

Architectural Design

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As we stay quarantined for the safety of ourselves and our loved ones, I hope my wonderful students are doing well. I do miss you all and hope everything is good!

Project #1

With weeks gone already, I thank those that have managed to log into Tinkercad and completed assignments in Project #1. You will see positive remarks for your work and the end goal is to create a house and log cabin.

In the classroom, we would have created an object to print in the 3D printer. If you are still interested in creating an object to print, please submit it to me and I will notify you if approved for printing.

Project #2

Reading and Interpreting Construction Plans for a Two Bedroom One Bath House

Review the attached construction plans and answer the related questions in one of the following formats.

1. Text me through Remind or at 803-682-0751 for your student id and test number.

Click on this link: <https://student.masteryconnect.com/> to enter your responses via any electronic device.

or...

2. Get a piece of paper (lined, blank, back of envelope, etc...) write your name at the top, number the paper 1-100 with the corresponding answer. Take a picture and text it to me through Remind or at 803-682-0751.

There are 100 questions and 8-construction sheets, you can review them hereon.

Text this message:




@2019design

to 81010

Construction Plan Reading Assignment




Stewart Construction Plans Sheet 1 to 8

Use Sheet 1 to Answer these Questions (1-24):

- What is the size of the ceiling joist?
 - 4x10
 - 2x6
 - 6x18
- What is the spacing of the ceiling joists?
 - 16"
 - 18"
 - 24"
- What is the abbreviation "OC"?
 - One Corner
 - Open Ceiling
 - On Center
- What is the width of the front door?
 - 3'-0"
 - 2'-6"
 - 2'-2"
- What is the abbreviation "LAM BM"?
 - Laminated Beam
- What type of door is used for the front closet?
 - Hinged
 - Bi-fold
 - Pocket
- What is the abbreviation "FAU"?
 - Forced air unit
- What is the symbol for an elevation callout?
 - 
 - 
 - 
- What line convention is used for the wall cabinets?
 - Continuous
 - Dashed
 - Hidden
- What is the abbreviation "WH"?
 - Water Heater
 - Wall Hanger
 - Elevation callout
- What type door is 3?
 - Hinged
 - Bi-fold
 - Pocket
- What is the abbreviation "D"?
 - Dining Room
 - Dryer
 - Drop Outlet
- What is the abbreviation "W"?
 - Water
 - Washer
 - Wall Outlet
- What is the abbreviation "LT"?
 - Laundry Tray/Sink
- What is the abbreviation "R"?
 - Range
 - Refrigerator
 - Riser
- What does the black square symbol in the fireplace represent?
 - Flute
- What do the 45-degree lines in the fireplace represent?
 - Wood
 - Masonry
- What are the overall dimensions for the structure?
 - 32'-0" x 44'-0"
 - 1408 SQ FT
 - 1/4" = 1'-0"

19. What is the window callout used for the living structures?
- (A)
 - (B)
 - (E)
20. What is the total square footage of the structure?
- 1408 Sq Ft
 - 1408 Sq In
 - 1408 Ft
21. What is the scale of the original floor plan drawing?
- $\frac{1}{2}'' = 1'-0''$
 - $\frac{1}{4}'' = 1'-0''$
 - $32'-0'' \times 44'-0''$
22. What geometric symbol represents the door callouts?
- Circle
 - Triangle
 - Square
23. What geometric symbol represents the window callouts?
- Circle
 - Triangle
 - Square
24. What structural member supports the ceiling joints in the living and dining room areas?
- Beams
 - Joists
 - Hangers
25. What is the scale of the original plot plan drawing?
- $\frac{1}{4}'' = 1'-0''$
 - $\frac{3}{32}'' = 1'-0''$
 - $1'' = 30'$
26. What material is used for the front landing (deck)?
- R'WD... red wood
27. What direction is the front of the house facing?
- North
 - South
 - East
28. What is the overall size of the double garage?
- $20' \times 20'$
 - $24' \times 24'$
 - $2'-0'' \times 2'-0''$
29. What is the front setback of the house?
- $43'-0''$
 - $20'-0''$
 - $6'-0''$
30. What is the rear setback of the house?
- $43'-0''$
 - $20'-0''$
 - $6'-0''$
31. What is the rear setback of the garage?
- $43'-0''$
 - $20'-0''$
 - $6'-0''$
32. What are the overall dimensions of the site?
- $44'-0'' \times 32'-0''$
 - $72'-0'' \times 95'-0''$
 - $20'-0'' \times 20'-0''$
33. What is the width of the front walk?
- $4'-0''$
 - $3'-0''$
 - $8'-0''$
34. What do the hidden lines represent on the plot plan?
- Foundation
 - Flower Beds
 - Roof Overhang

Use Sheet 3 to Answer these Questions (35-46):

35. What is the abbreviation "CONT OH"?
- Continuous Overhang
 - Continuous Overhead
36. What is the scale of the original roof plan drawing?
- $\frac{1}{4}'' = 1'-0''$
 - $\frac{3}{32}'' = 1'-0''$
37. What is the abbreviation "GA GI"?
- Gage Galvanized Iron
38. What is used to cover the ends of the rafters?
- Flashing
 - Fascia Board
39. What is the pitch of the roof?
- 6 
 - 8 
 - 12 
40. What do the arrows on the roof plan describe?
- Down slope
 - Roof Rise
41. What do the arrows on the roof plan describe?
- Gable
 - Hip
 - Gambrel
42. What is the scale of the original elevation drawing?
- $\frac{1}{2}'' = 1'-0''$
 - $\frac{1}{4}'' = 1'-0''$
 - $32'-0'' \times 44'-0''$
43. What do the hidden lines on the roof plan represent?
- Outside edge of exterior walls
 - Interior walls
 - Edge of roof

44. What does the small rectangle on the roof plan represent?
- Point of Beginning
 - Chimney
45. What exterior material is used to build the fireplace?
- Brick
 - Rock
 - Wood
46. What are the hidden lines above the windows in the elevations?
- Roof line
 - Ceiling line
 - Ridge line

Use Sheet 4 to Answer these Questions (47-55):

47. What is the standard window height?
- 6'-9"
 - 8'-0"
 - 24"
48. What is the standard door height?
- 6'-9"
 - 8'-0"
 - 24"
49. What is the ceiling height?
- 6'-9"
 - 8'-0"
 - 24"
50. What is the chimney clearance from the ridge board?
- 6'-9"
 - 8'-0"
 - 24"
51. What do the hidden lines on windows and doors depict?
- Window openings
 - Hinged side
 - Slide direction

52. What do the arrowheads on the windows depict?

- a. Window openings
- b. Hinged side
- c. Slide direction

53. Which elevation faces the backyard?

- a. North
- b. South
- c. East

54. What is the scale of the original elevation drawings?



- a. $1/4" = 1'-0"$
- b. $3/32" = 1'-0"$
- c. $1'-0" = 30'$

55. On what side elevation's door are the hinges placed?

- a. Left
- b. Right

Use Sheet 5 to Answer these Questions (56-72):


56. What is the symbol for a heat outlet?

- a. 
- b. \$
- c. 

57. What is the symbol for an electrical floor outlet?

- a. 
- b. 



58. What is the symbol for a switch?

- a. S
- b. \$
- c. 

59. What is the symbol for a convenience duplex outlet?

- a. 
- b. 




60. What is the symbol for a split convenience duplex outlet?

- a. 
- b. 

61. Why would a switch be wired into a convenience outlet?

- a. To control a plugged lamp

62. What is the symbol for a telephone outlet?

- a. 
- b. 
- c. 

63. What does the abbreviation "GFCI" mean?

- a. Grand Faulty Circuit Interlocker
- b. Ground Fault Circuit Interrupter

64. What type of heating system is used?

- a. Perimeter Radial Heating System
- b. Split Unit




65. What is the symbol for a three-way switch?

- a. \$_{DM}
- b. \$
- c. \$₃




66. What is the symbol for a dimmer switch?



- a. \$_{DM}
- b. \$
- c. \$₃

67. What is the symbol for a 240-V outlet?

- a. 
- b. 
- c. 

68. What is the symbol for a water heater?

- a. 
- b. 
- c. 

69. How are the lights in the bedroom closet controlled?
- Light switch
 - Pull chord
 - Dimmer switch
70. What is the electrical symbol required for the cooking range/stove top?
- 
 - 
71. What is the diameter of the heating ducts?
- 4 SQ FT
 - 50,000 BTU
 - 6"
72. What is the material of the heating ducts?
- GI... Galvanized Iron
 - BTU... British Thermal Units
 - SQ FT... Square Feet

Use Sheet 6 to Answer these Questions (73-80):

73. What are the overall dimensions of the front landing?
- 2'-6" x 8'-0"
 - 3 - 4 x 4
 - 1/2" = 1'-0"
74. What is the catalog number for the louvered window?
- ST-A5
 - ST-S9
 - ST-L7
75. What is the catalog number for door #2?
- EXT-75
 - EXT-35
 - ST-S9
76. What type of glass is used in window C?
- Obscured Glass
 - Custom WND MFG
 - Louvered
77. What are the dimensions of window D?
- ST-A9
 - Awning
 - 6'-0" x 5'-0"
78. Where are the solid-core doors located?
- Exterior walls
 - Interior walls
79. What is the thickness of door #1?
- 3'-0"
 - 1-7/8
 - 4 coats
80. What is the finish of door #1?
- Oak
 - Solid core
 - 4 coats of nat oil

Use Sheet 7 to Answer these Questions (81-88):

81. What are the sizes of the studs?
- 2x4
 - 4x6
 - 4x12
82. What is the spacing of the studs?
- 16" OC
 - 18" OC
83. What are the sizes of the window lintels (headers)?
- 2x4
 - 4x6
 - 4x12
84. What is the size of the door lintel (header)?
- 2x4
 - 4x6
 - 4x12
85. What type of diagonal brace is used?
- Lintel
 - Let-in
 - Studs

86. How many studs are used to frame an exterior wall corner?

- a. 1
- b. 2
- c. 3

87. How many studs are used to frame interior intersection walls?

- a. 1
- b. 2
- c. 3

88. What are the short studs under the window sill and over the window header called?

- a. Trimmer
- b. Spacer
- c. Cripple

Use Sheet 8 to Answer these Questions (89-98)

89. Must the slab's overall dimension be the same as the stud layout plan?

- a. No
- b. Yes

90. What does the section D-D represent?

- a. Exterior footing
- b. Interior footing
- c. Fireplace

91. What does the section E-E depict?

- a. Exterior footing
- b. Interior footing
- c. Fireplace

92. What does the section F-F depict?

- a. Exterior footing
- b. Interior footing
- c. Fireplace

93. What is the width of the interior footings?

- a. 4"
- b. 12"

94. What is the thickness of the slab?

- a. 4"
- b. 12"

95. What is the diameter of the slab's reinforcing bars?

- a. 1/2"
- b. 9"

96. What is the spacing of the slab's interior footings?

- a. 1/2"
- b. 9"

97. What is the purpose of the slab's interior footings?

- a. Hurricane safety
- b. Support the roof
- c. Support the interior walls

98. What is the original scale of the slab foundation's drawings?

- a. 1/4" = 1'-0"
- b. 3/32" = 1'-0"
- c. 1'-0" = 30'-0"

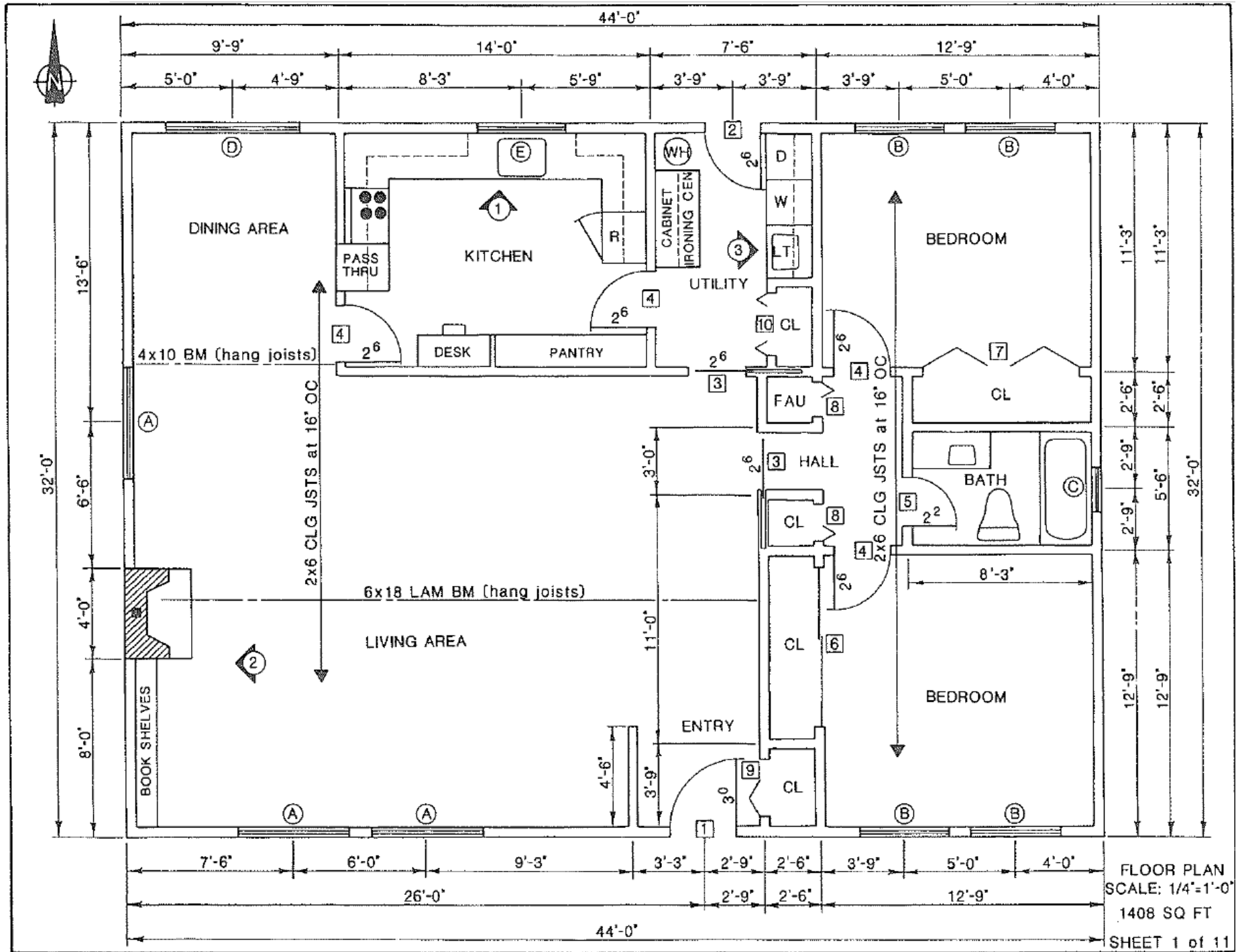
99. Answer E for online responding

100. Answer E for online responding

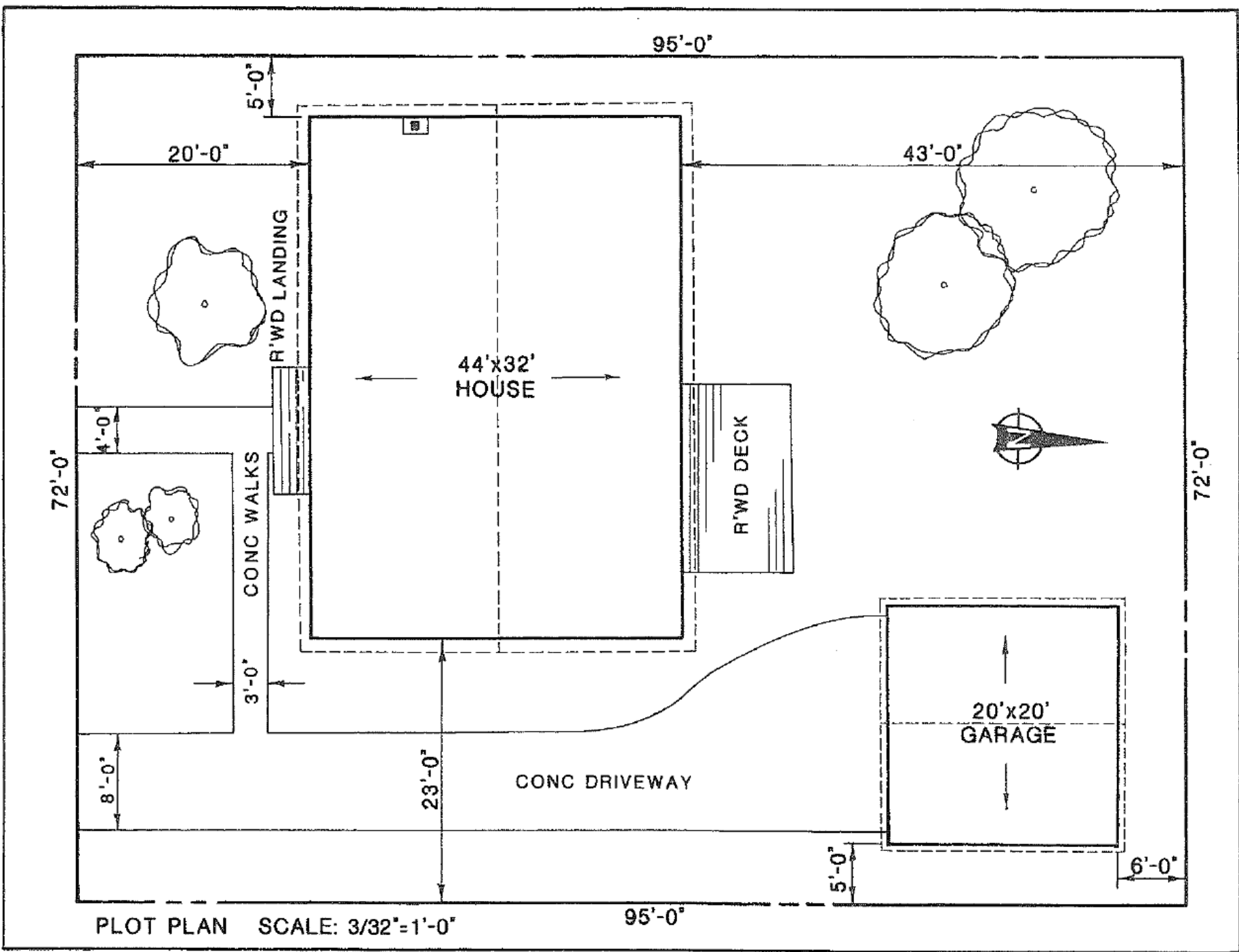
Construction Plan Sheets are on the following pages.

Please check that you are on the correct Sheet to find the answers.

All answers are visibly written and noted on each corresponding sheet.



FLOOR PLAN
 SCALE: 1/4"=1'-0"
 1408 SQ FT
 SHEET 1 of 11



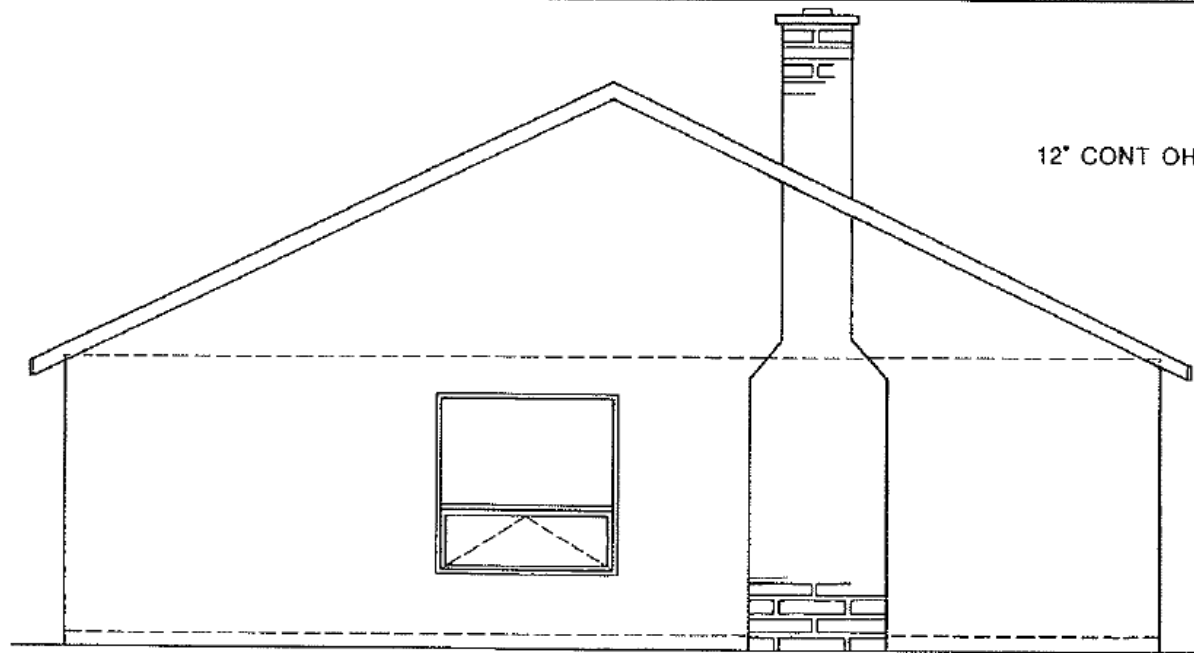
PLOT PLAN SCALE: 3/32"=1'-0"

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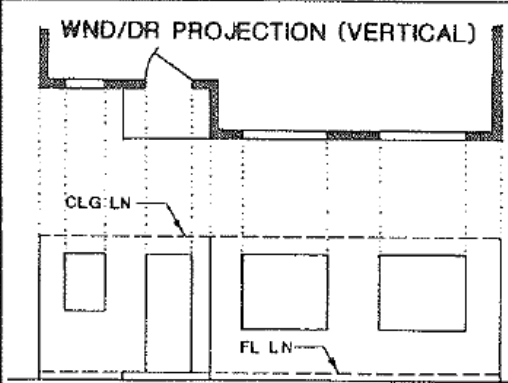
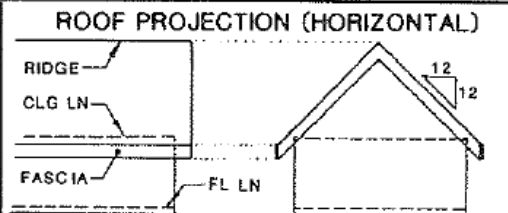
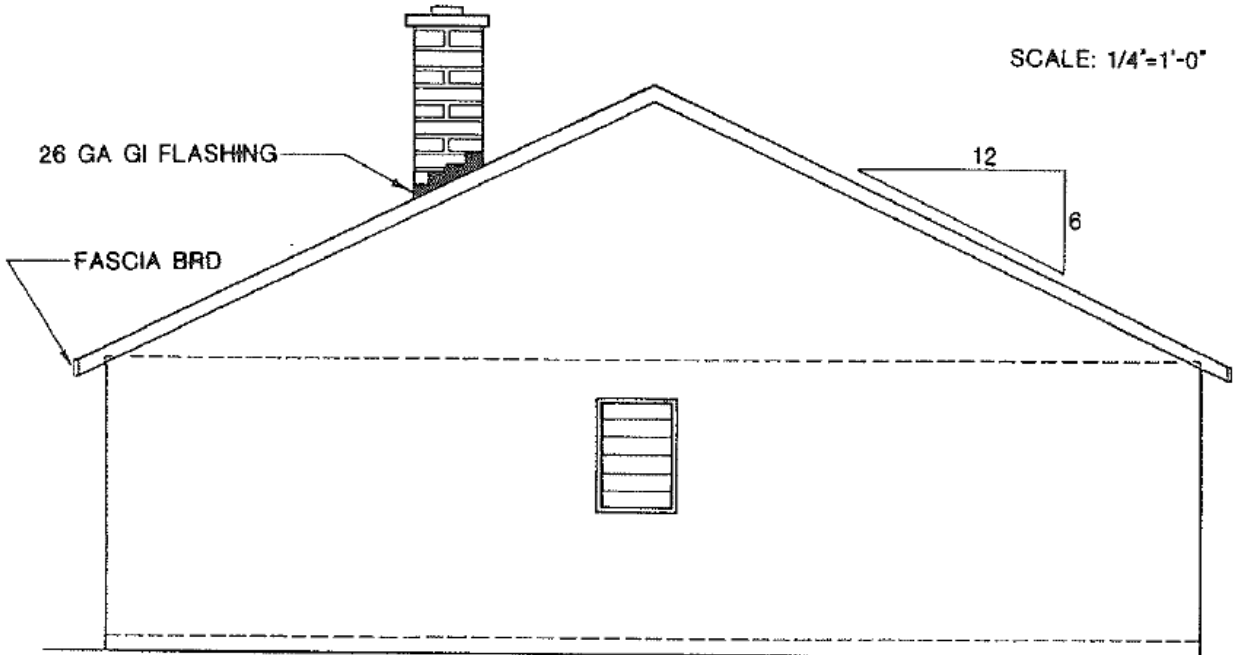
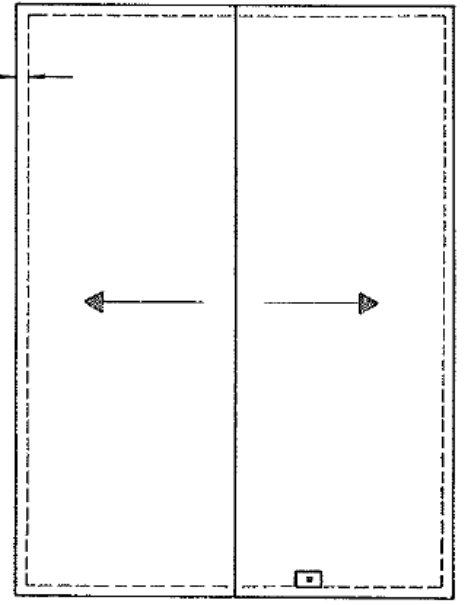
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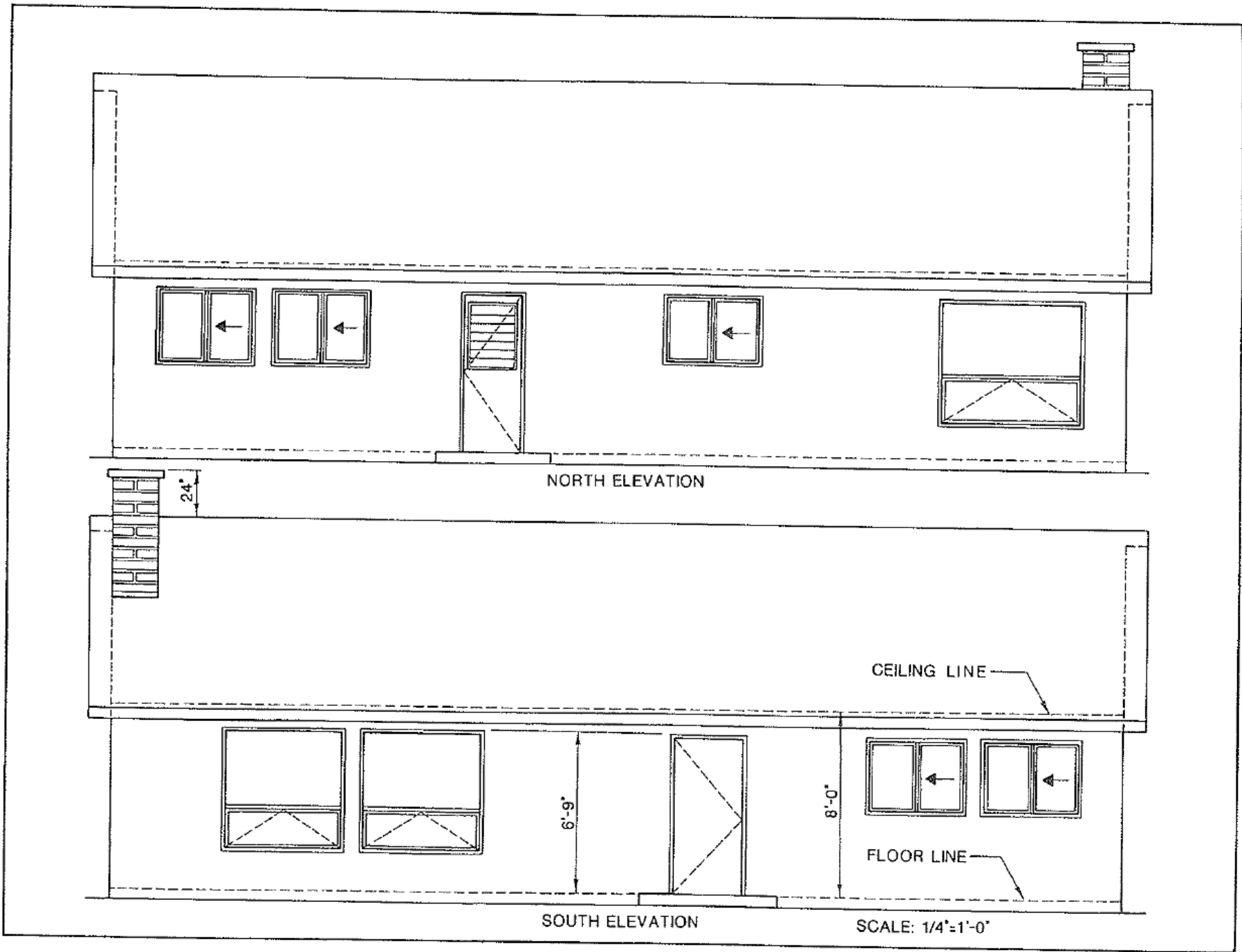
Plan Set 6, Drawing 3 of 11



ROOF PLAN SCALE: 3/32"=1'-0"



INSTRUCTIONAL - DO NOT DRAW

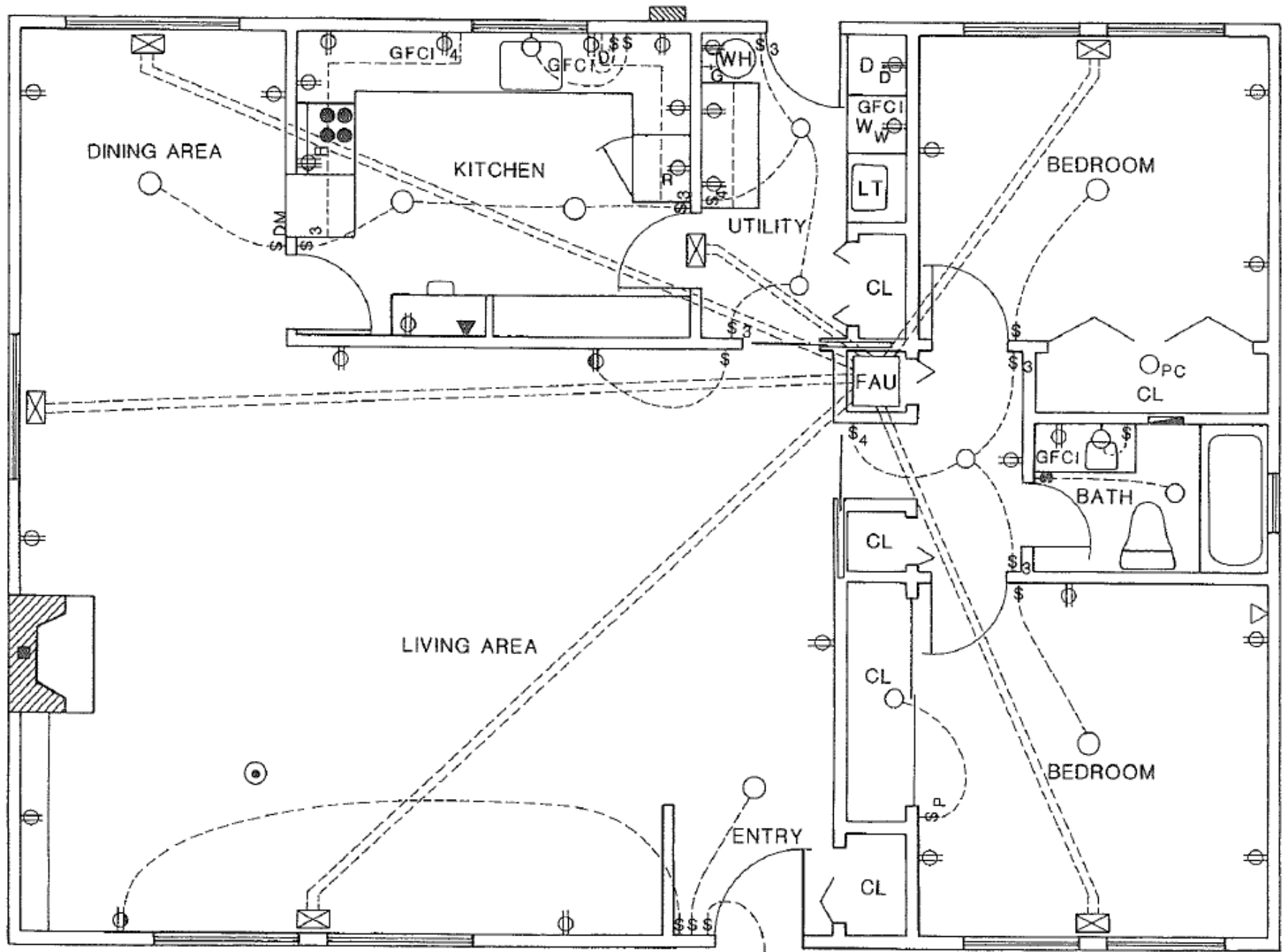


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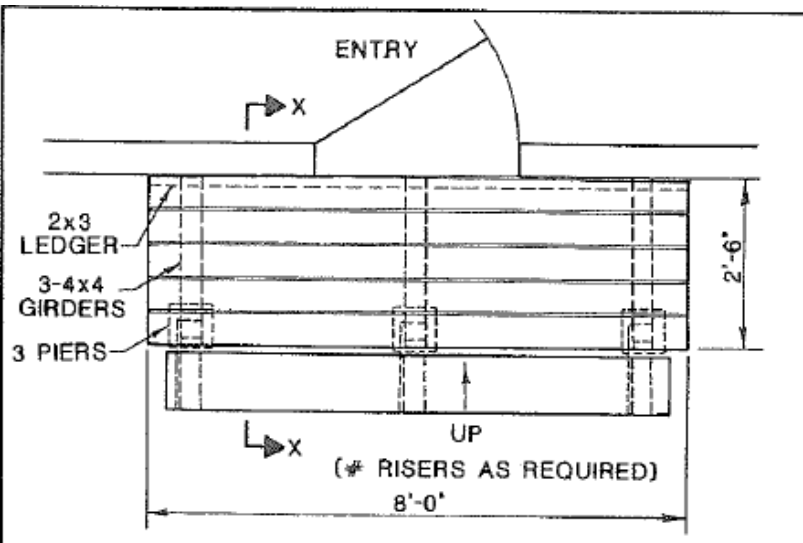
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Plan Set 6, Drawing 5 of 11

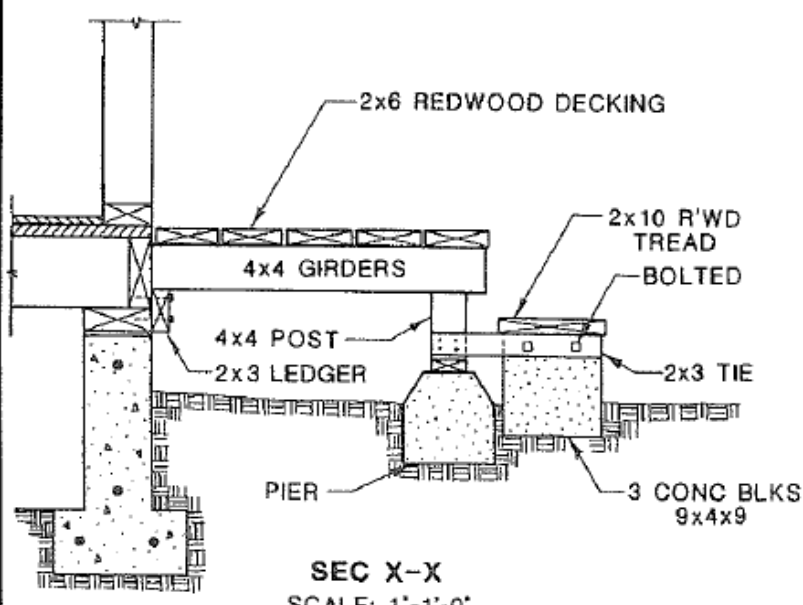


ELECTRICAL PLAN

PERIMETER RADIAL HEATING SYSTEM PLAN
4 SQ FT FLOOR SPACE FOR 50,000 BTU OUTPUT FURNACE
GI 6" DUCTS



FRONT LANDING PLAN
(REAR DECK SIMILAR CONST)
SCALE: 1/2"=1'-0"



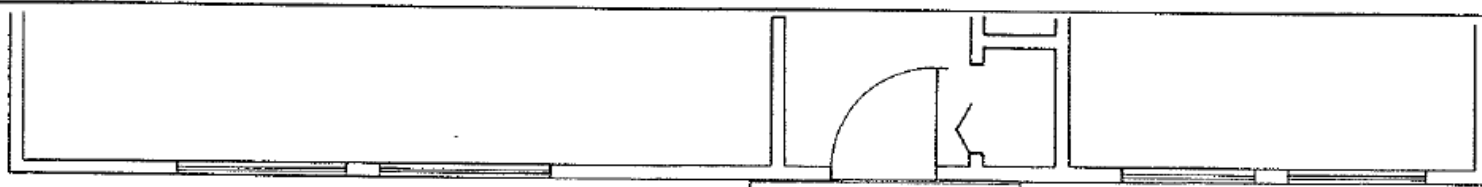
SEC X-X
SCALE: 1"=1'-0"

W I N D O W S C H E D U L E

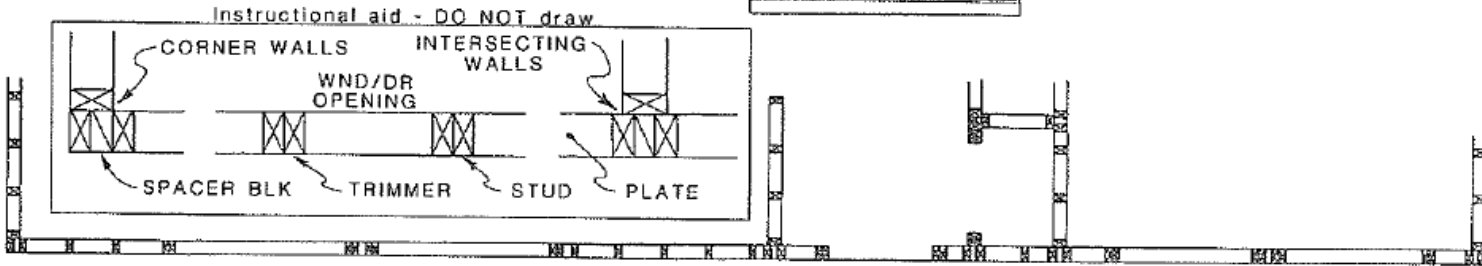
SYM	WIDTH	HEIGHT	THICK.	MATERIAL	TYPE	SCREEN	QUAN	MANUF	CAT #	REMARKS
A	5'-0"	5'-0"	1 7/8"	STEEL	AWNING	YES	3	CUSTOM WIND MFG	ST-A5	
B	4'-0"	3'-0"	1 7/8"	STEEL	SLIDING	YES	4	"	ST-S9	
C	2'-0"	3'-0"	1 7/8"	STEEL	LOUVERED	NO	1	"	ST-L7	OBSCURED GLASS
D	6'-0"	5'-0"	1 7/8"	STEEL	AWNING	YES	1	"	ST-A9	
E	4'-0"	2'-9"	1 7/8"	STEEL	SLIDING	YES	1	"	ST-S7	

D O O R S C H E D U L E

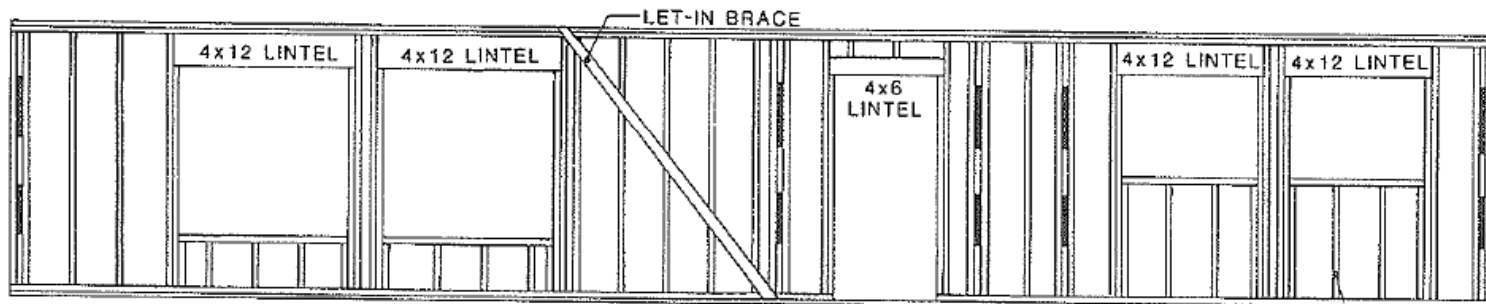
SYM	WIDTH	HEIGHT	THICK.	MATERIAL	TYPE	SCRN	QUAN	MANUF	CAT #	REMARKS
1	3'-0"	6'-8"	1 7/8"	OAK	SOLID CORE	NO	1	CUSTOM DR MFG	EXT-75	4 COATS NAT OIL
2	2'-6"	"	1 7/8"	FIR	SOLID CORE	YES	1	"	EXT-35	2'x3' LOUVERED WND
3	2'-6"	"	1 1/2"	MAHOGANY	HOLLOW CORE	NO	2	"	SLGD-7	SLDG POCKET DOORS
4	2'-6"	"	1 3/8"	MAHOGANY	HOLLOW CORE	NO	4	"	INT-9	2 COATS VARNISH
5	2'-2"	"	1 3/8"	MAHOGANY	HOLLOW CORE	NO	1	"	INT-3	4 COATS VARNISH
6	3'-0"	"	1 3/8"	MAHOGANY	HOLLOW CORE	NO	2	"	CL-80	2 COATS VARNISH
7	21"	"	3/4"	PINE	LOUVERED	NO	4	"	LV-22	PAINT TRIM COLOR
8	7"	"	3/4"	PINE	LOUVERED	NO	4	"	LV-10	PAINT TRIM COLOR
9	12"	"	3/4"	PINE	LOUVERED	NO	4	"	LV-14	PAINT TRIM COLOR
10	6"	"	3/4"	PINE	LOUVERED	NO	4	"	LV-09	PAINT TRIM COLOR



FLOOR PLAN - SOUTH WALL



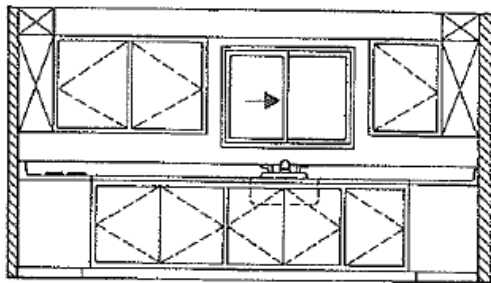
SOUTH EXTERIOR WALL STUD LAYOUT



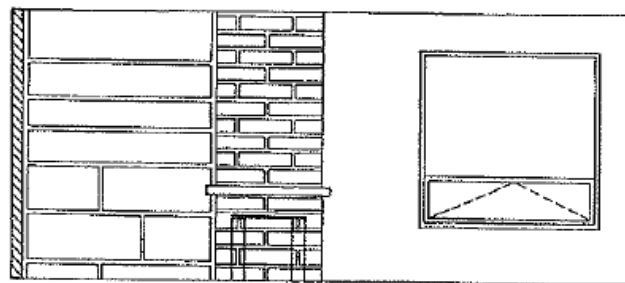
SOUTH EXTERIOR WALL FRAMING PLAN

2x4 STUDS at 16" OC

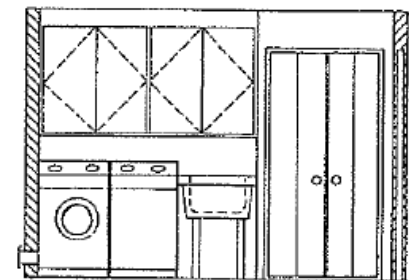
FRAMING & INTERIOR ELEVATIONS



INT ELEV 1

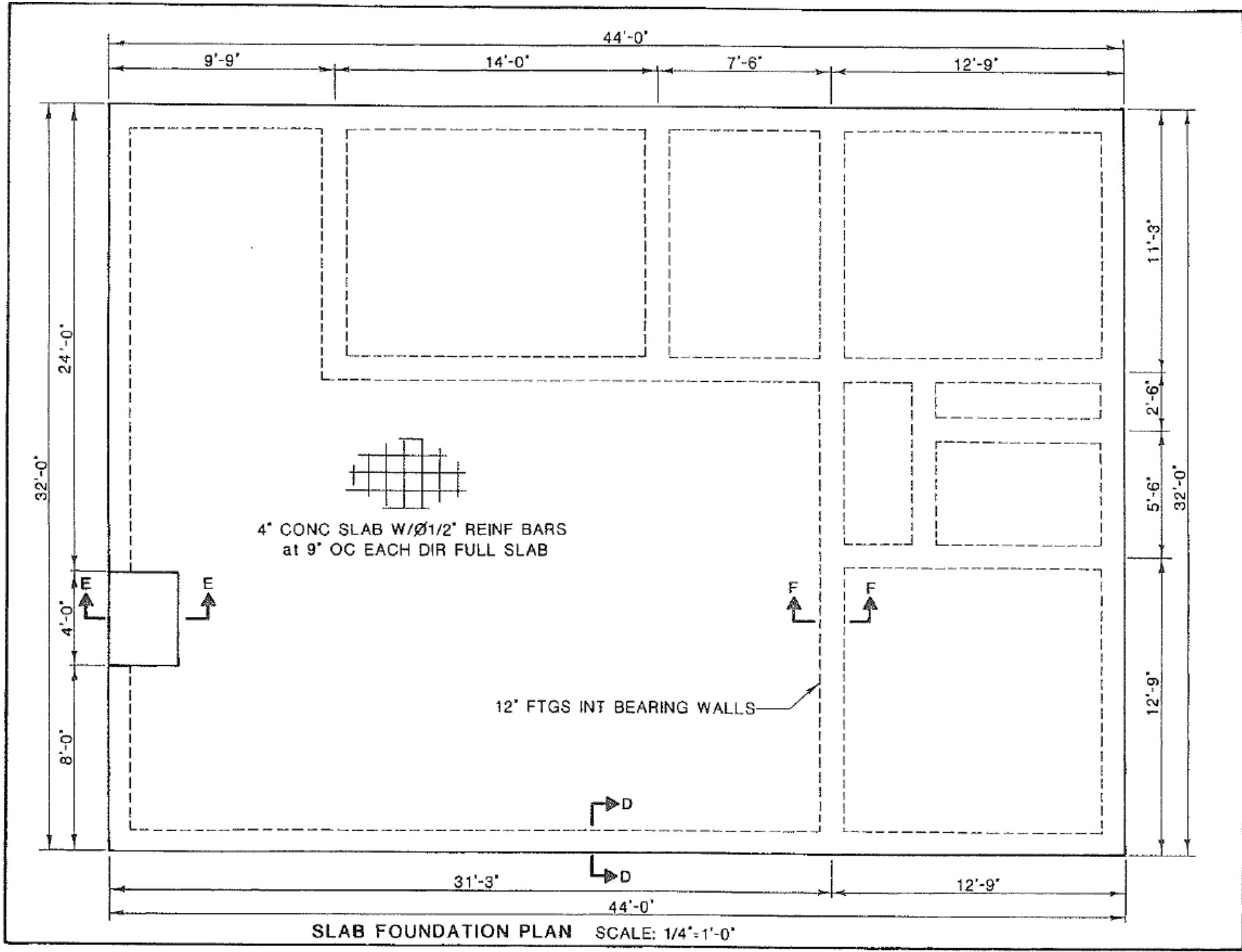


INT ELEV 2



INT ELEV 3

Plan Set 6, Drawing 7 of 11



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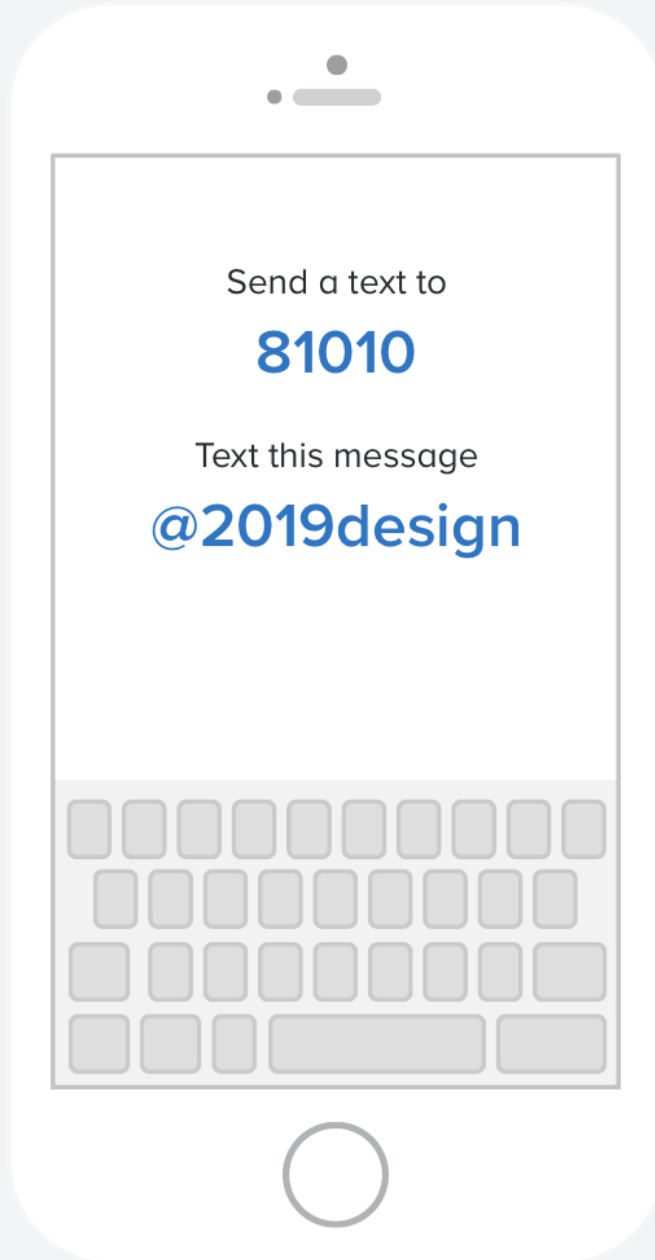
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Tell people to take out their phones.



Text this message:

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to **81010**