



INTRODUCTION

Building plans consist of drawings and writing material needed to communicate information of the construction process. This information must be presented in a consistent and reliable form so as to serve people involved in all aspects of building construction.

FOCUS ASSIGNMENTS

FOCUS ASSIGNMENTS	
1.	Study the electrical symbols in objective 6.
2.	Create at least 5 original symbols that could be added to that list.
 Reading	 Writing

UNIT OBJECTIVE

After completing this unit, you will show the following competencies by mastering the activities on the Assignment Sheets and by scoring at least 85% on the Written Test.

SPECIFIC OBJECTIVES

1. Match types of drawings usually included in a set of plans to their correct descriptions.
2. List information found on types of drawings in a set of plans.
3. Match lines in the alphabet of lines to their correct uses.
4. Identify lines in the alphabet of lines.
5. Identify selected architectural symbols commonly used to represent materials on plans.
6. Identify selected electrical symbols commonly used on plans.
7. Identify selected mechanical symbols commonly used on plans.
8. Identify selected abbreviations commonly used on plans.
9. Match architect's conventions to their correct representations.
10. State the purposes of written specifications.



11. Select from a list basic information included in a set of written specifications.
12. State the purpose of an engineer's scale.
13. Use an architect's scale. (Assignment Sheet 1)
14. Use an engineer's scale. (Assignment Sheet 2)
15. Read plans. (Assignment Sheet 3)
16. Interpret a finish schedule. (Assignment Sheet 4)
17. Read written specifications. (Assignment Sheet 5)



OBJECTIVE 1

Match types of drawings usually included in a set of plans to their correct descriptions.

- **plot plan** — horizontal view showing where the building is to be located on the site
- **foundation plan** — horizontal view of entire masonry substructure below first floor or frame of building
- **floor plan** — horizontal view of building, showing length and breadth of building and layout of rooms on that floor
- **elevation** — vertical, two-dimensional view of each of the exterior faces of a building, showing general shape and design of exterior and roof
- **section** — cut-away vertical view through an object or wall to show its interior makeup

✓ **NOTE:** A section view is limited to the specific portion of the building the architect wishes to clarify, and may be drawn on the same sheet as an elevation or plan or may appear on a separate sheet.

- **detail** — graphic, at a larger scale, of part of another drawing, indicating special features of design, location, and composition and the correlation of the elements and materials shown

✓ **NOTE:** Detail drawings often use the cut-away section view to show aspects that are too small to be shown in sufficient detail on plan or elevation drawings. Like section drawings, detail drawings may be drawn on the same sheet as an elevation or plan drawing or may appear on a separate sheet in the set of plans.



OBJECTIVE 2

List information found on types of drawings in a set of plans.

WORDS YOU SHOULD KNOW

elevation given grade

Plot plan

- Location, dimensions, and elevation of structure on site
- Finished and existing grade contours
- Property lines and dimensions
- Location of utilities
- Location of existing conditions

EXAMPLES: Trees, utility buildings, other structures

- Location and dimensions of driveways and walks

Foundation plan

- Location and dimensions of footings, grade beams, foundation walls, stem walls, piers, equipment footings, foundations
- Location of anchor bolts (in detail view)

Floor plan

- Outside walls, including location and dimensions of all exterior openings
- Types of construction materials
- Location of interior walls and partitions
- Location and swing of doors
- Stairways
- Location of windows
- Location of cabinets, electrical and mechanical equipment, and fixtures
- Location of cutting plane line



Elevation

- Grade lines
- Floor height
- Window and door types
- Roof lines and slope, roofing material, vents, gravel stops, projection of eaves
- Exterior finish materials and trim
- Exterior dimensions

Section

- Details of construction and information about stairs, walls, chimneys, or other parts of construction that may not show clearly on plan
- Floor levels in relation to grade
- Wall thickness at various locations
- Anchors and reinforcing steel

Detail

✓ **NOTE:** The following list itemizes types of information that may require a detail drawing. All of the items listed would never appear on a single detail drawing.

- Footings and foundations, including anchor bolts, reinforcing, control joints
- Beams, floor joists, bridging, other support members
- Sills, floor framing, exterior walls, vapor barriers
- Floor heights, thickness, expansion, reinforcing
- Interior walls
- Windows, exterior and interior doors, door frames
- Roof, cornice, soffit, ceilings
- Gravel stops, fascia, flashing
- Fireplaces, chimneys
- Staircases, stair assembly
- Millwork, trim, ornamental iron, specialty items



OBJECTIVE 3

Match lines in the alphabet of lines to their correct uses.

- **object lines** — Used to show main outline of structure, including exterior walls, interior partitions, porches, patios, sidewalks, parking lots, and driveways

✓ **NOTE:** Object lines are always the heaviest lines in the drawing.

- **dimension line** — Used to designate object and area dimensions

✓ **NOTE:** Dimension lines may end in arrows, dots, or slashes. The dimension is usually written above the dimension line.

- **extension lines** — Used as parameters for dimension lines

- **hidden line** — Used to show lines that are not visible from view depicted

- **center line** — Used to designate center and to provide a reference point for dimensioning

- **cutting plane (section line)** — Used to indicate an area that has been cut away and shown in a section view; arrows indicate direction from which section drawing is to be viewed

- **phantom line** — Used to indicate alternative positions of moving parts, adjacent positions of related parts, and for repeated details

- **break line** — Used to show that an object or area has not been drawn in its entirety

- **leader line** — Used to connect a note or dimension to a related part of the drawing

✓ **NOTE:** Leader lines are sometimes curved to avoid confusion with dimension lines and other lines.

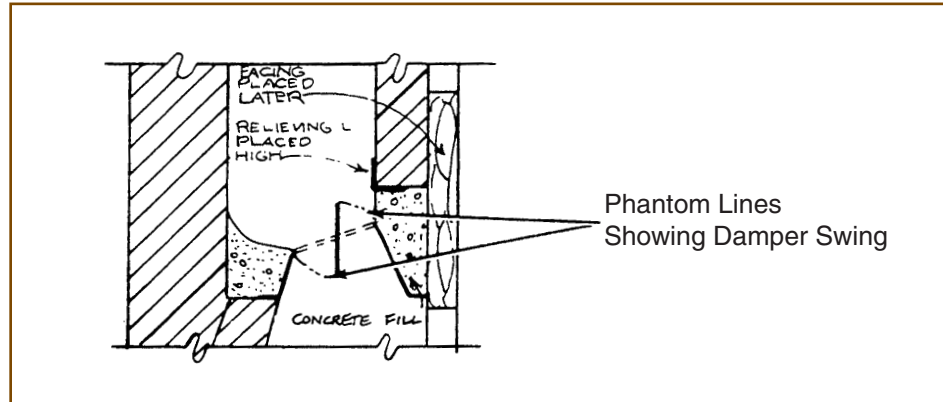


OBJECTIVE 4

Identify lines in the alphabet of lines.

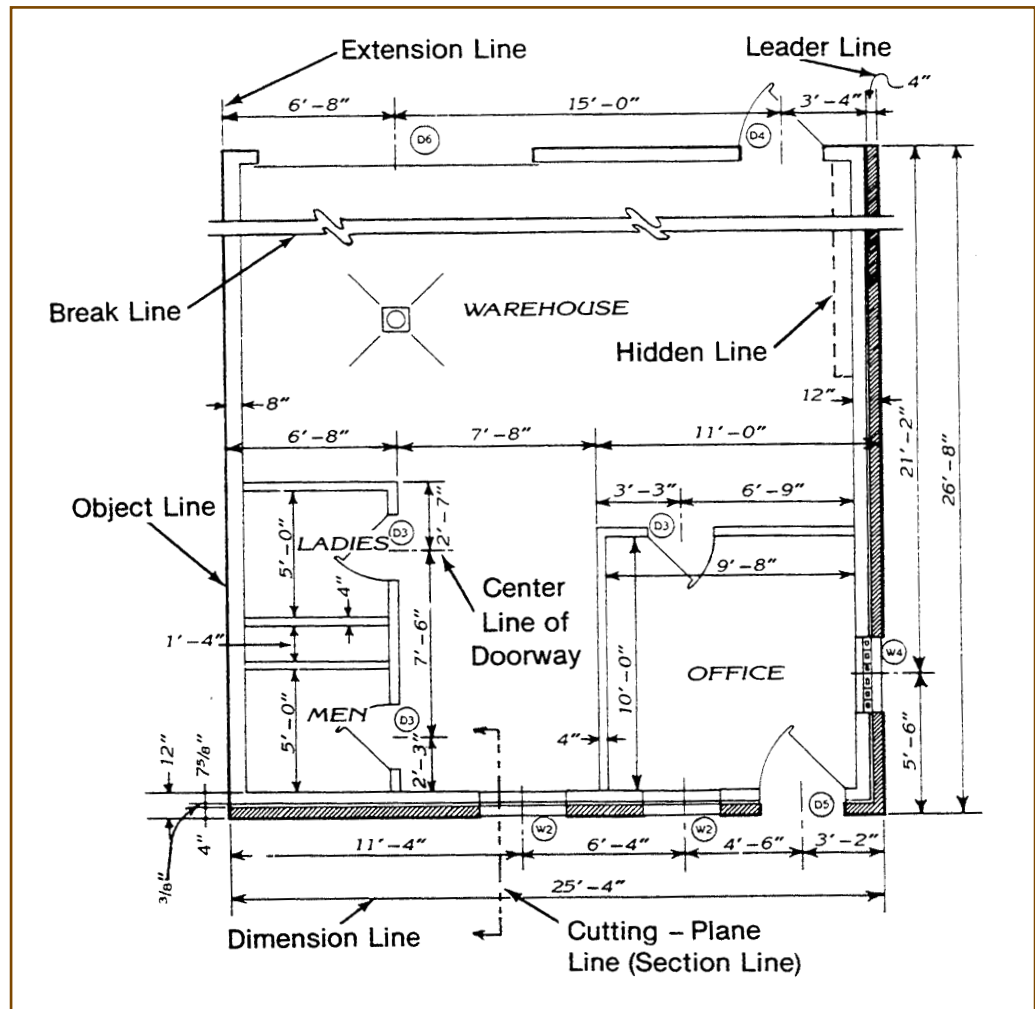
Phantom line

FIGURE 1



Other lines

FIGURE 2



OBJECTIVE 5

Identify selected architectural symbols commonly used to represent materials on plans.

TABLE 1: General plan symbols








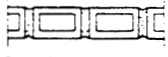
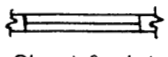

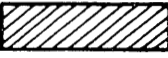
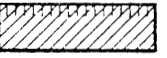


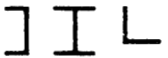




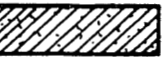

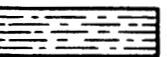
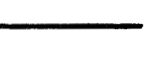
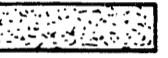
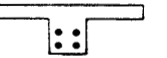


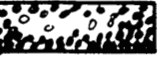


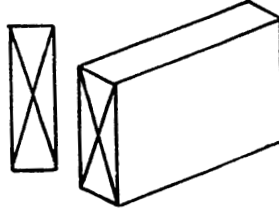
Wood	 Finish	 Rough	 Wood finish on stud	
Concrete	 Concrete	 Block		
Insulation	 Loose fill or batts	 Boards or quilts		
Glass	 Block	 Sheet & plate		
Brick	 Common	 Face	 Fire brick on common	 Brick veneer
Metal	 Steel, iron	 Structural steel	 Brass, bronze	 Metal stud & partition plaster
	 Aluminum			
Stone	 Cut stone	 Rubble	 Marble	 Slate, bluestone, soapstone
Miscellaneous	 Waterproofing, felt, flashing, etc.	 Plaster, sand, cement, or drywall	 Reinforcing bars	 Glazed clay tile
	 Earth	 Gravel	 Gravel with sand	 Cinders

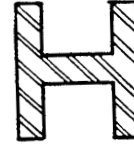


TABLE 2: Section view symbols

Rough lumber



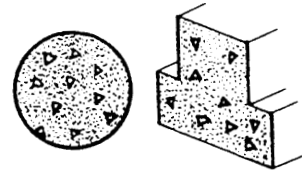
Metal



Earth



Concrete



OBJECTIVE 6 | Identify selected electrical symbols commonly used on plans.













TABLE 3: Common electrical symbols

General outlets		Receptacle outlets	
Junction box, ceiling		Duplex receptacle outlet	
Range outlet		Grounded outlet, duplex	
Fan outlet, ceiling		Special-purpose receptacle outlet, single	
Recess incandescent, wall		Weather proof outlet, duplex	
Surface incandescent, ceiling		Switch and single receptacle	
Surface or pendant single fluorescent fixture			

✓ **NOTE:** Subscript letters with the symbol indicate functions, such as “DW” for dishwasher or “DF” for drinking fountain.



TABLE 3: Common electrical symbols (continued)



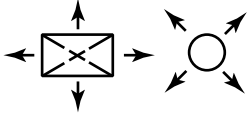

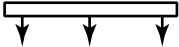

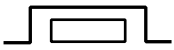

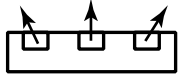
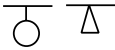
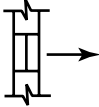

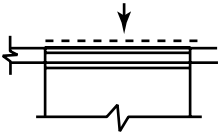
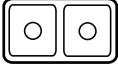

Switch outlets		Auxiliary systems	
Single pole switch	S	Telephone jack	
Double-pole switch	S₂	Meter	 
Three-way switch	S₃	Vacuum outlet	
Four-way switch	S₄	Electric door opener	
Weatherproof switch	S_{WP}	Chime	
Fused switch	S_F	Push button (doorbell)	
Circuit breaker	S_{CB}	Bell and buzzer combination	
Lighting panel		Kitchen ventilating fan	
Power panel		Television outlet	



OBJECTIVE 7

Identify selected mechanical symbols commonly used on plans.

TABLE 4: Mechanical symbols

Heating and air conditioning		Plumbing	
Exhaust, return, or outside air duct section		Water closet (low tank)	
Supply outlet, ceiling diffuser		Wall lavatory	
Linear radiator		Corner bath	
Recessed radiator		Shower stall	
Unit heater		Shower head	
Louver opening		Residential sink (single)	
Intake louvers on screen		Double sink	
		Hose bib	

✓ **NOTE:** Letters with the symbol indicate functions, such as LT for low tank.



OBJECTIVE 8

Identify selected abbreviations commonly used on plans.

✓ **NOTE:** Many of the following abbreviations may also appear on written specifications; however, there is less standardization on specifications, and the abbreviations may contain periods and be written in lower case letters.

Anchor bolt — AB	Disposal — DISP
Architectural — ARCH	Double hung — DH
Bathroom — B	Double-strength glass — DSG
Bearing plate — BRG PL	Downspout — DS
Bench mark — BM	Dressed and matched — D & M
Block — BLK	Elevation — ELEV
Blocking — BLKG	Entry — ENT
Bookshelf — BKSH	Exhaust — EXH
Brick — BRK	Expansion joint — EXP JT
Building line — BL	Finish floor — FIN FL
Cabinet — CAB	Finish grade — FG
Center — CL or C	Firebrick — FBRK
Center line — CL or ℄	Fireplace — FP
Center to center — CC or C to C	Flashing — FL
Clean-out door — COD	Foundation — FDN
Closet — C, CL, CLO	Full size — FS
Column — COL	Furring — FUR
Concrete block — CONC B	Gas — G
Counter — CTR	Glass block — GL BL
Cut out — CO	Grade — GR
Detail — DET	Grade line — GL
Dimension — DIM	Hardware — HDW
Dining room — DR	Hollow metal door — HMD
Dishwasher — DW	Hose bib — HB



Inside diameter — ID	Recessed — REC
Insulation — INS	Reinforced — REINF
Jamb — JB	Required — REQD
Joint — JT	Riser — R
Joist — JST	Rough opening — RO
Kitchen — K	Scale — SC
Lavatory — LAV	Sheathing — SHTHG
Lineal — LIN	Single-strength glass — SSG
Living room — LR	Soil pipe — SP
Masonry opening — MO	Specifications — SPEC
Material — MATL	Standard — STD
Metal clad — MC	Steel — ST or STL
Natural grade — NG	Stone — STN
Nosing — NOS	Structural — STR
Not to scale — NTS	Terra cotta — TC
On center — OC	Typical — TYP
Opening — OPNG	Utility room — U RM or UR
Overhead — OVH	Vanity — VAN
Partition — PTN	Waterproofing — WP
Plaster — PL or PLAS	Weep hole — WH
Plate — PL	Wire mesh — WM
Plywood — PLYWD	Wood — WD
Precast — PRCST	Wood frame — WF
Radius — R	



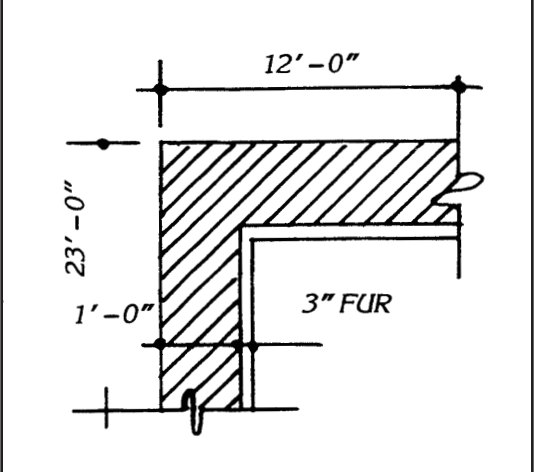
OBJECTIVE 9

Match architect's conventions to their correct representations.

WORDS YOU SHOULD KNOW

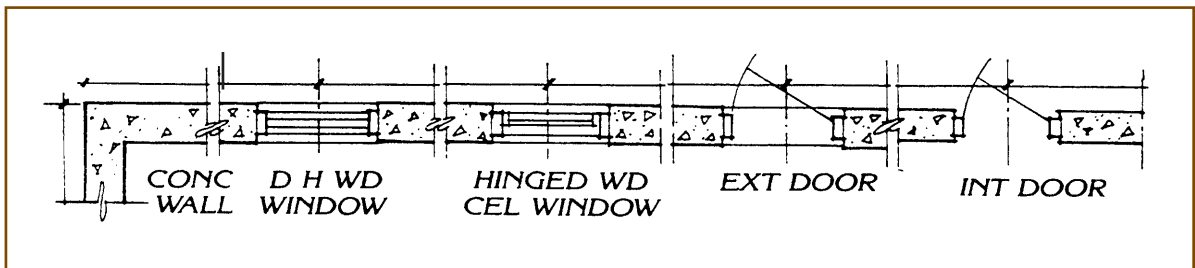
convention	architect's standard methods of representing dimensions and structural details (Figure 3)
-------------------	---

FIGURE 3



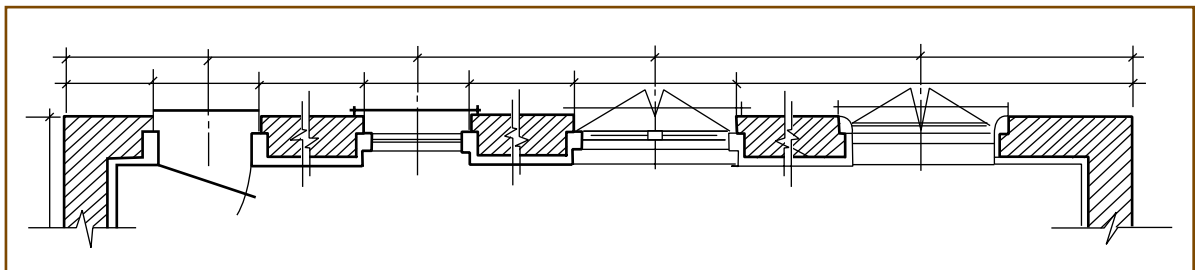
- Doors and windows in concrete wall

FIGURE 4



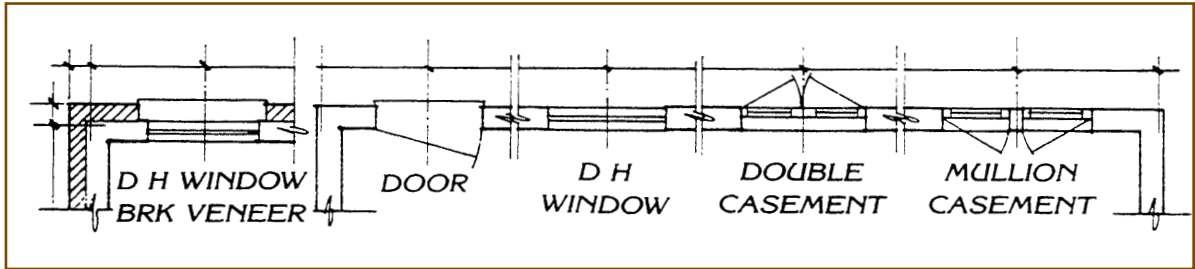
- Doors and windows in solid brick wall

FIGURE 5



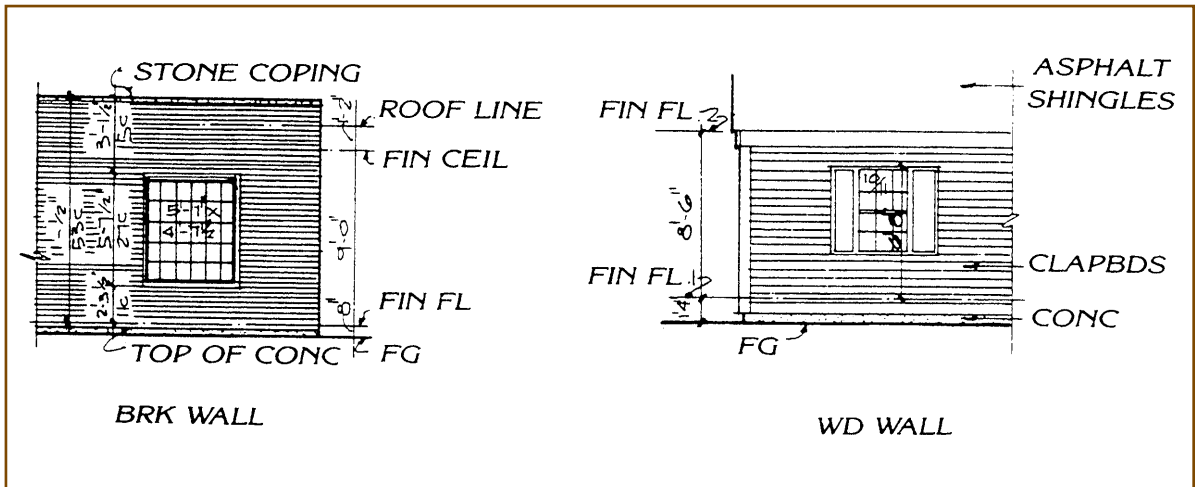
- Doors and windows in brick veneer and wood stud walls

FIGURE 6



- Window elevations

FIGURE 7



- Dimensioning exterior and interior walls

FIGURE 8

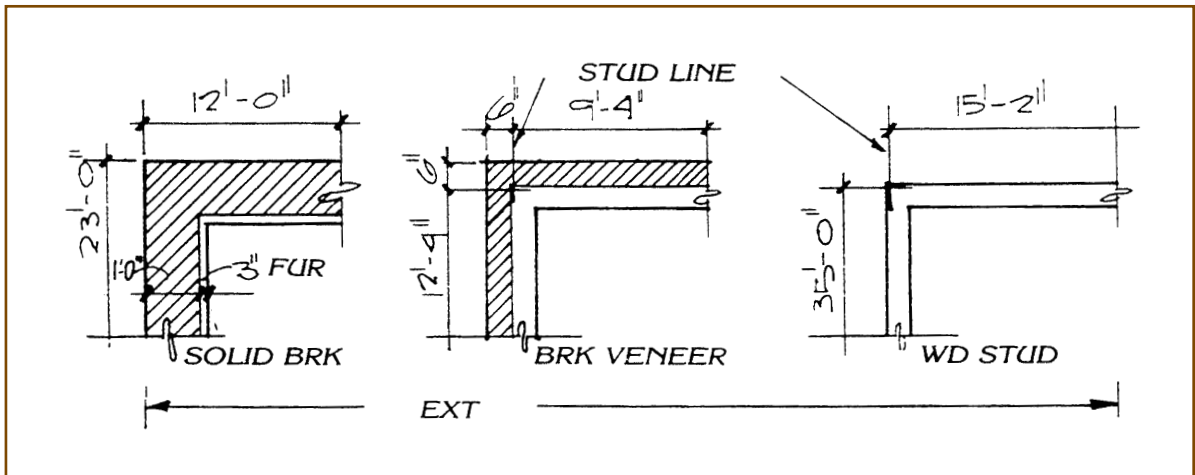
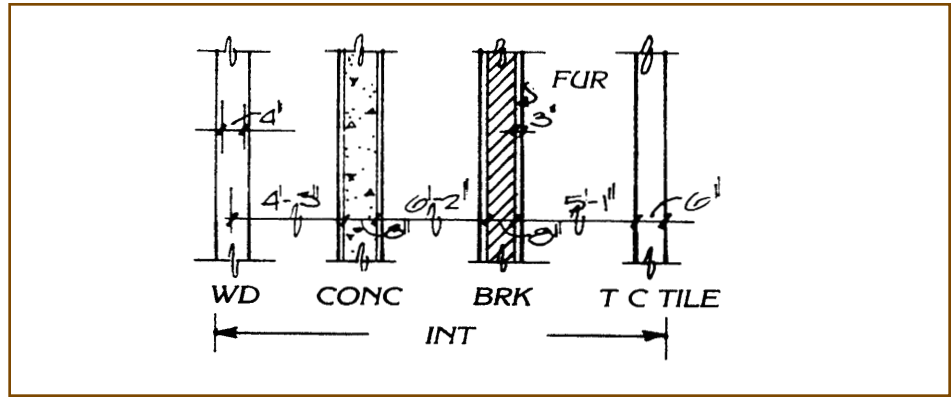
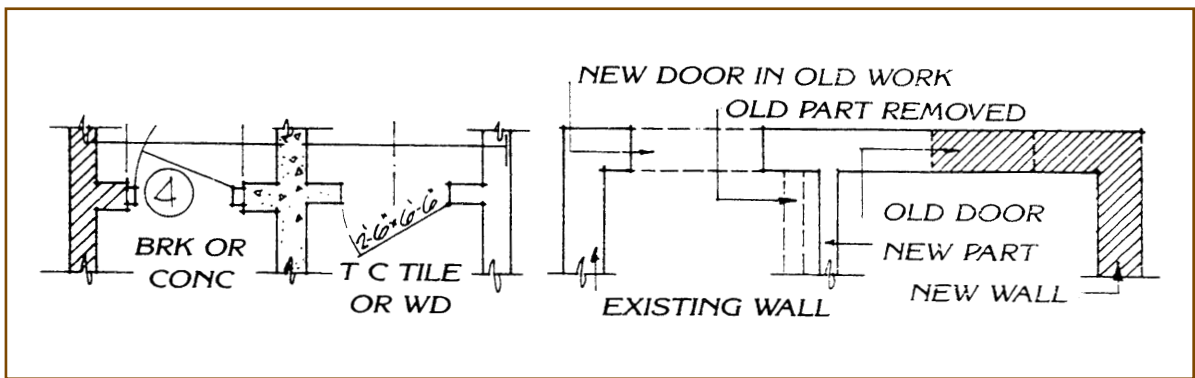


FIGURE 9



- Interior dimensions and alterations

FIGURE 10



OBJECTIVE 10

State the purposes of written specifications.

WORDS YOU SHOULD KNOW

specifications	detailed set of written instructions that supplement the set of plans, describe equipment and materials used in the structure, and become part of the contract
-----------------------	--

✓ **NOTE:** Written specifications are equally as important as the drawings in a set of plans. They furnish what the drawings cannot, in that they give detailed and accurate written descriptions of work to be done, including quality and quantity of materials, methods of construction, standards of construction, and manner of conducting the work.

- Avoiding disputes among builders, architects, and owners by leaving no room for misinterpretation or misunderstanding



- Facilitating the checking of materials and workmanship during the time the building is being constructed
- Enabling contractors to make bids based on total materials and labor required
- Avoiding expensive omissions when estimating total costs
- Avoiding conflicting opinions during construction and avoiding the added costs and delays that could result

OBJECTIVE 11

Select from a list basic information included in a set of written specifications.

- Contract
- Synopsis
- General requirements
- Owner's name and address
- Architect's name
- Location of structure
- Completion date
- Guarantees
- Insurance requirements
- Methods of construction
- Types and quality of building materials
- Sizes

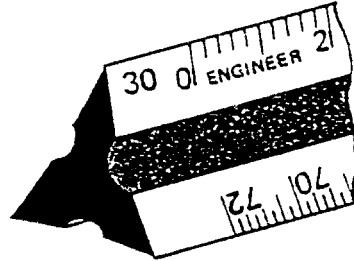


OBJECTIVE 12

State the purpose of an engineer's scale.

WORDS YOU SHOULD KNOW

engineer's scale three-sided rule with six ruled faces that is read in one direction only; there are no inch divisions of a foot in this rule



- An engineer's scale is used for measuring when drawing plot plans; plot plans are drawn at a smaller scale than other drawings. Common size scales used are 1" = 10"-0', 1" = 20"-0', 1" = 30"-0' etc.
- An engineer's scale is used to check dimensions on plot plans.

OBJECTIVE 13

Complete Assignment Sheet 1.

OBJECTIVE 14

Complete Assignment Sheet 2.

OBJECTIVE 15

Complete Assignment Sheet 3.

OBJECTIVE 16

Complete Assignment Sheet 4.

OBJECTIVE 17

Complete Assignment Sheet 5.



Name _____ Score _____

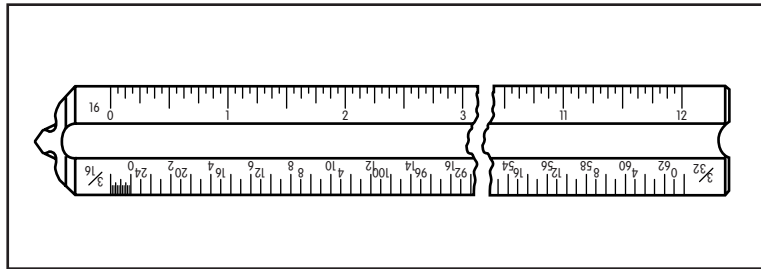
OBJECTIVE 13

Use an architect's scale.

WORDS YOU SHOULD KNOW

architect's scale three-sided rule with six ruled faces designed to measure in twelve different scales of proportional feet and inches (Figure 1)

FIGURE 1



BASIC SKILLS



Reading



Mathematics



Employability

INTRODUCTION

Cement masons need to be skilled in using an architect's scale. Learning to read an architect's scale proficiently also aids in reading plans.

EQUIPMENT
AND SUPPLIES

- Paper
- Pen or pencil

INSTRUCTIONS

Use an architect's scale to complete this Assignment Sheet. Keep in mind the following guidelines.

- Select the proper scale ratio.
- Be sure the scale is lying flat on the surface being measured.
- Double-check all measurements.
- Practice measuring from the center of one line to the center of the next line.



- Do not use the scale if the dimensions are available.

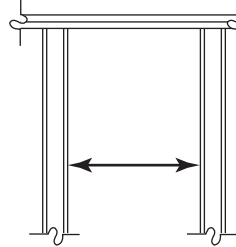
✓ **NOTE:** Accuracy may vary because of distortion due to the plan reproduction process.

Part 1

Use the architect's scale to find the following dimensions. Write your answers in the blanks.

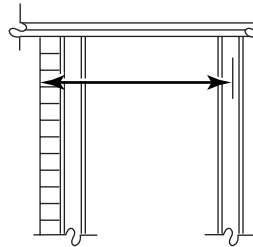
_____ 1.

Scale to $\frac{1}{16}'' = 1'-0''$



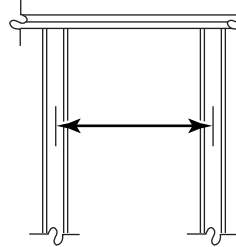
_____ 2.

Scale to $\frac{1}{8}'' = 1'-0''$



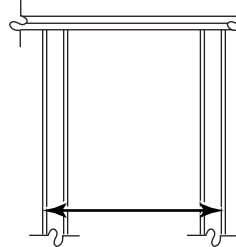
_____ 3.

Scale to $\frac{1}{4}'' = 1'-0''$



_____ 4.

Scale to $\frac{1}{2}'' = 1'-0''$



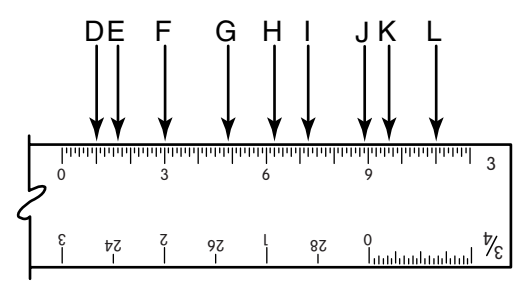
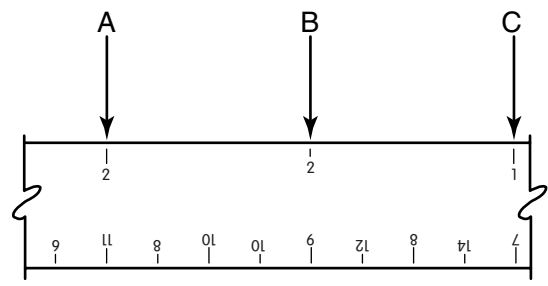
_____ 5. Scale to 1½" = 1'-0"



Part 2

Read the following scales from zero to the letter points indicated. Write the correct readings in the blanks below the scales.

1.



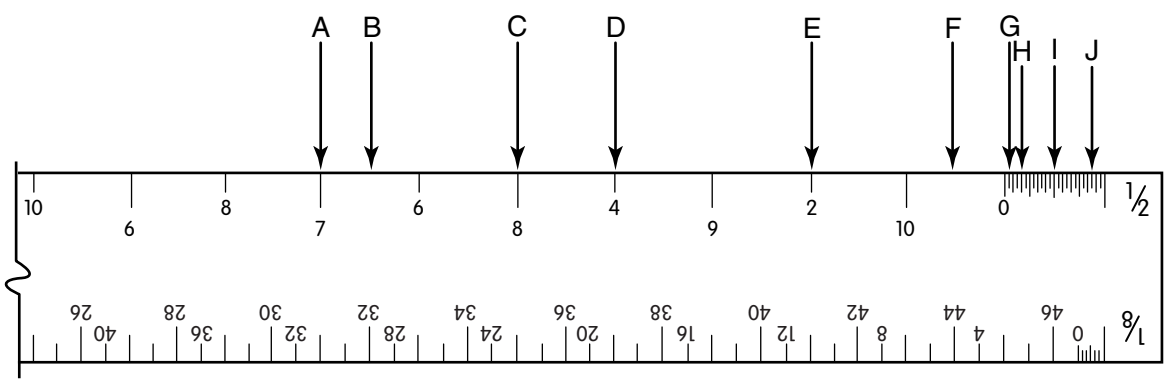
✓ **NOTE:** This illustration has been reduced.

- A. _____
- B. _____
- C. _____
- D. _____
- E. _____
- F. _____

- G. _____
- H. _____
- I. _____
- J. _____
- K. _____
- L. _____

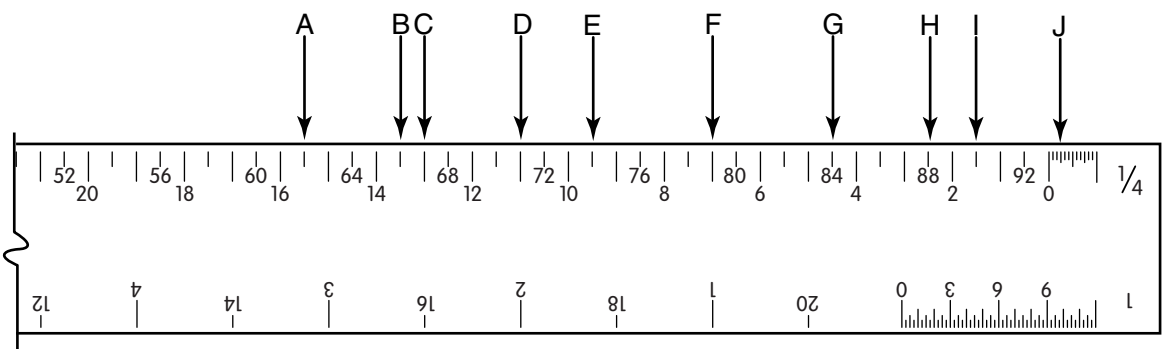


2.



- | | |
|----------|----------|
| A. _____ | F. _____ |
| B. _____ | G. _____ |
| C. _____ | H. _____ |
| D. _____ | I. _____ |
| E. _____ | J. _____ |

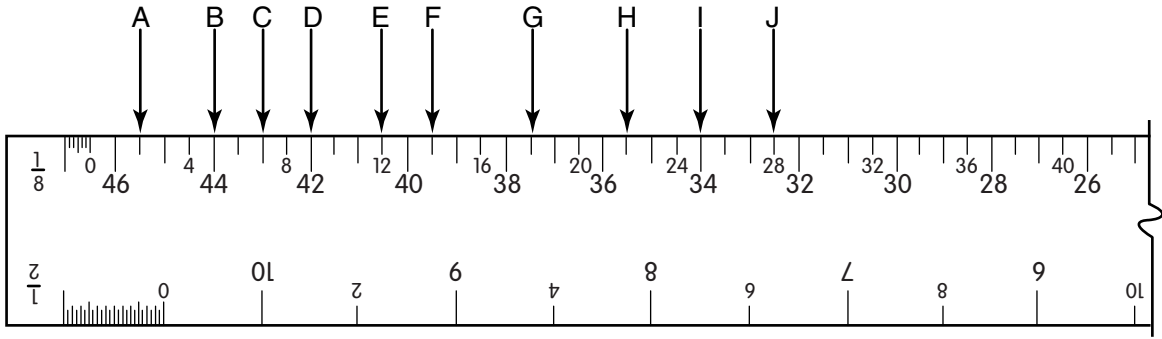
3.



- | | |
|----------|----------|
| A. _____ | F. _____ |
| B. _____ | G. _____ |
| C. _____ | H. _____ |
| D. _____ | I. _____ |
| E. _____ | J. _____ |



4.



A. _____

F. _____

B. _____

G. _____

C. _____

H. _____

D. _____

I. _____

E. _____

J. _____





Name _____ Score _____

OBJECTIVE 14

Use an engineer's scale.

BASIC SKILLS



Reading



Mathematics



Employability

INTRODUCTION

Using an engineer's scale is just as important as using an architect's scale, especially when checking dimensions on a plot plan. Learning to use and read the engineer's scale proficiently also will help you when reading plans.

**EQUIPMENT
AND SUPPLIES**

- Engineer's scale
- Pen or pencil

INSTRUCTIONS

Use an engineer's scale to complete this Assignment Sheet. Keep in mind the following guidelines.

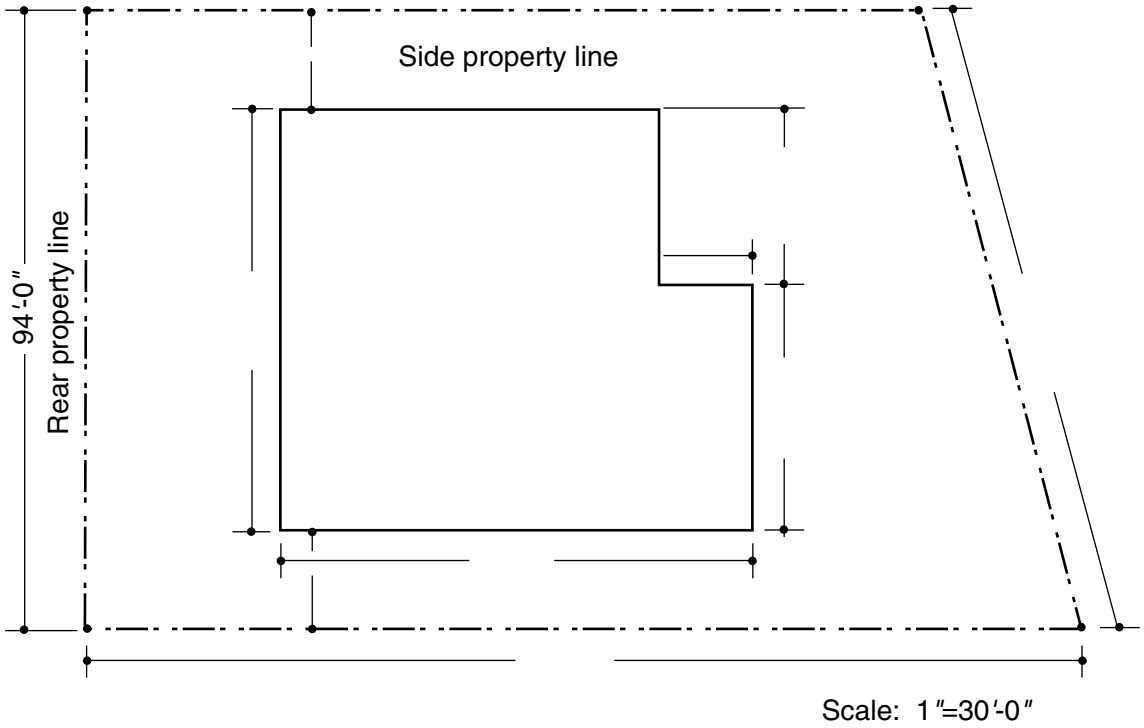
- Select the proper scale ratio.
- Be sure the scale is lying flat on the surface being measured.
- Double-check all measurements.
- Practice measuring from the center of one line to the center of the next line.
- Do not use the scale if the dimensions are available.

✓ **NOTE:** Accuracy may vary because of distortion due to the plan reproduction process.

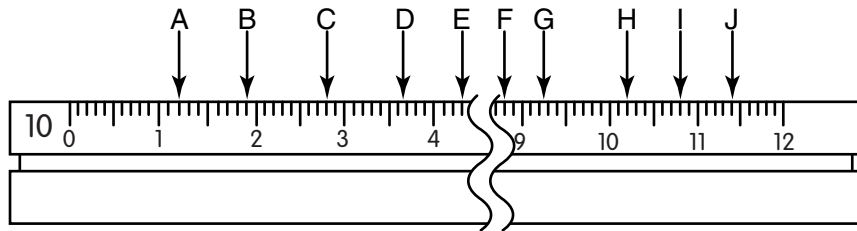


Part 1

Use an engineer's scale to find the dimensions on the plot plan below. Write your answers on each of the dimension lines.



1.

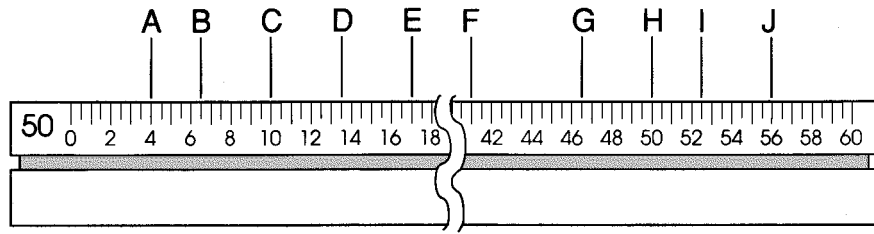


- A. _____
- B. _____
- C. _____
- D. _____
- E. _____

- F. _____
- G. _____
- H. _____
- I. _____
- J. _____



2.



A. _____

F. _____

B. _____

G. _____

C. _____

H. _____

D. _____

I. _____

E. _____

J. _____





Name _____ Score _____

OBJECTIVE 15

Read plans.

WORDS YOU SHOULD KNOW

bench mark point of known or assumed elevation used as a reference point in determining other elevations

dimensioning using conventional dimension lines and figures to indicate actual sizes and distances of objects and spaces represented

✓ **NOTE:** Dimensioning may be from outside to center, center to center, wall to wall, or outside to outside. In all cases, dimensions are given in full scale regardless of the fact that the plan shows an object or distance on a smaller scale. Section and detail views may use normal sizes in labeling.

BASIC SKILLS



Reading



Mathematics



Employability

INTRODUCTION

A cement mason learns to read plans by processing several pieces of information. They must know what each type of drawing in a set of plans contains, the meanings of the architectural terms used for each part of a building, and the abbreviations used in plans. They must visualize plans drawn to scales that are only fractional parts of full size, and must be thoroughly acquainted with all dimensioning procedures. They must also be able to recognize the many types of lines used on plans. Once you have learned these basics, you will be able to visualize. Each mark on the plan will mean something, just as the letters of the alphabet mean something when you are reading this paragraph.

EQUIPMENT
AND SUPPLIES

- Pen or pencil



INSTRUCTIONS

This Assignment Sheet is designed to help you become more familiar with the different drawings in a set of plans. It should also give you an idea of what to look for when reading plans, and should provide practice for learning the fundamentals of plan reading. Refer to the set of plans in this Assignment Sheet to answer the following questions. Remember that you may have to refer to detail and section drawings to answer all questions about a plan.

Plot plan

- _____ 1. What are the overall outside dimensions of the building?
- _____ 2. What is the elevation of the bench mark?
- _____ 3. In what compass direction is the long dimension of the lot?
- _____ 4. In what direction does the residence face?
- _____ 5. How far is the residence from the east property line?
- _____ 6. On what two sides of the property is the split-rail fence?
- _____ 7. How far is the northeast corner of the residence from the north property line?
- _____ 8. How far is the southwest corner of the residence from the south property line?
- _____ 9. What is the finish floor elevation?
- _____ 10. What is the scale of this drawing?

Foundation plan

- _____ 1. How thick is the concrete slab in the garage?
- _____ 2. What size and type of reinforcing are used in the building slab?
- _____ 3. How wide is the footing on the building?
- _____ 4. How wide are the stem walls?
- _____ 5. What is the drop from finish grade to the porch slab?



- _____ 6. What is the thickness of the sheathing?
- _____ 7. How many reinforcing rods are used in the exterior footings?
- _____ 8. What is the radius of the garage floor at the door edge?
- _____ 9. What size anchor bolts are to be used throughout?
- _____ 10. How much is the garage floor sloped from the inside wall out?
- _____ 11. What type of insulation is used for the vapor barrier?
- _____ 12. In which detail are the stem wall and the floor poured monolithic?
- _____ 13. What is the depth of the fireplace footing?
- _____ 14. On which details do you find expansion joints?
- _____ 15. What material is used as fill beneath the concrete slab?

Floor plan

- _____ 1. What is the size of bedroom #2?
- _____ 2. What is the height of the fireplace hearth?
- _____ 3. How many different types of windows are used in the residence?
- _____ 4. What are the dimensions of the living room?
- _____ 5. What is the size of the main entry door?
- _____ 6. How many square feet of living space will there be?
- _____ 7. What are the dimensions of the master bedroom?
- _____ 8. What is the thickness of the exterior wall?
- _____ 9. What is the swing of the main entry door?
- _____ 10. What is the size of the closet in the master bedroom?



- _____ 11. How many bathrooms does the residence contain?
- _____ 12. Where are the washer and dryer to be located?
- _____ 13. Where is the water heater to be located?
- _____ 14. How many hose bibs are there, and where are they located?
- _____ 15. What size doors are used on the closets in bedrooms #2 and #3?
- _____ 16. What type of door is used between the kitchen and hallway?
- _____ 17. What is the size of the patio?
- _____ 18. What size is the furnace room?
- _____ 19. What are the dimensions of the planter?
- _____ 20. What does the number symbol 2668 mean?
- _____ 21. What is the radius of the curved edges on the patio?
- _____ 22. What do the circled letters mean?
- _____ 23. What type of door is used between the kitchen and utility room?
- _____ 24. What is the width of the living room?
- _____ 25. On what wall (compass direction) will the range be located?
- _____ 26. What type of sink will be installed in the kitchen?
- _____ 27. How many windows face north?
- _____ 28. How many windows face west?
- _____ 29. Of what material is the planter made?
- _____ 30. How many exterior doors are there?
- _____ 31. What is the depth of the garage cabinets?
- _____ 32. What is the swing of the cabinet doors over the washer and dryer?

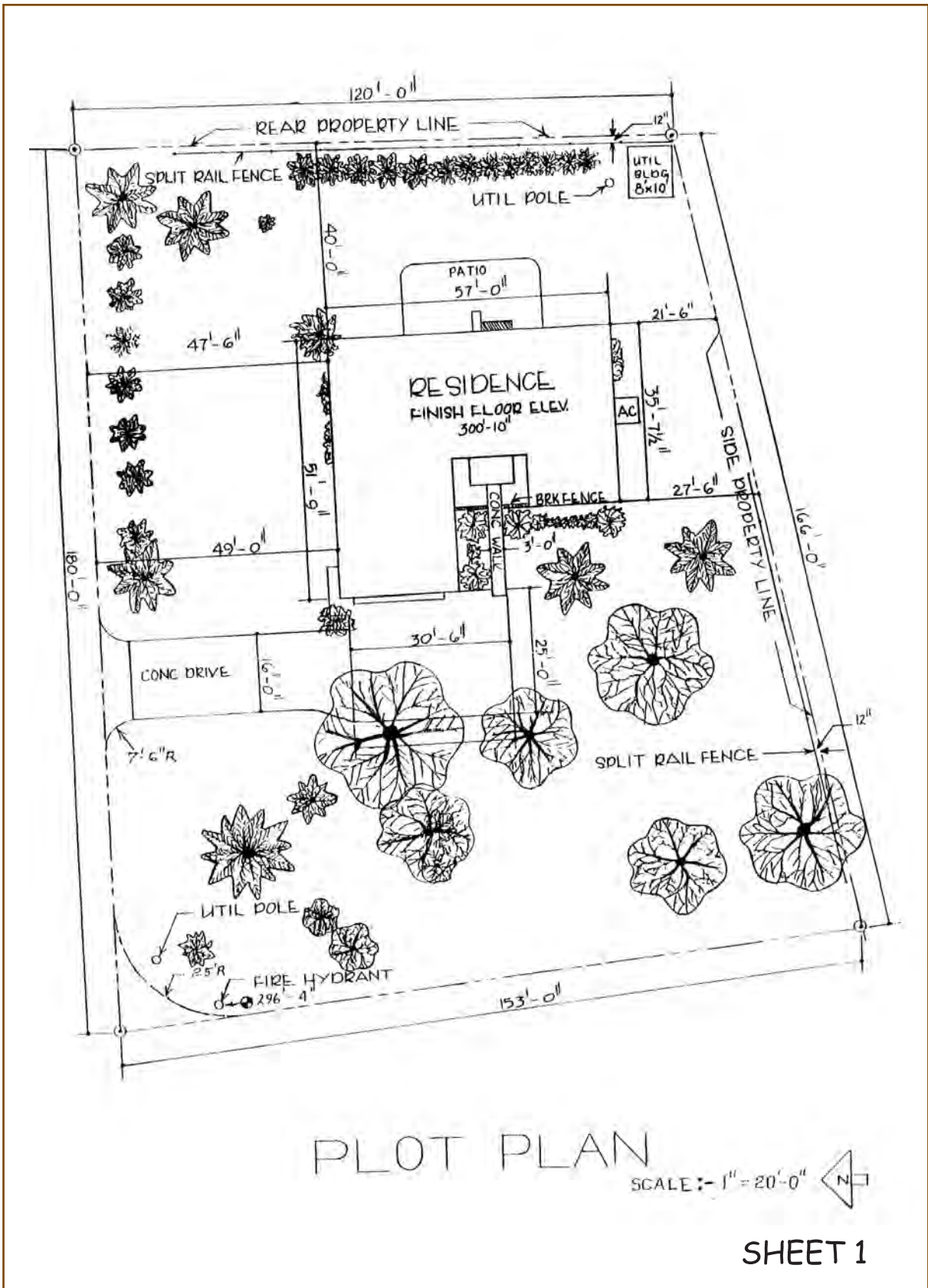


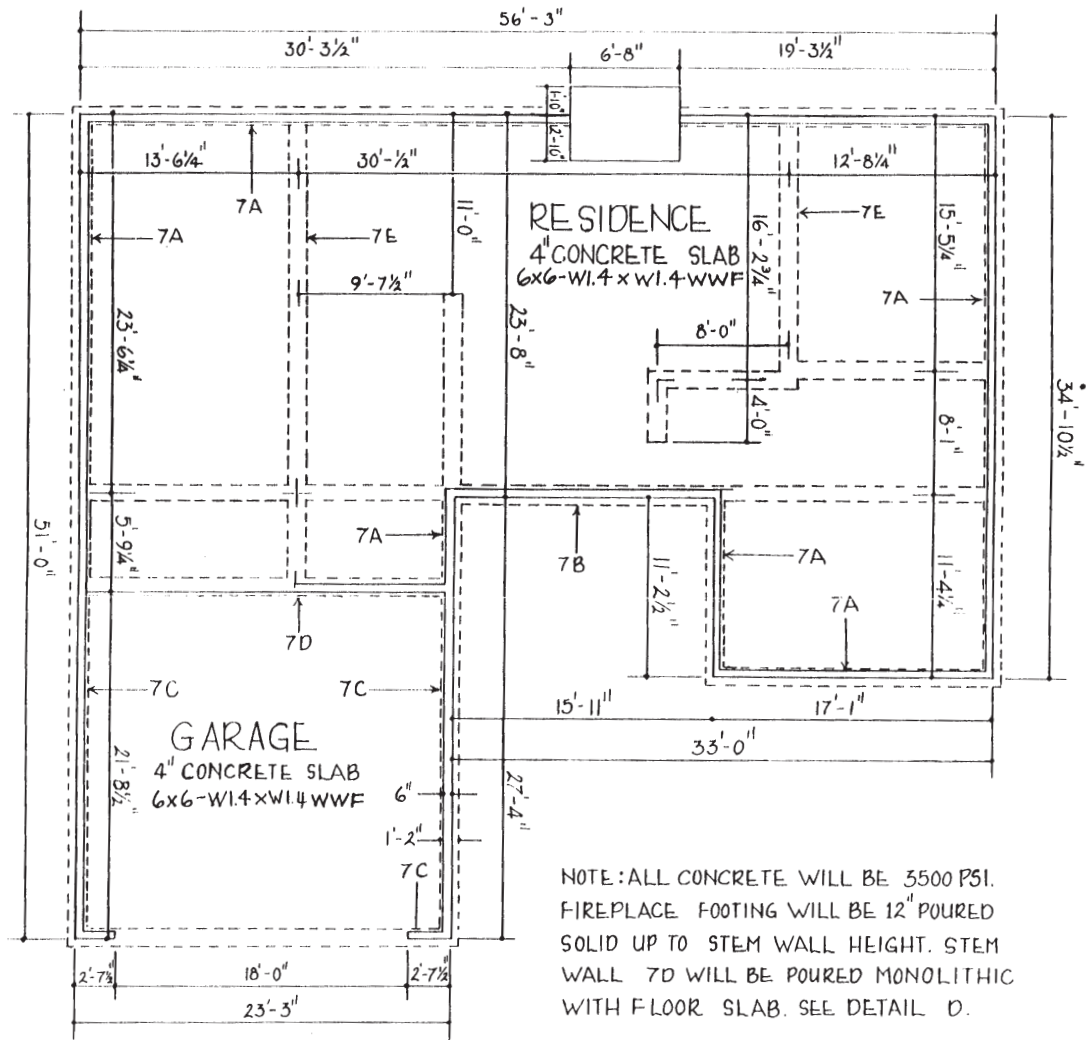
- _____ 33. How many shelves will the bookcase contain?
- _____ 34. How deep is the counter overhang on the vanities in the baths?
- _____ 35. Does the kitchen sink contain a garbage disposal?
- _____ 36. Of what material is the fireplace mantel made?

Elevations

- _____ 1. What is the top height of the windows and doors?
- _____ 2. How deep is the cornice overhang?
- _____ 3. How many downspouts will be installed?
- _____ 4. What size and type of bricks are used on the building?
- _____ 5. What is the roof pitch?
- _____ 6. What is the ceiling height of the garage?
- _____ 7. What are the size and spacing of the rafters?
- _____ 8. What type of 2x4s are used for the bottom plates?
- _____ 9. What are the size and spacing of the ceiling joists?
- _____ 10. What type of sheathing will be used on the roof?







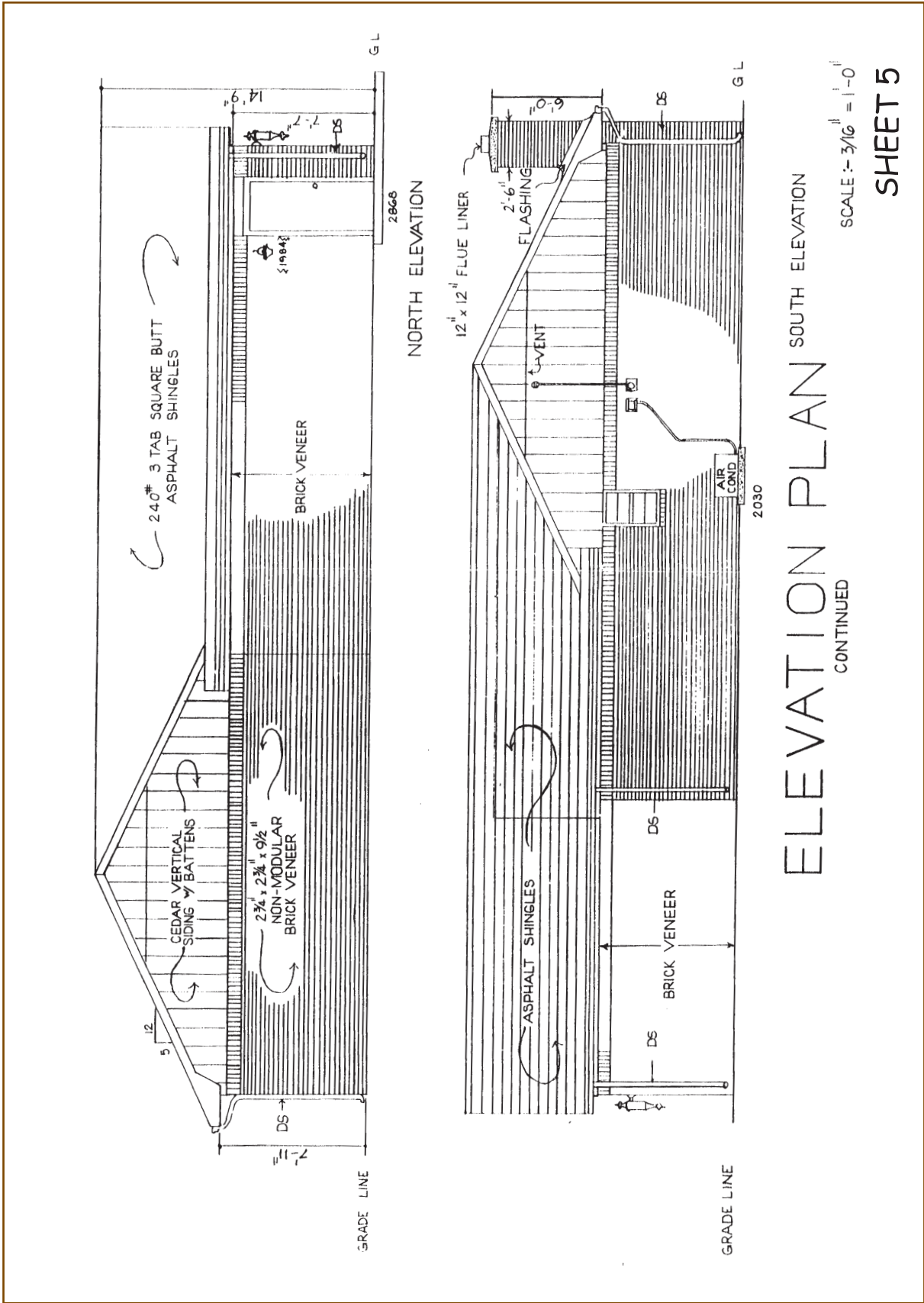
FOUNDATION PLAN

SCALE :- $\frac{1}{8}" = 1'-0"$



SHEET 2

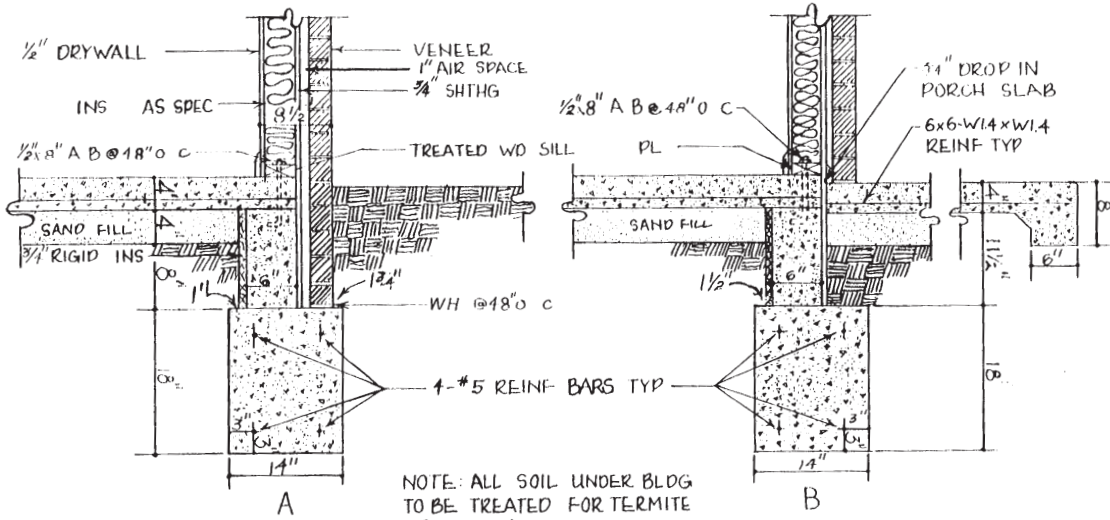




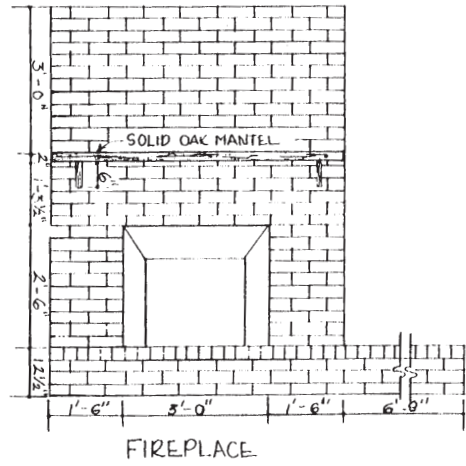
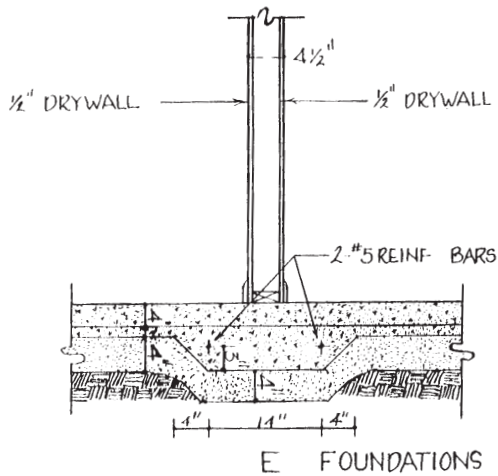
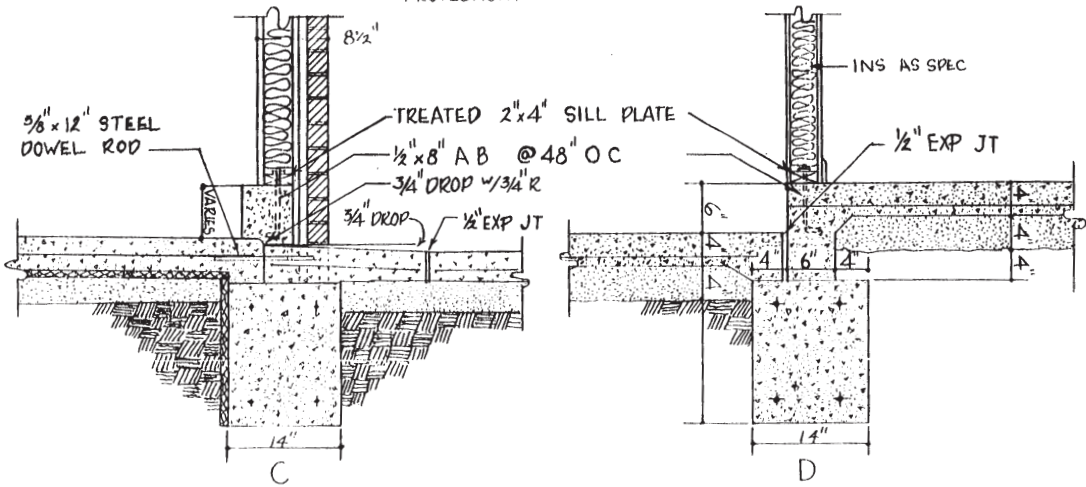
ELEVATION PLAN SOUTH ELEVATION
CONTINUED

SCALE :- 3/16" = 1'-0"
SHEET 5





NOTE: ALL SOIL UNDER BLDG TO BE TREATED FOR TERMITE PROTECTION.



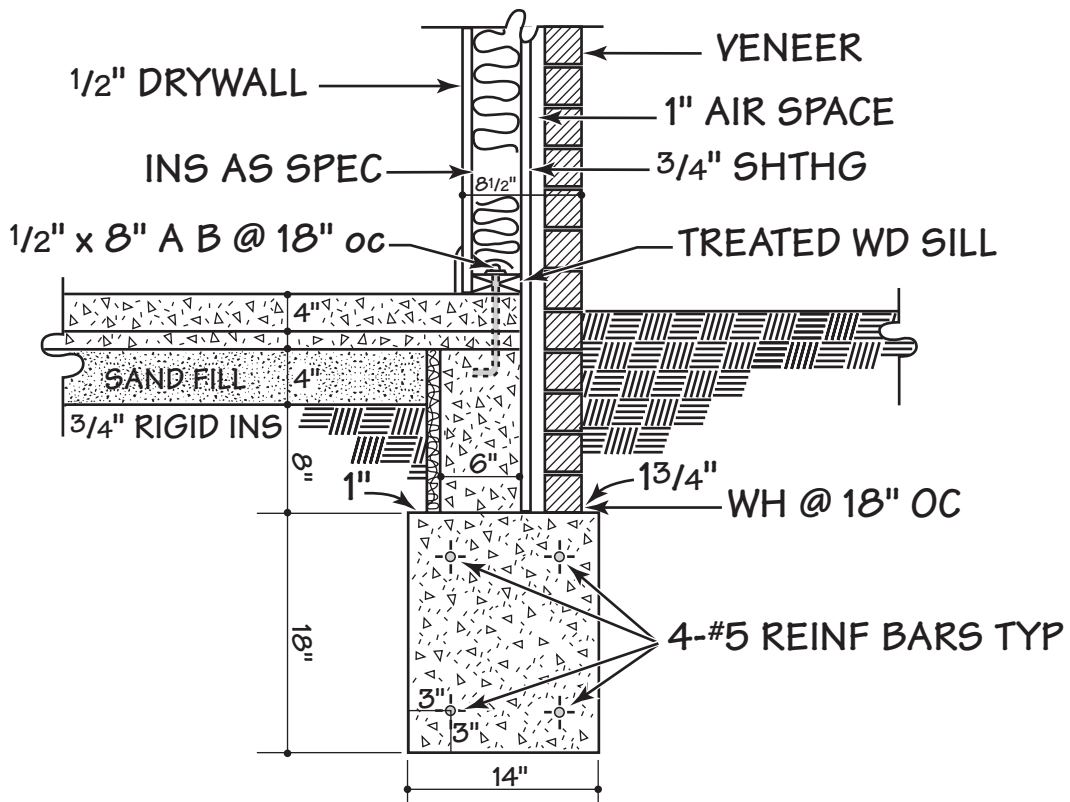
SCALE: 3/4" = 1'-0"

SCALE: 3/8" = 1'-0"

DETAILS

SHEET 7



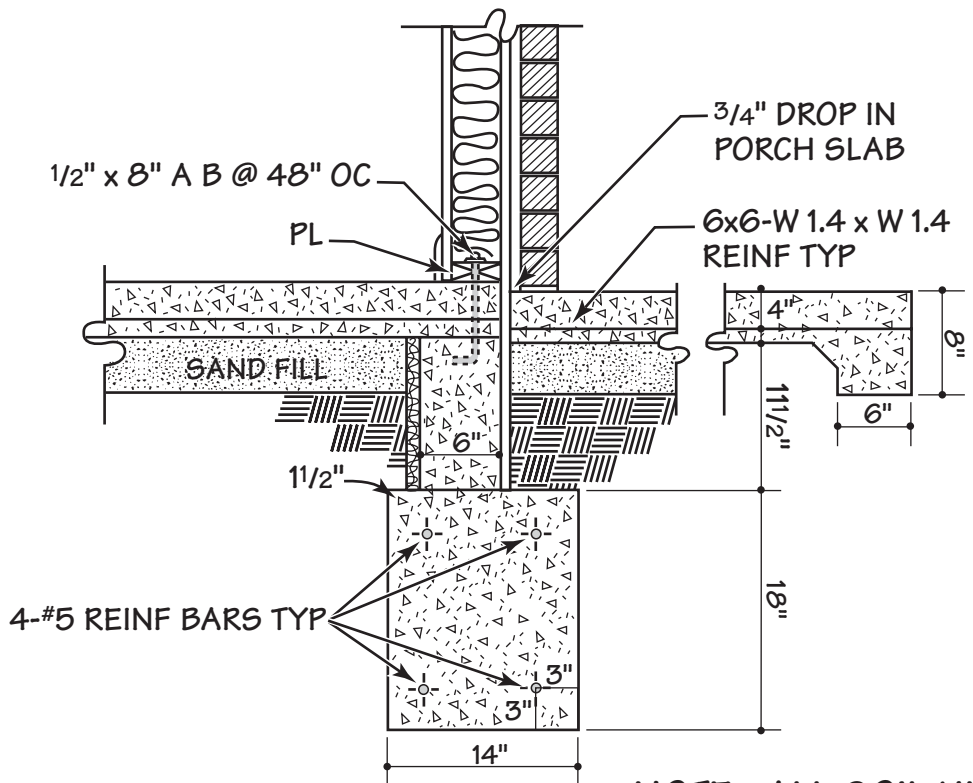


SCALE: $\frac{3}{8}'' = 1'-0''$

NOTE: ALL SOIL UNDER BLDG TO BE TREATED FOR TERMITE PROTECTION.

SHEET 7A





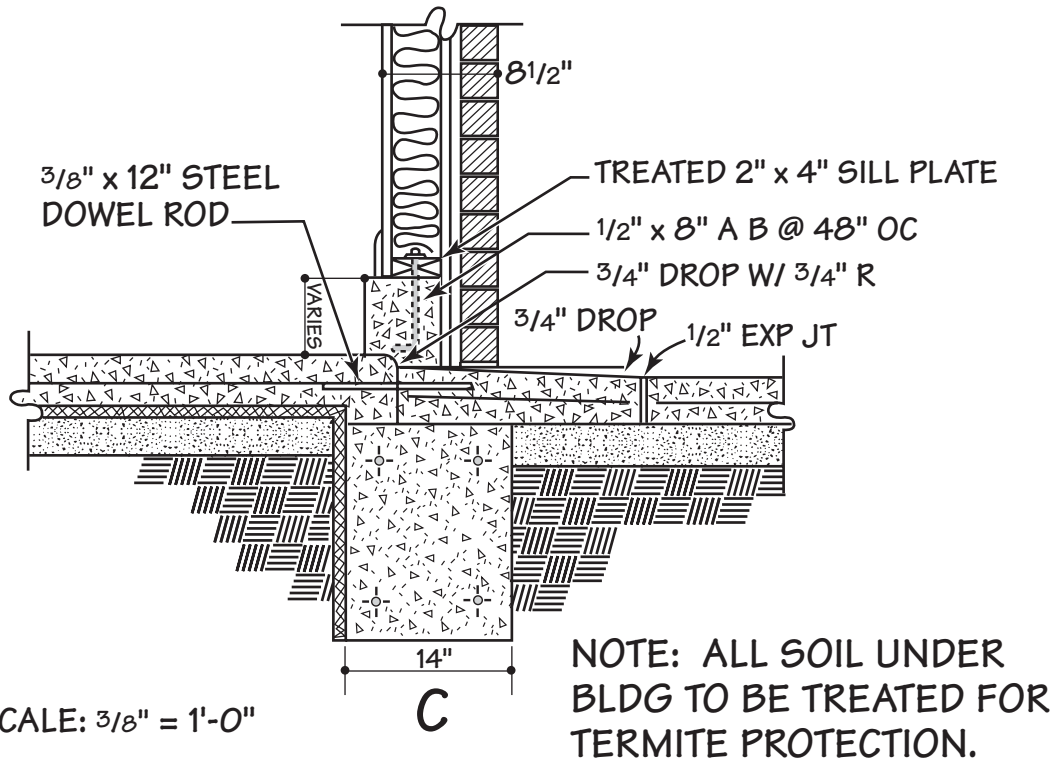
SCALE: $\frac{3}{8}'' = 1'-0''$

B

NOTE: ALL SOIL UNDER BLDG TO BE TREATED FOR TERMITE PROTECTION.

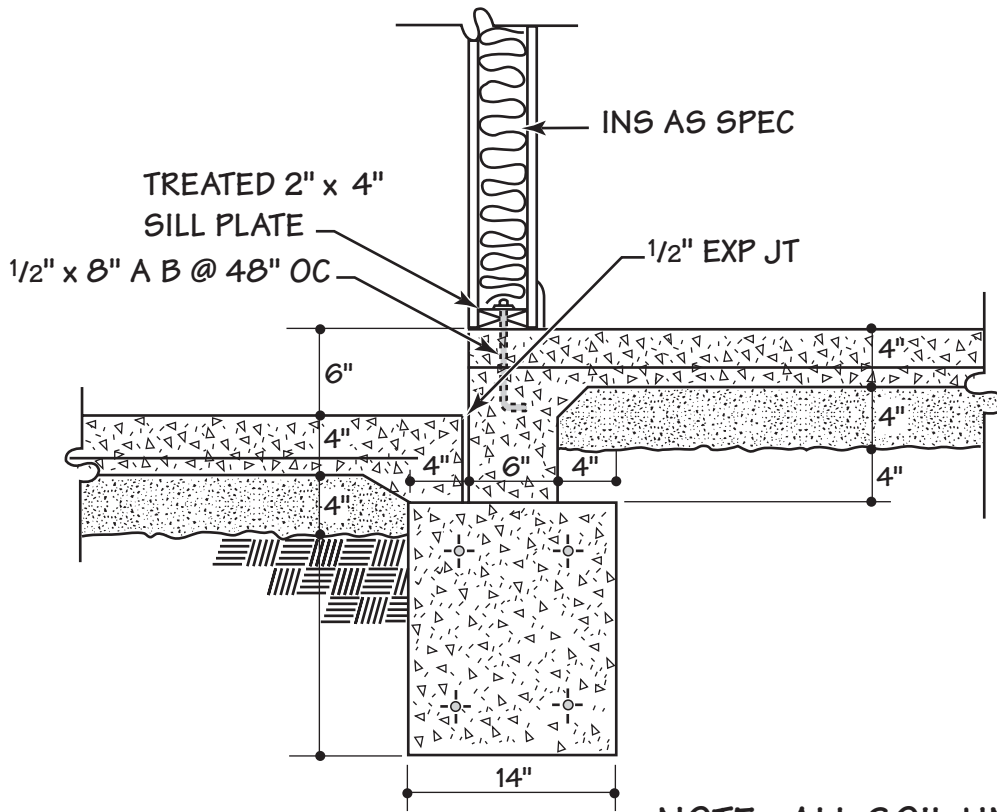
SHEET 7B





SHEET 7C





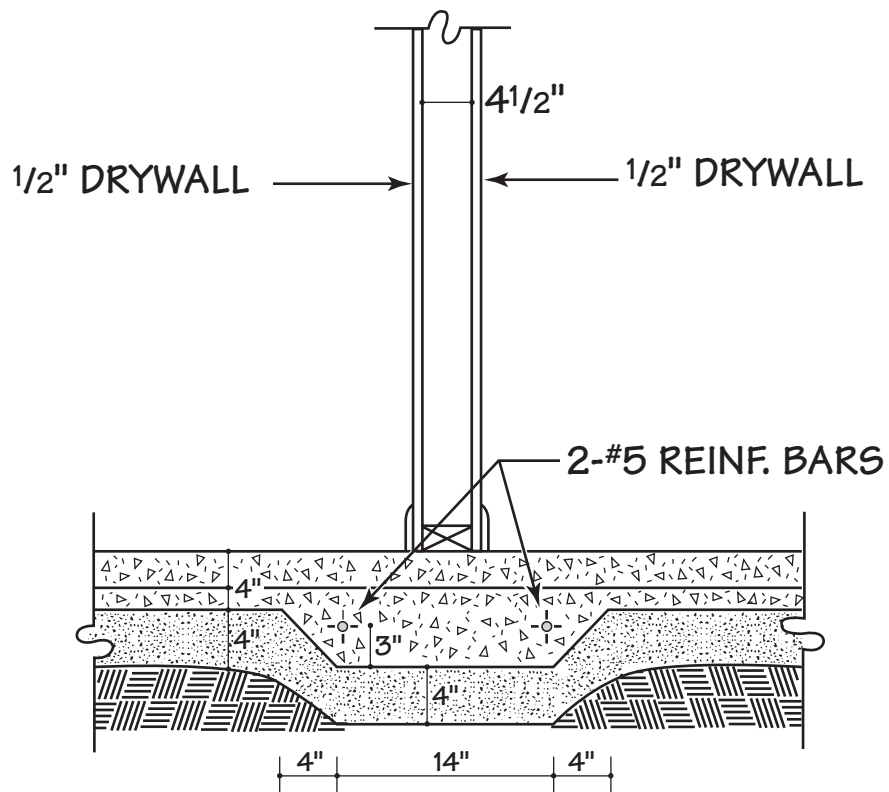
SCALE: $\frac{3}{8}'' = 1'-0''$

D

NOTE: ALL SOIL UNDER BLDG TO BE TREATED FOR TERMITE PROTECTION.

SHEET 7D





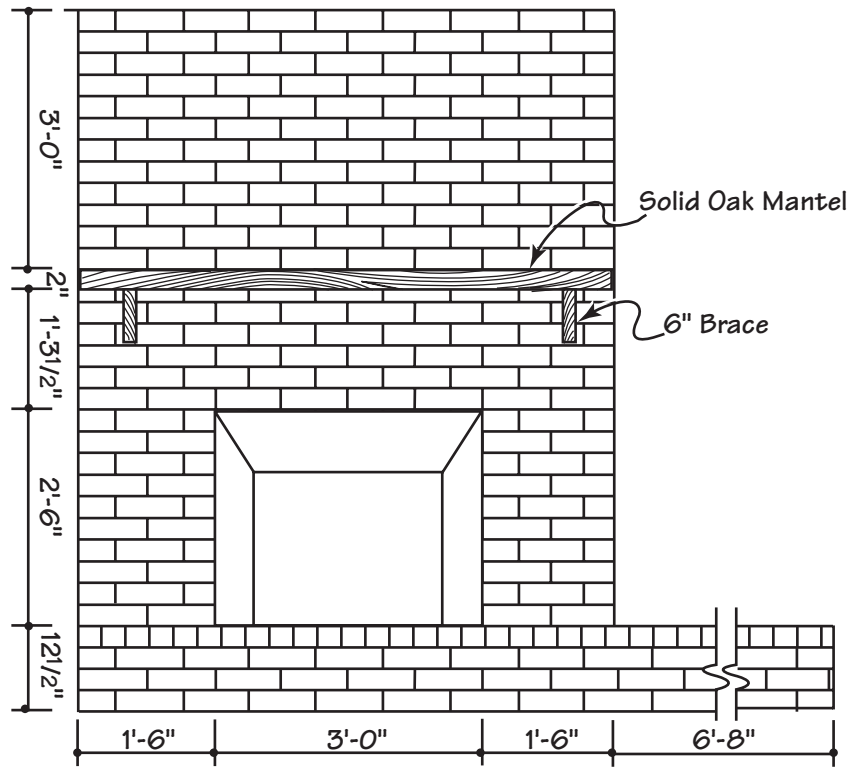
SCALE: $\frac{3}{8}$ " = 1'-0"

E FOUNDATIONS

NOTE: ALL SOIL UNDER BLDG TO BE TREATED FOR TERMITE PROTECTION.

SHEET 7E





FIREPLACE

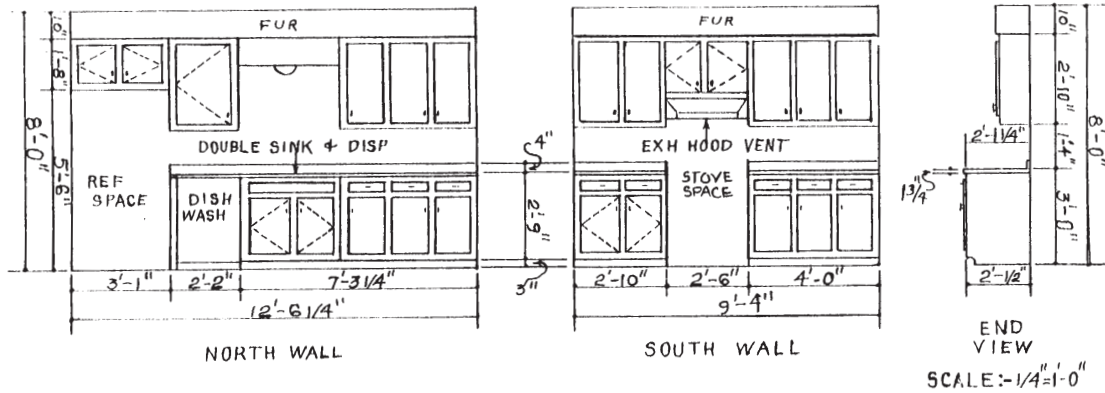
SCALE: $\frac{3}{8}" = 1'-0"$

NOTE: ALL SOIL UNDER
BLDG TO BE TREATED FOR
TERMITE PROTECTION.

SHEET 7F

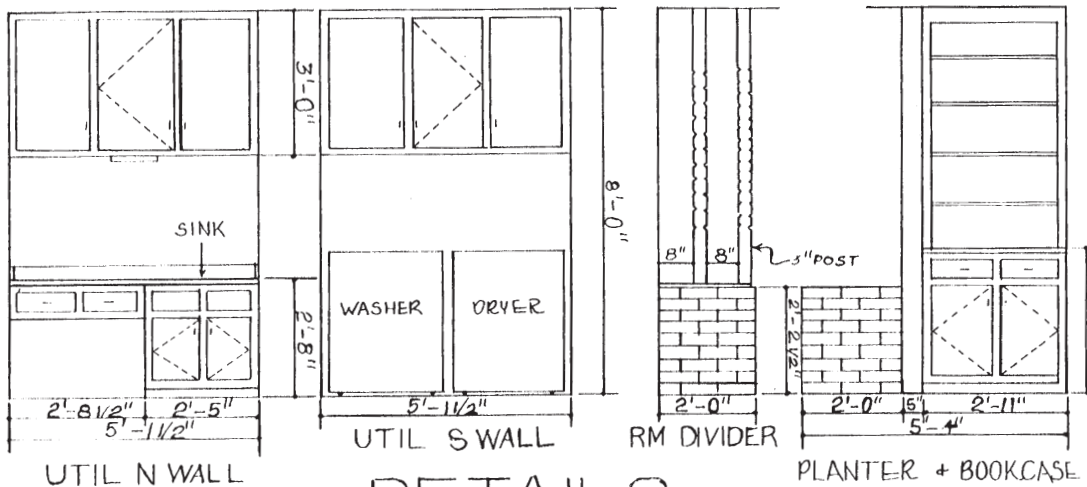
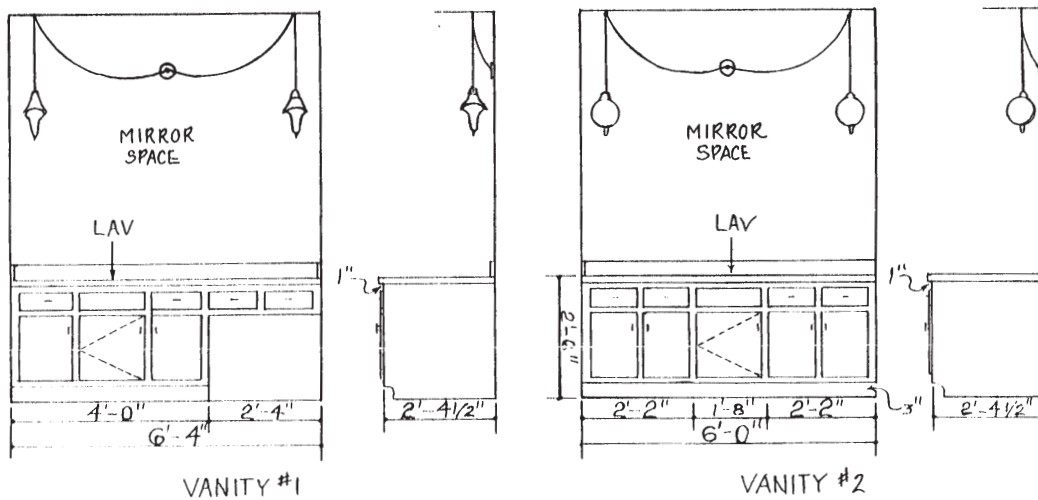


KITCHEN CABINETS



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

BATHROOMS

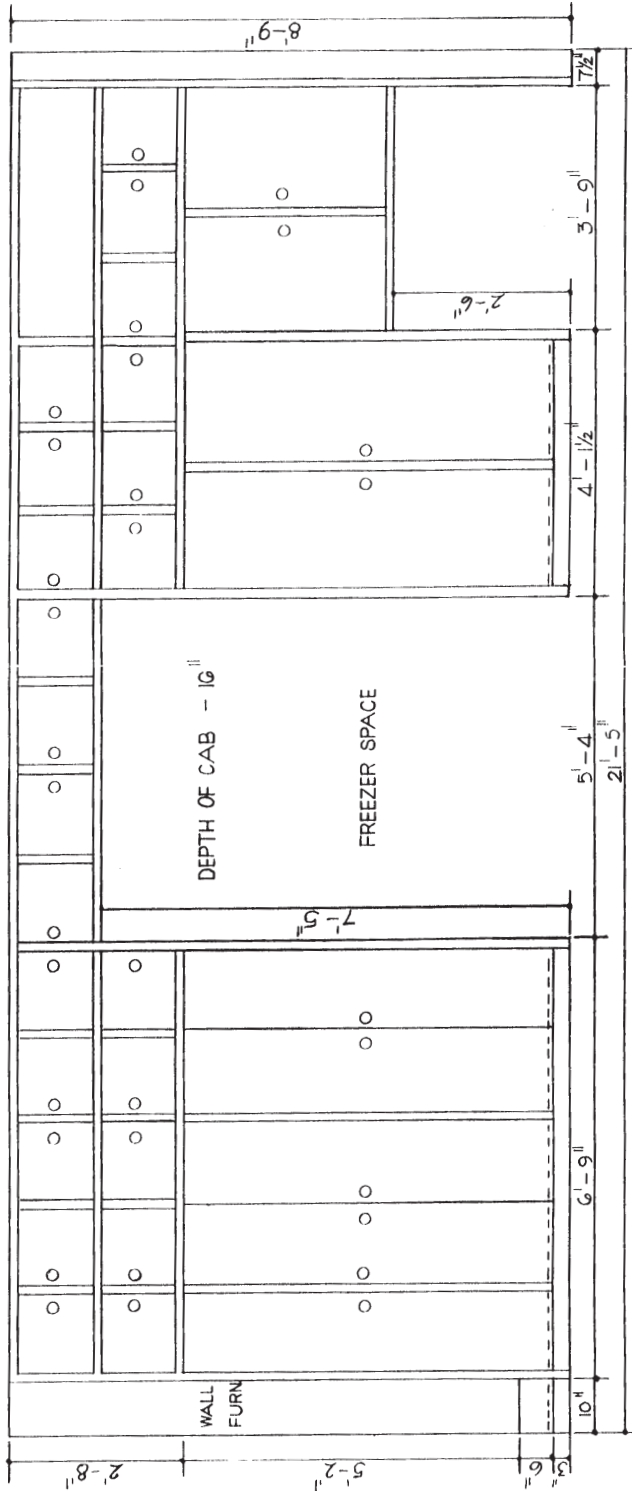


DETAILS

SCALE: -3/8"=1'-0"

SHEET 8





GARAGE CABINETS

DETAILS

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

SHEET 9



Name _____ Score _____

OBJECTIVE 16

Interpret a finish schedule.

WORDS YOU SHOULD KNOW

finish schedule listing or chart or parts (keyed to the plans), amounts, materials or products, and details

✓ **NOTE:** Schedules may appear on same page as a plan or on a separate page in the set of plans. Schedules may be listed for windows, doors, room finishes, floor types and finishes, paint, appliances, fixtures, lintels, headers, and reinforcing steel.

BASIC SKILLS



Reading



Employability

INTRODUCTION

Learning to read a finish schedule as keyed to the plans is an important part of plan reading. The finish schedules provided in this Assignment Sheet provide listings of all opening sizes, types of materials used, walls to be painted and types of paint to use, types of finish floors, and sizes of headers to be used over openings.

EQUIPMENT AND SUPPLIES

- Pen or pencil

INSTRUCTIONS

Refer to the finish schedule included in this Assignment Sheet to answer the following questions.

- _____ 1. What is the size of the entry door?
- _____ 2. What type of door and material are to be used for the main entry?
- _____ 3. What type of threshold is used for the 3668 door?



- _____ 4. What type of material is used in the fireproof door?
- _____ 5. What type of doors are used in bedrooms #2 and #3?
- _____ 6. How many hollow-core doors will be used?
- _____ 7. How many different types of doors will be used?
- _____ 8. What is the size of the window on the south side of the residence?
- _____ 9. What type of window is the east window marked B?
- _____ 10. Which rooms will be painted with light-blue gloss enamel?
- _____ 11. How many rooms will be painted with off-white flat latex?
- _____ 12. What type of floor is used in the entry?
- _____ 13. Which rooms have carpeting on the floors?
- _____ 14. What type of base is to be used in the bedrooms?
- _____ 15. With what are the walls in the dining area finished?



FINISH SCHEDULES ROOM FINISHES

ROOMS	FLOOR			CEILING			WALL			BASE			TRIM			REMARKS			
	CARPET	CERAMIC TILE	RUBBER TILE	CONCRETE	ACOUSTIC TEXT	DRYWALL	PAINT	CERAMIC TILE	DRYWALL	PAINT	WALLPAPER	CERAMIC TILE	WOOD	RUBBER	CERAMIC TILE		STAIN	WOOD	STAIN
ENTRY		✓			✓			✓	✓	✓		✓			✓	✓	✓		See owner for all painting
HALL	✓				✓			✓	✓			✓			✓	✓	✓		
BEDROOM 1	✓				✓			✓	✓	✓		✓			✓	✓	✓		See owner for grade of carpet
BEDROOM 2	✓				✓			✓	✓			✓			✓	✓	✓		See owner for grade of carpet
BEDROOM 3	✓				✓			✓	✓			✓			✓	✓	✓		See owner for grade of carpet
BATH 1	✓	✓			✓		✓	✓	✓	✓	✓	✓			✓	✓	✓		Wallpaper three walls around vanity
BATH 2		✓			✓		✓	✓	✓	✓	✓	✓			✓	✓	✓		Water-seal tile Wallpaper w. wall
UTIL. & CLOSETS	✓	✓			✓	✓		✓	✓			✓			✓	✓	✓		Use off-white flat/latex
KITCHEN			✓		✓			✓	✓			✓							
DINING	✓				✓			✓	✓	✓		✓			✓	✓	✓		
LIVING	✓				✓			✓	✓			✓			✓	✓	✓		See owner for carpet
GARAGE			✓		✓	✓						✓	✓						

DOOR SCHEDULE

DOOR	WIDTH	HEIGHT	THICKNESS	MATERIAL	TYPE	STORM DOOR	QUANTITY	THRESHOLD	REMARKS	MANUFACTURER
206B	2'-0"	6'-8"	1 ³ / ₈ "	Wood-Ash	Hollow-core	No	5	None	oil stain	L.B.J. Door, Inc.
246B	2'-4"	6'-8"	1 ³ / ₈ "	Wood-Ash	Hollow-core	No	1	None	oil stain	L.B.J. Door, Inc.
266B	2'-6"	6'-8"	1"	Wood-Ash	Cafe	No	1 pr.	None	oil stain	L.B.J. Door, Inc.
266B	2'-6"	6'-8"	1 ³ / ₈ "	Wood-Ash	Sliding-pocket	No	1	None	oil stain	L.B.J. Door, Inc.
266B	2'-6"	6'-8"	1 ³ / ₈ "	Wood-Ash	Hollow-core	1 screen	5	Alum.	Screen door in garage	L.B.J. Door, Inc.
286B	2'-8"	6'-8"	1 ³ / ₄ "	Metal Clad	Fireproof	Yes	1	Alum.	Paint	L.B.J. Door, Inc.
306B	3'-0"	6'-8"	1 ³ / ₄ "	Wood-Ash	Solid-core	No	1	None	oil stain	L.B.J. Door, Inc.
366B	3'-6"	6'-8"	1 ³ / ₄ "	Wood-Ash	Solid-core	Yes	1	Alum.	Marine varnish	L.B.J. Door, Inc.
6066	6'-0"	6'-8"	1/2"	Glass&Metal	Sliding	Yes	1 pr.	Alum.	Sliding Screen	L.B.J. Door, Inc.
606B	6'-0"	6'-8"	1 ¹ / ₄ "	Wood-Ash	Bi-fold	No	2 sets	None	oil stain	L.B.J. Door, Inc.
1956	1'-9"	5'-6"	1/2"	Glass&Metal	Sliding shower door	No	2 sets	None	Frosted glass	L.B.J. Door, Inc.

WINDOW SCHEDULE

SYMBOL	WIDTH	HEIGHT	MATERIAL	TYPE	SCREEN & STORM	QUANTITY	REMARKS	MANUFACTURER	CATALOG NUMBER
A	3'-8"	3'-0"	Aluminum	Double hung	Yes	2	4 lights 4 high	L.B.J. Window Co.	141 PW
B	3'-8"	5'-0"	Aluminum	Double hung	Yes	1	4 lights 4 high	L.B.J. Window Co.	145 PW
C	3'-0"	5'-0"	Aluminum	Stationary	Storm only	2	Single lights	L.B.J. Glass Co.	59 PY
D	2'-0"	3'-0"	Aluminum	Double hung	Yes	1	4 lights 4 high	L.B.J. Window Co.	142 PW
E	2'-0"	6'-0"	Aluminum	Stationary	Storm only	2	20 lights	L.B.J. Glass Co.	37 TS
F	3'-6"	5'-0"	Aluminum	Double hung	Yes	1	16 lights 4 high	L.B.J. Window Co.	141 PW

HEADER SCHEDULE

HEADER SIZE	EXTERIOR		INTERIOR	
	26'+under	26' to 32'	26'+under	26' to 32'
2 - 2 x 4	3'-6"	3'-0"	Use 2 - 2 x 6	
2 - 2 x 6	6'-6"	6'-0"	4'-0"	3'-0"
2 - 2 x 8	8'-6"	8'-0"	5'-6"	5'-0"
2 - 2 x 10	11'-0"	10'-0"	7'-0"	6'-6"
2 - 2 x 12	13'-6"	12'-0"	8'-6"	8'-0"

SCHEDULES

SHEET 10





Name _____ Score _____

OBJECTIVE 17

Read written specifications.

BASIC SKILLS



Reading



Employability

INTRODUCTION

Both specifications and plans may indicate information about the same items. The symbols and notes appearing on an elevation or plan view, for example, may completely describe a certain aspect of construction. In that event, the written specifications need not repeat the same information. When, however, symbols and notes do not contain complete information, then specifications must include whatever additional information may be required. For example, section and detail views may indicate that subflooring is required. That is not enough information. The specifications would have to show the size of the boards to use, the type of boards to use, how the boards are to be mill-finished, and how nailed. Therefore, when you study plans and specifications, you must pay careful attention to what is shown on the plans, as well as to what is set forth in the specifications. A good cement mason cannot possibly obtain a full understanding of all requirements until he or she is thoroughly familiar with both plans and written specifications.

**EQUIPMENT
AND SUPPLIES**

- Pen or pencil

INSTRUCTIONS

Use the set of written specifications in this Assignment Sheet to answer the following questions. Do not use abbreviations in your answers.

1. What restriction is applied to the general type of paint that may be used?

2. Foundation

- A. Under what conditions must concrete piers be installed?



B. What type of reinforcing is to be used in the foundation?

C. Of what material are the foundation sills to be made?

D. How is the foundation to be waterproofed?

E. With what is the soil to be treated to protect against termites?

3. Chimneys and fireplaces

A. What is the size of the fireplace flue?

B. What type of flue-liner material is to be used?

C. What material is to be used in the fireplace hearth?

D. List additional information given for the fireplace specifications.

4. Floors and exterior walls

A. What type of wood grade and species are to be used on the house frame?

B. What size and type sheathing material will be used on the exterior walls?

C. What type of veneer is to be applied to the exterior walls?

D. What materials may be used in the gable wall construction?



E. How many square units of subflooring are to be installed in the attic?

5. Partition framing, ceiling framing, and roof

A. What are the size and spacing of the partition studs?

B. What is the distance between rafter centers in the roof framing?

C. What type and grade of roofing material will be used?

D. What flashing material will be used?

E. Is the guttering to be connected to the storm sewer? Explain.

6. Entrances, cabinets, and interior detail

A. What materials are to be used for entrance doors other than the main door?

B. What type of threshold material is to be used in the main entry?

C. How high is the wainscoting in the bathroom?

7. Plumbing, heating, lighting, and insulation

A. Will the shower have a curtain or a door?

B. What capacity water heater is to be installed?



C. Will the water heater be gas or electric?

D. Where will the heating vents be located?

E. Will there be a ceiling heater in the bathroom?

F. What is to be the finish on the faucets and accessories in the bathroom?



Proposed Construction **DESCRIPTION OF MATERIALS** No. _____
(To be inserted by FHA or VA)

Under Construction

Plan # _____
Property address _____ City _____ State Oklahoma

Mortgagor or Sponsor _____ (Name) _____ (Address)

Contractor or Builder _____ (Name) _____ (Address)

INSTRUCTIONS

- For additional information on how this form is to be submitted, number of copies, etc., see the instructions applicable to the FHA Application for Mortgage Insurance or VA Request for Determination of Reasonable Value, as the case may be.
- Describe all materials and equipment to be used, whether or not shown on the drawings, by marking an X in each appropriate check-box and entering the information called for in each space. If space is inadequate, enter "See misc." and describe under item 27 or on an attached sheet. **THE USE OF PAINT CONTAINING MORE THAN ONE HALF OF ONE PERCENT LEAD BY WEIGHT IS PROHIBITED.**
- Work not specifically described or shown will not be considered unless required, then the minimum acceptable will be assumed. Work exceeding minimum requirements cannot be considered unless specifically described.
- Include no alternates, "or equal" phrases, or contradictory items. (Consideration of a request for acceptance of substitute materials or equipment is not thereby precluded.)
- Include signatures required at the end of this form.
- The construction shall be completed in compliance with the related drawings and specifications, as amended during processing. The specifications include this Description of Materials and the applicable Minimum Property Standards.

1. EXCAVATION:
Bearing soil, type Firm clay; Note: Where fill is in excess of 18", concrete piers to be installed at 8' oc and the cost will be added to the contract.

2. FOUNDATIONS:
Footings: concrete mix transite 14"x18" ft. length psi 2500 PSI Reinforcing (4) 5/8" steel rebar concrete
Foundation wall: material 2500 PSI concrete Reinforcing 2500 PSI concrete
Interior foundation wall: material 2500 PSI concrete Party foundation wall 2500 PSI concrete
Columns: material and sizes _____ Piers: material and reinforcing _____
Girders: material and sizes _____ Sills: material west coast utility Douglas fir with
Basement entrance areaway _____ Window areaways sill sealer
Waterproofing waterproof mix in concrete Footing drains open mortar joints
Termite protection pretreat soil and stem wall with Chlordane and issue 5 year warranty.
Basementless space: ground cover _____; insulation _____; foundation vents _____
Special foundations thicken slab beam with 2- 5/8" steel rebars to undisturbed soil.
Additional information: see patio details, also porch and fireplace footing.

3. CHIMNEYS:
Material brick Prefabricated (make and size) _____
Flue lining: material terra cotta Heater flue size 6" metalbestos Fireplace flue size 12"x12"
Vents (material and size): gas or oil heater _____; water heater metalbestos
Additional information: _____

4. FIREPLACES:
Type: solid fuel; gas-burning; circulator (make and size) 42" vestal damper Ash dump and clean-out metal
Fireplace: facing brick; lining firebrick; hearth brick; mantel wood
Additional information: note: fireplace stubbed and keyed for gas outlet.

5. EXTERIOR WALLS: 2 x 4 studs @ 16" oc 1/2" plywood at corners.
Wood frame: wood grade, and species w.c. utility d.f. Corner bracing. Building paper or felt 15# felt
Sheathing flintcoat polyurethane 3/4"; thickness 3/4"; width 24"; solid; spaced _____ " o. c.; diagonal: _____
Siding _____; grade _____; type _____; size _____; exposure _____; fastening _____
Shingles _____; grade _____; type _____; size _____; exposure _____; fastening _____
Stucco _____; thickness _____; Lath _____; weight _____ lb.
Masonry veneer face brick Sills: brick Lintels steel supporting brick Base flashing _____
Masonry: solid faced stuccoed; total wall thickness _____"; facing thickness _____"; facing material _____
Backup material _____; thickness _____"; bonding _____
Door sills _____ Window sills _____ Lintels _____ Base flashing _____
Interior surfaces: dampproofing _____ coats of _____; furring _____
Additional information: two coats of exterior paint or stain as selected by owner.
Exterior painting: material _____; number of coats _____
Gable wall construction: same as main walls; other construction cedar plywood or vertical siding as shown on elevations.

6. FLOOR FRAMING:
Joists: wood, grade, and species _____; other _____; bridging _____; anchors 1/2"x8"
Concrete slab: basement floor; first floor; ground supported; self-supporting; mix 3500 PSI concrete; thickness 4"; reinforcing 6x6-W1, 4xW1, 4 WWP; insulation 1" perimeter; membrane waterproof concrete
Fill under slab: material sand fill; thickness 4". Additional information: _____

7. SUBFLOORING: (Describe underflooring for special floors under item 21.)
Material: grade and species 3/4" AC exterior plywood; size _____; type _____
Laid: first floor; second floor; attic 200 sq. ft sq. ft.; diagonal; right angles. Additional information: _____

8. FINISH FLOORING: (Wood only. Describe other finish flooring under item 21.)

LOCATION	ROOMS	GRADE	SPECIES	THICKNESS	WIDTH	BLDG. PAPER	FINISH
First floor	<u>living area, formal dining,</u>						
Second floor	<u>hall and bedrooms:</u>						<u>pad and carpet installed:</u>
Attic floor	<u>sq. ft.</u>						<u>allowance per square foot</u>

Additional information: _____



DESCRIPTION OF MATERIALS

9. PARTITION FRAMING:

Studs: wood, grade, and species w.c. utility d.f. size and spacing 2x4 studs @16"oc Other _____
 Additional information: NOTE: 2 x 6 studs where needed for plumbing vents.

10. CEILING FRAMING:

Joints: wood, grade, and species w.c. standard d.f. Other see floor plan Bridging 2x4 flat and 2x6 up midspan stiffener
 Additional information: see typical sheet for construction details.

11. ROOF FRAMING:

Rafters: wood, grade, and species w.c. utility d.f. Roof trusses (see detail): grade and species _____
 Additional information: 2x6 rafters @24"oc, unless spans exceed allowable.

12. ROOFING:

Sheathing: wood, grade, and species west coast utility Douglas fir ; solid; spaced _____" o.c.
 Roofing 240 #3 tab sq. butt ; grade #1 ; size _____ ; type _____
 Underlay asphalt shingles ; weight or thickness 5/2 ; size 16" ; fastening nail
 Built-up roofing _____ ; number of plies _____ ; surfacing material _____
 Flashing: material galvanized iron ; gage or weight 26 gauge ; gravel stops; snow guards
 Additional information: _____

13. GUTTERS AND DOWNSPOUTS:

Gutter material galvanized iron ; gage or weight 26 gauge size 5" ; shape o-gee
 Downspouts: material galvanized iron ; gage or weight 26 gauge size 3"x4" ; shape square ; number as need
 Downspouts connected to: Storm sewer; sanitary sewer; dry-well. Splash blocks: material and size _____
 Additional information: _____

14. LATH AND PLASTER

Lath walls, ceilings: material _____ ; weight or thickness _____ Plaster: coats _____ ; finish _____
 Dry-wall walls, ceilings: material Sheetrock ; thickness 1/2" ; finish medium texture ;
 Joint treatment mud and tape; NOTE: Sheetrock applied according to manufacturer's specs.

15. DECORATING: (Paint, wallpaper, etc.)

ROOMS	WALL FINISH MATERIAL AND APPLICATION	CEILING FINISH MATERIAL AND APPLICATION
Kitchen		
Bath	<u>ALL ROOMS: paint and/or wallpaper</u>	<u>all ceilings to be textured</u>
Other		<u>and painted two coats flat paint.</u>
<u>WALLPAPER ALLOWANCE: \$</u>		<u>(includes cost of labor)</u>
Additional information: <u>PANELING: 1/4" v-groove ash</u>		

16. INTERIOR DOORS AND TRIM:

Doors: type hollow core slab ; material ash or birch ; thickness 1-3/8"
 Door trim: type detail ; material white pine Base: type detail ; material white pine ; size 1-1/4"
 Finish doors hand-rubbed stain ; trim hand-rubbed stain
 Other trim (item, type and location): Note: All headers to meet schedule as shown on detail sheet.
 Additional information: _____

17. WINDOWS:

ALL THERMOPANE GLASS- fixed and operating.
 Windows: type single hung ; make Alenco or equal ; material aluminum ; sash thickness 1"
 Glass: grade DS6 ; sash weights; balances: type spring ; head flashing galvanized
 Trim: type Sheetrock return ; material Sheetrock ; Paint texture & paint ; number coats 2
 Weatherstripping: type with units ; material wool pile ; Storm sash, number _____
 Screens: full, half: type metal or aluminum ; number all ; screen cloth material 16" aluminum mesh
 Basement windows: type _____ ; material _____ ; screens, number _____ ; Storm sash, number _____
 Special windows: See plans for fixed windows
 Additional information: NOTE: Sheetrock return on all windows with wood stool and apron.

18. ENTRANCES AND EXTERIOR DETAIL:

see
 Main entrance door: material ash panel ; width plans ; thickness 1-3/4" Frame: material w. pine ; thickness 1-1/8"
 Other entrance doors: material w.p.m.c. ; width plans ; thickness 1-3/4" Frame: material w. pine ; thickness 1-1/8"
 Head flashing galvanized iron ; Weatherstripping: type spring bronze ; thresholds; aluminum
 Screen doors: thickness _____ ; number _____ ; screen cloth material _____ Storm doors: thickness _____ ; number _____
 Combination storm and screen doors: thickness _____ ; number _____ ; screen cloth material _____
 Shutters hinged; fixed Railings _____ ; Attic louvers galvanized back screen in soffit
 Exterior millwork: grade and species redwood or rough cedar ; Paint exterior paint or stain ; number coats 2
 Additional information: Thermopane glass sliding doors with alum. frame

19. CABINETS AND INTERIOR DETAIL:

Kitchen cabinets, wall units: material ash with white pine stiles ; lineal feet of shelves _____ ; shelf width 12"
 Base units: material ash with white pine ; counter top Formica ; edging self-edge Formica
 Back and end splash full Formica ; Finish of cabinets enamel or hand-rubbed stain ; number coats 5
 Medicine cabinets: make _____ ; model _____
 Other cabinets and built-in furniture Ash raised panel door and drawer fronts--shop built
 Additional information: built-in vanities with synthetic marble or Formica top and splash;
 20. STAIRS: built-in ash bookcases (See plans)

STAIR	TREADS		RISERS		STRING		HANDRAIL		BULLSTERS	
	Material	Thickness	Material	Thickness	Material	Size	Material	Size	Material	Size
Basement										
Main										
Attic										
Disapprating: make and model number <u>pull-down ladder to attic access in garage.2040</u>										
Additional information: _____										



DESCRIPTION OF MATERIALS

26. INSULATION:

LOCATION	THICKNESS	MATERIAL TYPE AND METHOD OF INSTALLATION	VAPOUR BARRIER
Roof			
Ceiling	12"	loose-fill fiberglass insulation in ceiling of house only	(blown between joists)
Wall	4"	batts- fiberglass insulation- exterior walls of house	(stapled to studs)
Floor	1"	perimeter insulation under slab.	

27. MISCELLANEOUS: (Describe any main dwelling materials, equipment, or construction items not shown elsewhere; or use to provide additional information where the space provided was inadequate. Always reference by item number to correspond to numbering used on this form.)

LIGHTING FIXTURES. \$ as per contract
 WALLPAPER. \$ per contract labor and material
 LANDSCAPING. \$ as per contract
 CARPET ALLOWANCE. \$ PER SQUARE YARD INSTALLED as per contract
 Cabinet over washer and dryer.
 Waterproof outlet on patio.
 Ornamental fence and gate at main entrance

HARDWARE: (make, material, and finish.)

Dexter or equal passage sets and locks- all exterior doors keyed alike
 deadbolt locks on all exterior doors

SPECIAL EQUIPMENT: (State material or make, model and quantity. Include only equipment and appliances which are acceptable by local law, custom and applicable FHA standards. Do not include items which, by established custom, are supplied by occupant and removed when he vacates premises or chattels prohibited by law from becoming realty.)

APPLIANCE ALLOWANCE: \$ _____
 AS SELECTED BY OWNER WITHIN SPECIFIED ALLOWANCE

PORCHES:

foundation construction: 6" x 8" poured monolithic with the slab.
 floor: 4" concrete slab with 6x6-W1.4xW1.4 WWF smooth trowel finish.

TERRACES:

stoops: 4" concrete slab- smooth trowel finish.
 patio: 4" concrete slab- smooth trowel finish. - see plans for size.

GARAGES: automatic garage door opener

foundation: 14" x 18" concrete footing with (4) 5/8" rebar; 6" concrete stem wall
 floor: 4" concrete with 6x6-W1.4xW1.4 WWF; smooth trowel finish floors.
 interior: 3/8" prefinished Sheetrock on walls; texture and paint 1/2" Sheetrock on ceiling

WALKS AND DRIVEWAYS:

Driveway: width see plot base material amped earth; thickness 6"; surfacing material concrete; thickness 6"
 Front walk: width 16"; material concrete; thickness 6" Service walk: width _____; material _____; thickness _____
 Steps: material _____; treads _____; risers _____. Chalk walls _____

OTHER ONSITE IMPROVEMENTS:

(Specify all exterior onsite improvements not described elsewhere, including items such as unusual grading, drainage structures, retaining walls, fences, railings, and accessory structures.)

NOTE: All dimensions to be rechecked on site prior to beginning construction by builder and builder shall be responsible for the same.

LANDSCAPING, PLANTING, AND FINISH GRADING:

Topsoil _____" thick front yard; side yards; rear yard to _____ feet behind main building
 Lawns (seeded, sodded, or sprayed): front yard _____; side yards _____; rear yard _____
 Planting: as specified and shown on drawings; as follows:
 Shade trees, deciduous, _____" caliper. _____ Evergreen trees, _____" to _____", B & B.
 Low flowering trees, deciduous, _____" to _____" Evergreen shrubs, _____" to _____", B & B.
 High-growing shrubs, deciduous, _____" to _____" Vines, 7-year _____
 Medium-growing shrubs, deciduous, _____" to _____"
 Low-growing shrubs, deciduous, _____" to _____"

IDENTIFICATION.—This exhibit shall be identified by the signature of the builder, or sponsor, and/or the proposed mortgagee if the latter is known at the time of application.

Date _____ Signature _____

