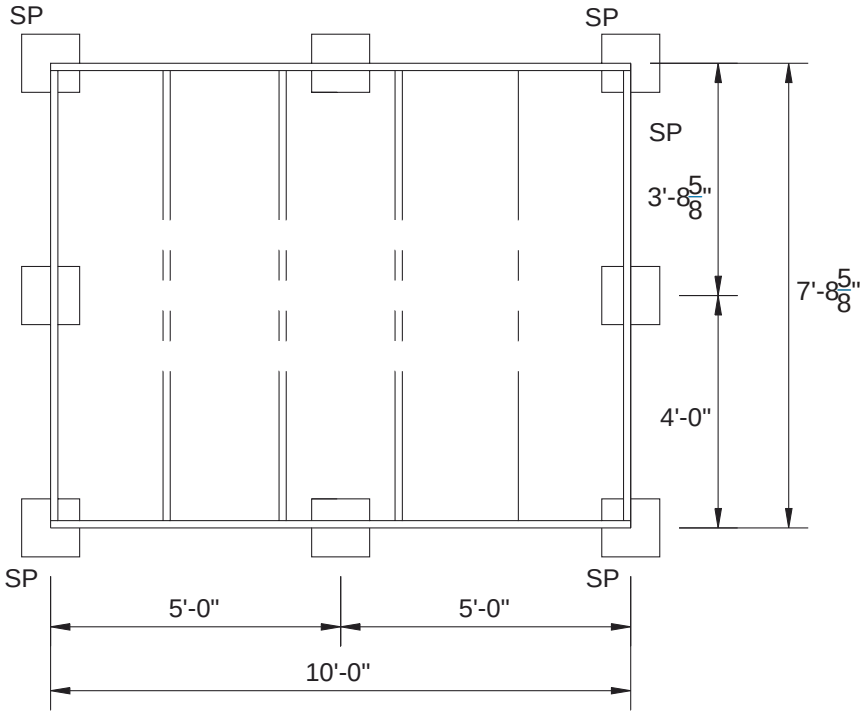
10-6-03



SLAB LAYOUT



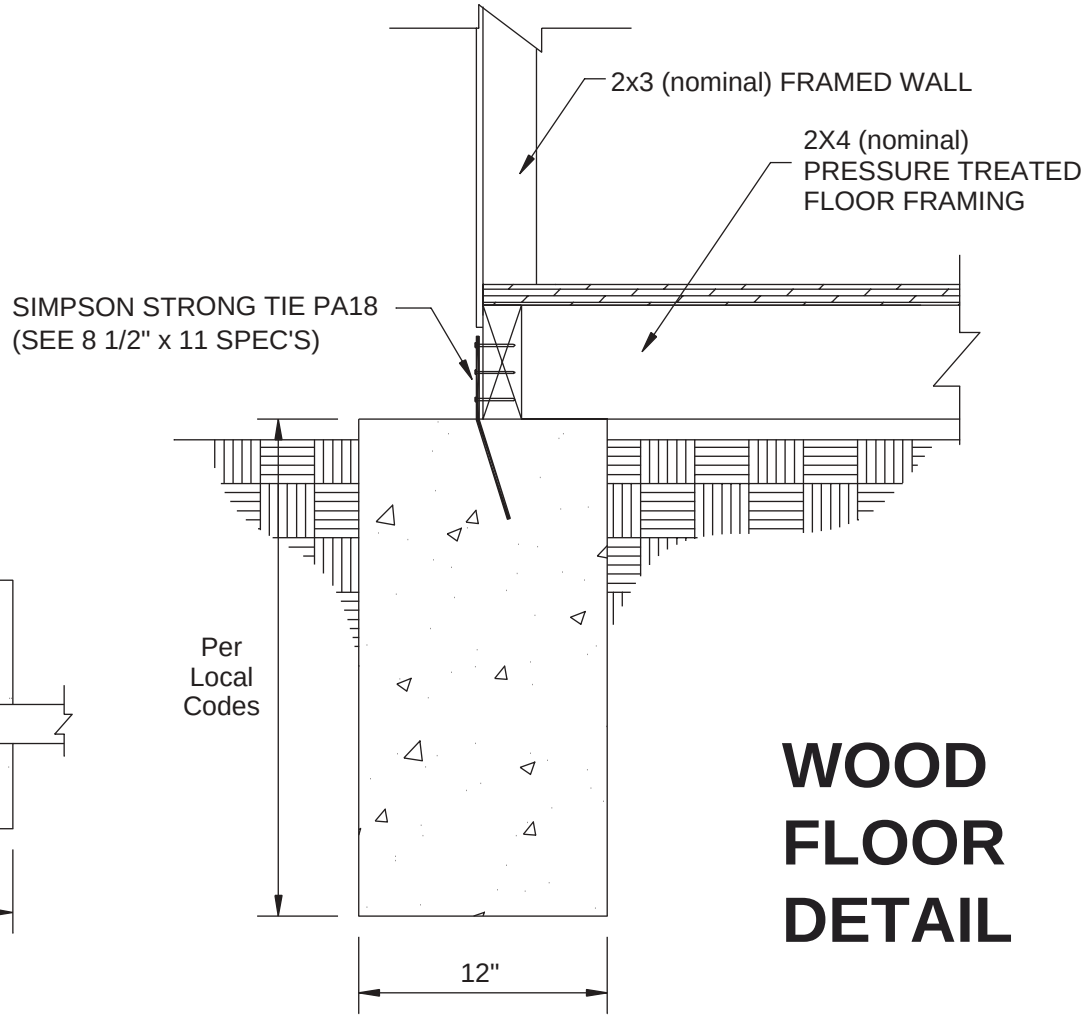
SLAB DETAIL

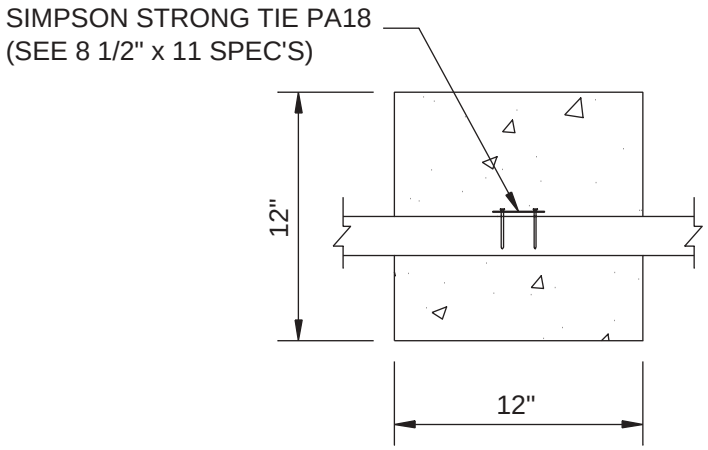


WOOD FLOOR LAYOUT

NOTE:

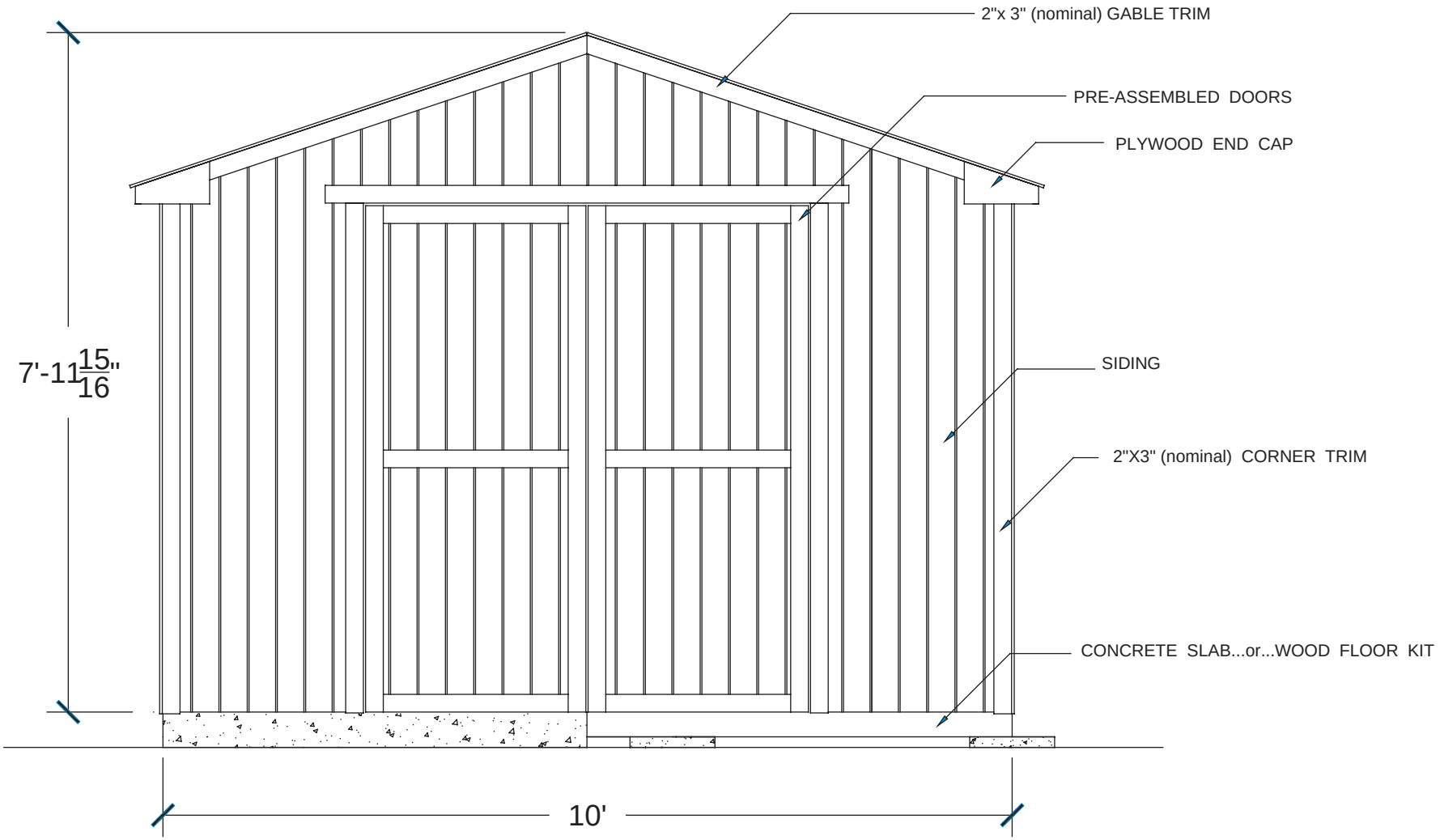
1.) ONLY THE PIERS INDICATED WITH SP ARE REQUIRED TO HAVE SIMPSON STRONG TIES



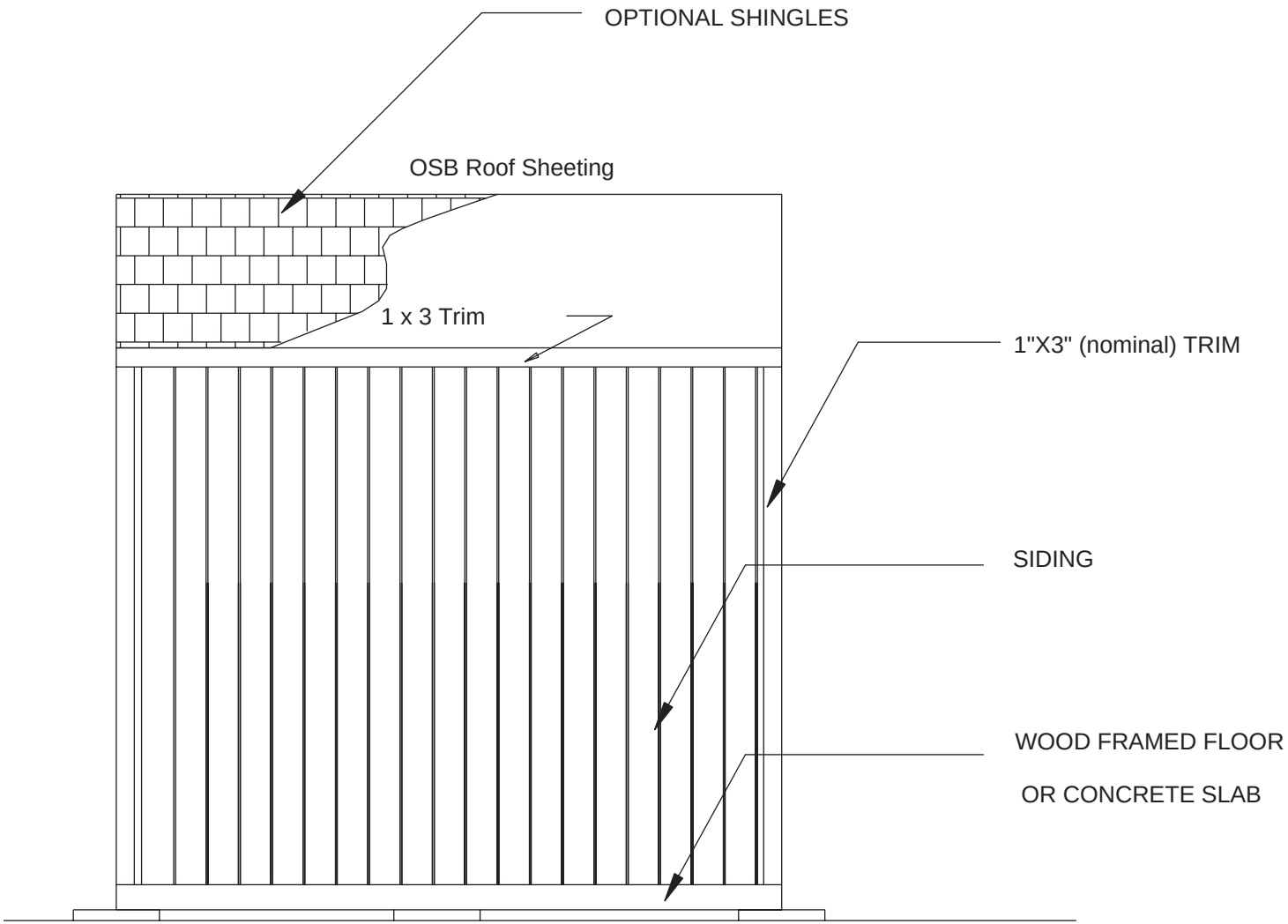


PLAN DETAIL

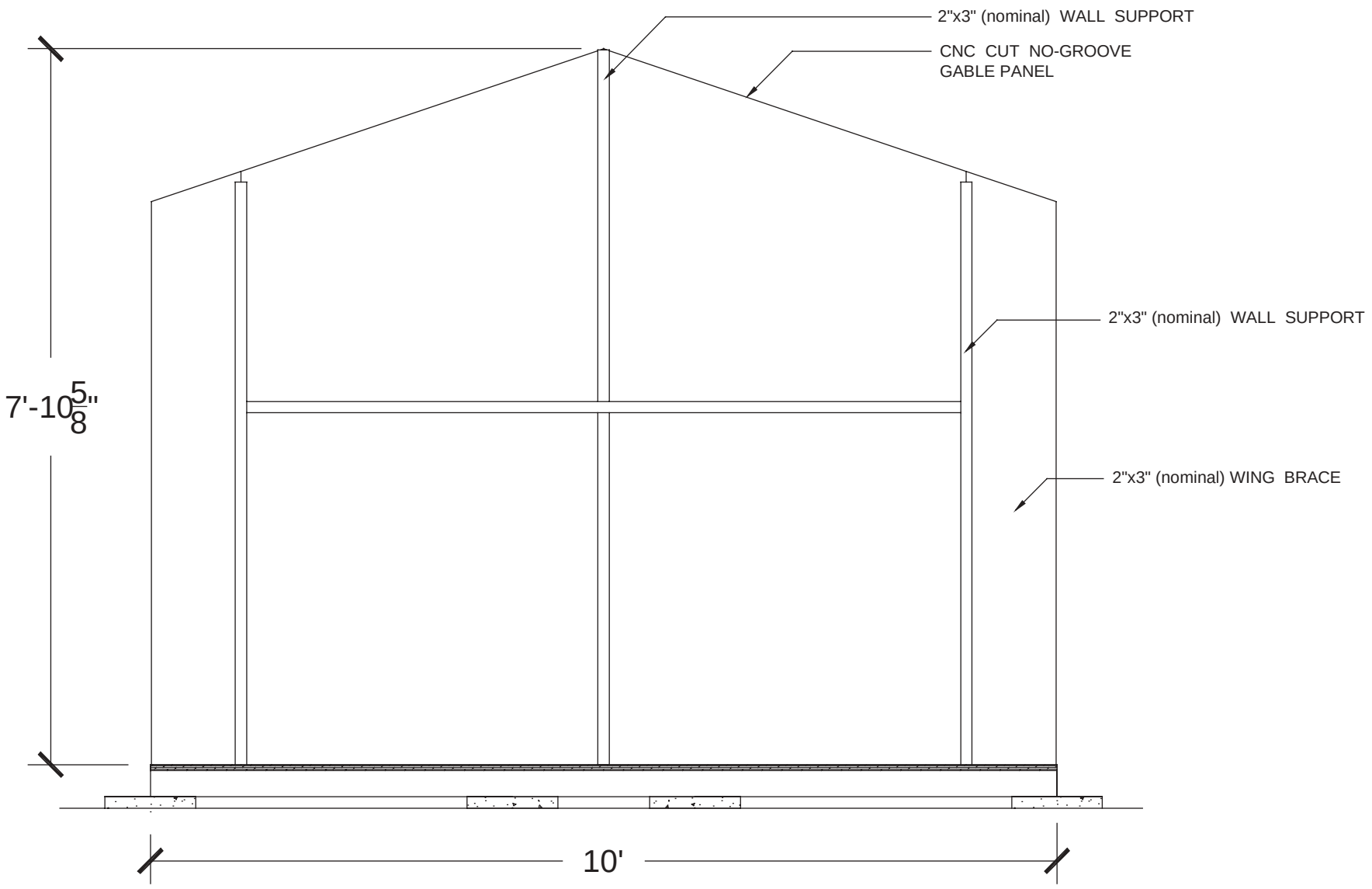
WOOD FLOOR DETAIL



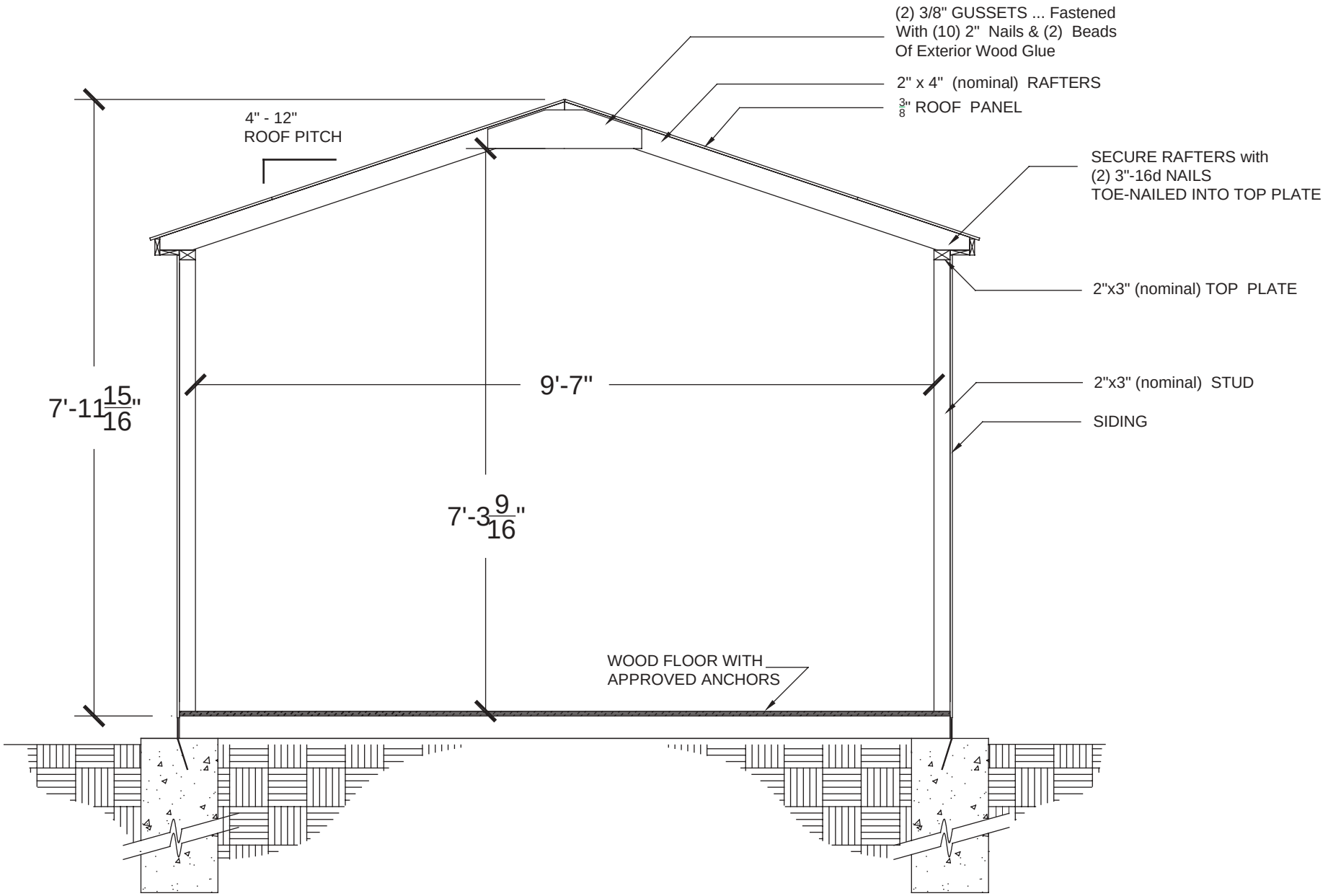
FRONT ELEVATION



LEFT ELEVATION



BACK WALL FRAMING



SECTION DETAIL

NOTES: 1) The Roof System of this 10 ft. wide Gable style building has a live load capacity of 45 PSF.
The equivalent ground snow load per ANCE 7-98 is 88 PSF which exceeds the 17.3 PSF pressure for a 110 mph wind per ASCE 7-98.
2) This plan supplements assembly instructions prepared by Handy Home Products.

STRUCTURAL ANALYSIS:
f b = 1200 PSC
f v = 80 psi
Sx 2"x3" = 1.56 in Area = 3.75 in
Dead Load = 4 PSF (Roof)
Max Rafter Moment = fb Sx/12=306 ft.lb.
Max Rafter Shear = 80x3.75=300 lb.

Max Stud Moment = 156 ft. lb.

WALL SYSTEM:
1) Studs 2x3@24"cc L=3.3ft. w=8M/L2=114PLF=57 PSF
2) Wind Loading V = 110 mph EXP 1
Kz=0.37 Gh=1.65 GCpl=-0.25
I=0.95 Cp=0.8
Velocty Pressure=8z=.00256Kz(IV) =10.3PSF
Design Pressure=P=qfGhCp-(qhGCpl)=16.2PSF
ok<57PSF

ROOF SYSTEM:
1) Rafters 2x4@2'cc w=8M/L2 = 76PLF=45 PSF-4
2) Rafter Shear w=2V/L = 117 PLF=92 PSF-4
3) Sheathing w=45PSF-4=45psf
4) Ground Snow Load: Ref ASCE 7-98
Ps=45PSF I=0.8
Cs=0.95 Ce=0.8
Ct=1.2 Pf=45/0.95=47.4PSF
Pg=PF/.7CeCtI=88 PSF Ground Snow Capacity