

SKILL STANDARD

CONDITIONS OF PERFORMANCE

**Given the following:**

- Drawing (Sample drawing in Attachment B)
- Drafting kit (Attachment A) or CAD workstation
- Drawing paper with title block and border
- Drafting reference text

WORK TO BE PERFORMED

Identify and apply the "Alphabet of Lines."

PERFORMANCE CRITERIA

All lines are distinct, easily read and of the appropriate line weight and type.

The skill is completed within a one-hour time period. (Time is based on using drawing in Attachment B to complete the skill.)

PERFORMANCE ELEMENTS

1. Identify "Alphabet of Lines" by name, line type variation, order of usage and application on technical drawings.
  - a. Object line
  - b. Hidden line
  - c. Center line
  - d. Section line
  - e. Dimension line
  - f. Extension line
  - g. Cutting plane line
  - h. Short break line
  - i. Long break line
  - j. Phantom line
2. Duplicate drawing using proper line thickness and the "Alphabet of Lines."
3. Darken finish lines.
4. Check drawing.

**PERFORMANCE ASSESSMENT CRITERIA**

**PRODUCT**

The completed drawing illustrates the "Alphabet of Lines" have been correctly applied.

**PROCESS**

All performance elements are critical for correctly applying the "Alphabet of Lines" on a drawing. The steps of performance are numbered to show an appropriate sequence for completing the skill.

## SKILL STANDARD

## CONDITIONS OF PERFORMANCE

**Given the following:**

Drafting kit (Attachment A)  
 Drawing paper with title block and border  
 Drafting reference text

## WORK TO BE PERFORMED

Perform measurements using scales.

## PERFORMANCE CRITERIA

The skill is completed within a one-hour time period.

## PERFORMANCE ELEMENTS

1. Research types of measurement systems used in industry.
  - a. Inch/foot system
  - b. Metric (SI) system
2. Research different types of scales utilized and how they are used for measurements.
  - a. Architectural
  - b. Metric
  - c. Engineering
  - d. Civil
3. Research scaling and proportion.  
 (e.g., 1:1, 100:1,  $\frac{1}{4}$ "=1'-0",  $\frac{3}{4}$  size, 1:50, 1"=1000', etc.)
4. Draw horizontal line five inches in length and apply scaling techniques by measuring line to the following scales. (Print correct scaled length above each line.)
  - a. Architectural scale (1:1,  $\frac{1}{8}$ "=1'-0",  $\frac{1}{4}$ "=1'-0",  $\frac{3}{8}$ "=1'-0",  $\frac{1}{2}$ "=1'-0",  $\frac{3}{4}$ "=1'-0", 1"=1'-0",  $\frac{1}{2}$  size, 1-1/2 size, 1/48 size)
  - b. Metric scale (1:2 ratio, 1:20, 1:200, 1:2000, 1:5, 1:33  $\frac{1}{3}$ , 1:25, 1:75)
  - c. Engineer scale (full size,  $\frac{1}{2}$  size, 1"=100")
  - d. Civil scale (1"=5000', 1"=50', half size)
5. Check results.

**PERFORMANCE ASSESSMENT CRITERIA**

PRODUCT

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Using scales to measure is correctly completed.

PROCESS

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All performance elements are critical for correctly measuring using scales.

## SKILL STANDARD

## CONDITIONS OF PERFORMANCE

**Given the following:**

- Sample text (Attachment C)
- Drafting kit (Attachment A)
- Drawing paper with title block and border (8 ½ "x 11")
- Drafting reference text

## WORK TO BE PERFORMED

Construct proper lettering.

## PERFORMANCE CRITERIA

All lines are distinct, easily read and of the appropriate line weight and type.

The skill is completed within a one-hour time period. (Time is based on using text in Attachment C to complete the skill.)

## PERFORMANCE ELEMENTS

1. Use T-square, parallel bar, or lettering guide to draw two guidelines 1/8" apart horizontally across top of drawing paper.
2. Skip down 1/4" and draw another pair of guidelines 1/8" apart horizontally. Repeat line pairs across paper from top down to bottom.
3. Reproduce passage from text (letters and numbers), fill the drawing completely by printing 1/8" high vertical Gothic capital letters within guidelines.
4. Form each letter and number carefully and consistently.
5. Check drawing.

## PERFORMANCE ASSESSMENT CRITERIA

## PRODUCT

The completed drawing illustrates the lettering has been constructed properly.

## PROCESS

All performance elements are critical for constructing lettering properly on a drawing. The steps of performance are numbered to show an appropriate sequence for completing the skill.

## SKILL STANDARD

## CONDITIONS OF PERFORMANCE

**Given the following:**

Drafting kit (Attachment A) or CAD workstation  
 Drawing paper with title block and border  
 Drafting reference text

## WORK TO BE PERFORMED

Draw geometric constructions.

## PERFORMANCE CRITERIA

The completed drawing illustrates a series of geometric shapes and activities.

All lines are distinct, easily read and of the appropriate line weight and type.

The finished drawing is neat and clear of smudges and completed within a two-hour time period.

## PERFORMANCE ELEMENTS

1. Draw geometric shapes without use of templates or CAD libraries.
  - a. Circles
  - b. Regular polygons with four, seven, and eight sides
  - c. Pentagon inscribed within measured circle
  - d. Hexagon circumscribed about measured circle
  - e. Ellipse
  - f. Parabola
  - g. Triangles whose angles measure 30,60,90; 71,62,47; 20,80,80; 10, 58, 112
  - h. Tangent lines tangent to two circles; tangent to two arcs
  - i. Arcs thru three points; tangent to two circles
2. Check drawing.

## PERFORMANCE ASSESSMENT CRITERIA

## PRODUCT

The completed drawing correctly illustrates the required geometric shapes.

## PROCESS

All performance elements are critical for producing a drawing illustrating a series of geometric shapes.

SKILL STANDARD

CONDITIONS OF PERFORMANCE

**Given the following:**

- Drawing (Sample drawing in Attachment D)
- Drafting kit (Attachment A) or CAD workstation
- Drawing paper with title block and border
- Drafting reference text

WORK TO BE PERFORMED

Construct a multiview (orthographic 2-D) drawing.

PERFORMANCE CRITERIA

The drawing illustrates three views of an object with correct line representation.  
All lines are distinct, easily read and of the appropriate line weight and type.  
The finished drawing is neat and clear of smudges and completed within a half-hour time period. (Time is based on using drawing in Attachment D to complete the skill).

PERFORMANCE ELEMENTS

1. Select proper views.
2. Identify types of lines to be used.
3. Construct full scale (1:1) orthographic 3-view drawing using third angle projection with top, front, and right side views. Show all hidden features and centerlines.
4. Complete title block by selecting lettering style and size.
5. Apply proper thickness to all lines.
6. Check drawing.

PERFORMANCE ASSESSMENT CRITERIA

PRODUCT

The finished multiview (orthographic 2-D) drawing is constructed correctly.

PROCESS

All performance elements are critical for constructing a multiview (orthographic 2-D) drawing. The steps of performance are numbered to show an appropriate sequence for completing the skill.

## SKILL STANDARD

## CONDITIONS OF PERFORMANCE

**Given the following:**

- Drawing (Sample drawing in Attachment E)
- Drafting kit (Attachment A) or CAD workstation
- Drawing paper with title block and border
- Drafting reference text

## WORK TO BE PERFORMED

Develop a pictorial (3-D) drawing.

## PERFORMANCE CRITERIA

The drawing has a correct view orientation.

All lines are distinct, easily read and of the appropriate line weight and type.

The finished drawing is neat and clear of smudges and completed within a one-hour time period. (Time is based on using drawing in Attachment E to complete the skill.)

## PERFORMANCE ELEMENTS

1. Lay out isometric corner with left and right side lines each 30 degrees up from horizontal and third line at a vertical, with all three lines joining in a common intersection.
2. Use isometric corner to construct full scale (1:1) basic isometric drawing, including hidden features.
3. Complete title block by selecting lettering style and size.
4. Apply proper thickness to lines.
5. Check drawing.

## PERFORMANCE ASSESSMENT CRITERIA

## PRODUCT

The completed pictorial (3-D) drawing is correctly developed.

## PROCESS

All performance elements are critical for correctly preparing a pictorial (3-D) drawing. The steps of performance are numbered to show an appropriate sequence for completing the skill.

SKILL STANDARD

CONDITIONS OF PERFORMANCE

**Given the following:**

- Drafting kit (Attachment A)
- Drafting reference text
- Manufacturers' catalogs

WORK TO BE PERFORMED

Reference and record information from available sources.

PERFORMANCE CRITERIA

- All referenced information is recorded in notes.
- The skill is completed within a one-hour time period.

PERFORMANCE ELEMENTS

1. Locate information from appropriate reference materials. (See the following examples.)
  - a. Find tap drill size for a 1/2" nominal diameter American National Unified NF screw thread; record information.
  - b. Find width across flats for 7/8" diameter American National Standard hexagon cap screw; record information.
  - c. Find outside eye diameter of 5/16" nominal size American National Standard Cotter Pin; record information.
  - d. Find ANS abbreviations for: diameter, fillet, required, nominal, schedule, and section; record information.
2. Select catalog product and record its specifications. (For example, select window from window manufacturer's catalog and record its specifications; select similar sized window from different manufacturer's catalog and record its specs.) Note all differences (e.g., rough opening size, part number, etc.).

**PERFORMANCE ASSESSMENT CRITERIA**

PRODUCT

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The information from available sources is correctly referenced and recorded.

PROCESS

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All performance elements are critical for correctly referencing and recording information from available sources.

## SKILL STANDARD

## CONDITIONS OF PERFORMANCE

**Given the following:**

Two copies of a drawing (Sample drawing in Attachment D)  
Drafting kit (Attachment A) or CAD workstation  
Drafting reference text

## WORK TO BE PERFORMED

Construct and dimension drawings.

## PERFORMANCE CRITERIA

All major features on the drawings are appropriately dimensioned, neat, and clear of smudges.

All lines are distinct, easily read and of the appropriate line weight and type.

The drawing is dimensioned within a two-hour time period. (Time is based on using drawing in Attachment D to complete the skill.)

## PERFORMANCE ELEMENTS

1. Identify dimensioning styles and methods (e.g., coordinate, linear/datum).
2. Select 2-D views to be dimensioned.
3. Dimension views on first drawing copy using coordinate dimensioning.
4. Dimension from one feature across to next, feature in order, until all dimensions have been located, drawn, and lettered. Dimension horizontally and vertically as needed until all features are dimensioned.
5. Dimension views on second drawing copy using linear (datum) as style of dimensioning.
6. Start all dimensions from common datum corner, designated 0, 0, 0 and continue to edge(s) of each feature being dimensioned. Dimension in this manner both vertically and horizontally until all dimensions have been located, drawn, and lettered. Continue until all features have been dimensioned.
7. Dimension complex shapes when appropriate (e.g., spheres, cylinders, tapers, pyramids).
8. Apply appropriate line thickness and type to dimension, extension, and center lines.
9. Check drawing.

**PERFORMANCE ASSESSMENT CRITERIA**

PRODUCT

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The completed drawings are dimensioned correctly, showing all necessary details and information.

PROCESS

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All performance elements are critical for correctly dimensioning drawings. The steps of performance are numbered to show an appropriate sequence for completing the skill.

## SKILL STANDARD

## CONDITIONS OF PERFORMANCE

**Given the following:**

Drawing (Sample drawing in Attachment F)  
 Drafting kit (Attachment A) or CAD workstation  
 Drafting reference text

## WORK TO BE PERFORMED

Apply notes and leaders.

## PERFORMANCE CRITERIA

The finished drawing is appropriately labeled, neat and clear of smudges.  
 All lines are distinct, easily read and of the appropriate line weight and type.  
 The skill is completed within a half-hour time period. (Time is based on using drawing in Attachment F to complete the skill.)

## PERFORMANCE ELEMENTS

1. Apply appropriate notes and/or leaders to drawing.
2. Apply appropriate lettering, line thickness and type.
3. Check drawing.

## PERFORMANCE ASSESSMENT CRITERIA

## PRODUCT

The completed drawing illustrates correct application of notes and leaders.

## PROCESS

All performance elements are critical for correctly applying notes and leaders on a drawing. The steps of performance are numbered to show an appropriate sequence for completing the skill.

## SKILL STANDARD

## CONDITIONS OF PERFORMANCE

**Given the following:**

- Drawing (Sample drawing in Attachment G)
- Drafting kit (Attachment A) or CAD workstation
- Drafting reference text
- Departmental policy and procedures

## WORK TO BE PERFORMED

Make drawing revisions.

## PERFORMANCE CRITERIA

All major features on the drawings are neat and clear of smudges.

All lines are distinct, easily read and of the appropriate line weight and type.

The skill is completed within a one-hour time period. (Time is based on using drawing in Attachment G to complete the skill.)

## PERFORMANCE ELEMENTS

1. Review drawing revision (change) procedures.
2. Identify drawing to be modified.
3. Make modifications to drawing.
4. Construct a revision table on drawing and, after completing changes (revisions), record them properly on revision table.
5. Apply appropriate line thickness and type.
6. Check drawing.

## PERFORMANCE ASSESSMENT CRITERIA

## PRODUCT

The completed drawing illustrates all revisions have been correctly made and properly recorded.

## PROCESS

All performance elements are critical for correctly revising and recording changes on a drawing. The steps of performance are numbered to show an appropriate sequence for completing the skill.

## SKILL STANDARD

## CONDITIONS OF PERFORMANCE

**Given the following:**

Drafting kit (Attachment A) or CAD workstation  
Drawing paper with title block and border  
Survey drawing  
Site layout sketch  
Written legal description  
Local codes

## WORK TO BE PERFORMED

Draw plot plan.

## PERFORMANCE CRITERIA

The plan includes all original ground features and accommodates any added features.

All dimensions, notes and references are clearly shown.

All lines are distinct, dark, easily read and of the appropriate line weight and type.

The finished drawing is neat and clear of smudges and completed within a four-hour time period. (Time is based on using sample in Appendix H to complete the skill.)

## PERFORMANCE ELEMENTS

1. Review design data and site layout sketch.
2. Indicate existing ground features on drawing (e.g., utilities, contours, landscape features, etc.).
3. Indicate boundaries, easement, and established setbacks of site and give bearing.
4. Place structure on site.
5. Locate and identify bench mark and elevation level.
6. Draw additional construction extending beyond exterior walls of structure (e.g., driveways, sidewalks, patios, decks, proposed utilities, etc.).
7. Draw proposed contour lines and indicate grade elevations.
8. Indicate modifications of any existing site elements.
9. Draw proposed landscape features.
10. Indicate scale of drawing and view title.
11. Indicate north arrow.
12. Check drawing.

**PERFORMANCE ASSESSMENT CRITERIA**

**PRODUCT**

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The finished plot plan is correctly drawn and clearly shows all details and information.

**PROCESS**

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All performance elements are critical for plot plan construction. The steps of performance are numbered to show an appropriate sequence for completing the skill.

## SKILL STANDARD

## CONDITIONS OF PERFORMANCE

**Given the following:**

Drafting kit (Attachment A) or CAD workstation  
Drawing paper with title block and border  
Floor plan (Sample floor plan in Attachment I)  
Construction specifications

## WORK TO BE PERFORMED

Draw floor plan.

## PERFORMANCE CRITERIA

The floor plan illustrates the location of all rooms and all specifications.

All dimensions, notes and references are clearly shown.

All lines are distinct, dark, easily read and of the appropriate line weight and type.

The finished drawing is neat and clear of smudges and completed within an eight-hour time period. (Time is based on using floor plan in Attachment I to complete the skill.)

## PERFORMANCE ELEMENTS

1. Review preliminary sketches and notes.
2. Lay out exterior limits of structure.
3. Draw rooms and interior walls.
4. Draw kitchen and bathroom features.
5. Indicate openings in exterior and interior walls.
6. Draw door and window sizes specified by floor plan sketch.
7. Add dimensions, notes and room labels.
8. Draw material symbols.
9. Indicate scale of drawing and view title.
10. Indicate north arrow.
11. Check drawing.

**PERFORMANCE ASSESSMENT CRITERIA**

**PRODUCT**

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The finished floor plan is correctly drawn and clearly shows all details and information.

**PROCESS**

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All performance elements are critical for correct floor plan construction. The steps of performance are numbered to show an appropriate sequence for completing the skill.

## SKILL STANDARD

## CONDITIONS OF PERFORMANCE

**Given the following:**

Drafting kit (Attachment A) or CAD workstation  
Drawing paper with title block and border  
Floor plan (Sample floor plan in Attachment I)  
Door and window schedule format  
Construction specifications

## WORK TO BE PERFORMED

Draw door and window schedules.

## PERFORMANCE CRITERIA

The schedules appear on the floor plan in parallel columns.

All dimensions, notes and references are clearly shown.

All lines are distinct, dark, easily read and of the appropriate line weight and type.

The finished drawing is neat and clear of smudges and completed within a one-hour time period. (Time is based on using floor plan in Attachment I to complete the skill.)

## PERFORMANCE ELEMENTS

1. Collect notes and format(s) pertaining to schedules.
2. Lay out schedules on floor plan.
3. Make headings for window schedule.
4. Make headings for door schedule.
5. Lay out lettering guidelines.
6. Letter schedules.
7. Check drawing.

**PERFORMANCE ASSESSMENT CRITERIA**

PRODUCT

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The finished door and window schedules are correctly drawn and clearly show all details and information.

PROCESS

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All performance elements are critical for door and window schedule construction. The steps of performance are numbered to show an appropriate sequence for completing the skill.

## SKILL STANDARD

## CONDITIONS OF PERFORMANCE

**Given the following:**

Drafting kit (Attachment A) or CAD workstation  
Drawing paper with title block and border  
Floor plan (Sample floor plan in Attachment I)  
Sketches  
Construction specifications

## WORK TO BE PERFORMED

Draw foundation plan.

## PERFORMANCE CRITERIA

All labels, notes, symbols and reference dimensions meet stated specifications.

All dimensions, notes and references are clearly shown.

All lines are distinct, dark, easily read and of the appropriate line weight and type.

The finished drawing is neat and clear of smudges and completed within a four-hour time period. (Time is based on using floor plan in Attachment I to complete the skill.)

## PERFORMANCE ELEMENTS

1. Review floor plan, sketches and notes.
2. Trace common features from floor plan.
3. Draw foundation, structural supports and footing outline.
4. Indicate floor drains.
5. Add dimensions.
6. Indicate labels, notes, symbols and references.
7. Indicate scale of drawing and view title.
8. Indicate north arrow.
9. Check drawing.

**PERFORMANCE ASSESSMENT CRITERIA**

**PRODUCT**

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The finished foundation plan is correctly drawn and clearly shows all details and information.

**PROCESS**

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All performance elements are critical for foundation plan construction. The steps of performance are numbered to show an appropriate sequence for completing the skill.

## SKILL STANDARD

## CONDITIONS OF PERFORMANCE

**Given the following:**

- Drafting kit (Attachment A) or CAD workstation
- Drawing paper with title block and border
- Preliminary roof framing sketch
- Floor plan (Sample floor plan in Attachment I)
- Foundation plan (Sample foundation plan in Attachment J)
- Construction specifications

## WORK TO BE PERFORMED

Draw roof framing plan.

## PERFORMANCE CRITERIA

The roof framing plan shows the rafter layout, cornice, roof type and pitch and construction specified in the request for plan.

All labels, notes, dimensions and material symbols are correctly shown.

All lines are distinct, dark, easily read and of the appropriate line weight and type.

The finished drawing is neat and clear of smudges and completed within an eight-hour time period. (Time is based on using floor plan in Attachment I to complete the skill.)

## PERFORMANCE ELEMENTS

1. Review floor plan, foundation plan and preliminary roof framing sketch.
2. Trace exterior wall outline from floor plan.
3. Confirm roof style (e.g., gable, shed, hip, etc.) and cornice overhang size.
4. Draw center ridge board(s).
5. Draw all rafters, jack rafters, etc., with specified on-center spacing.
6. Indicate any special construction (e.g., around chimney, etc.).
7. Add labels, notes and dimensions.
8. Indicate material symbols.
9. Indicate scale of drawing and view title.
10. Indicate north arrow.
11. Check drawing.

**PERFORMANCE ASSESSMENT CRITERIA**

**PRODUCT**

The finished roof framing plan is correctly drawn and clearly shows all details and information.

**PROCESS**

All performance elements are critical for roof framing plan construction. The steps of performance are numbered to show an appropriate sequence for completing the skill.

## SKILL STANDARD

## CONDITIONS OF PERFORMANCE

**Given the following:**

- Drafting kit (Attachment A) or CAD workstation
- Drawing paper with title block and border
- Floor plan (Sample floor plan in Attachment I)
- Foundation plan (Sample foundation plan in Attachment J)
- Roof plan (Sample roof plan in Attachment K)
- Construction specifications

## WORK TO BE PERFORMED

Draw front, rear, left and right side exterior elevation views.

## PERFORMANCE CRITERIA

The drawings describe the exterior of the structure.

All labels, notes, dimensions and material symbols are correctly shown.

All lines are distinct, dark, easily read and of the appropriate line weight and type.

The drawing is neat and clear of smudges and completed within a 12-hour time period. (Time is based on using floor and roof plan in Attachments I, J and K to complete the skill.)

## PERFORMANCE ELEMENTS

1. Review design data and layouts.
2. Draw grade line.
3. Project construction lines from plans.
4. Indicate finished floor level(s).
5. Indicate finished ceiling level(s).
6. Draw and detail windows and doors.
7. Draw roof outline.
8. Letter wall and roof finishes, roof pitch, chimney, decks, and porches.
9. Add dimensions, notes and labels.
10. Indicate scale of drawing and view title.
11. Check drawing.

**PERFORMANCE ASSESSMENT CRITERIA**

PRODUCT

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The finished elevations views are correctly drawn and clearly show all necessary details and information.

PROCESS

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All performance elements are critical for correctly drawing elevation views. The steps of performance are numbered to show an appropriate sequence for completing the skill.

## SKILL STANDARD

## CONDITIONS OF PERFORMANCE

**Given the following:**

- Drafting kit (Attachment A) or CAD workstation
- Drawing paper with title block and border
- Floor plan (Sample floor plan in Attachment I)
- Wall section
- Construction Specifications

## WORK TO BE PERFORMED

Draw interior elevations (kitchen elevations are recommended for assessment process).

## PERFORMANCE CRITERIA

- The drawing illustrates the layout of the interior features of the structure.
- All labels, notes, dimensions and material symbols are correctly shown.
- All lines are distinct, dark, easily read and of the appropriate line weight and type.
- The finished drawing is neat and clear of smudges and completed within a six-hour period. (Time is based on using floor plan in Attachment I to complete the skill.)

## PERFORMANCE ELEMENTS

1. Review design data and layouts.
2. Indicate true width of walls.
3. Indicate all openings in interior or exterior walls.
4. Indicate typical sections of standard built-in features.
5. Note wall materials (or finish).
6. Indicate fixtures, built-ins, trim and molding, and utilities.
7. Add dimensions, notes and labels.
8. Indicate scale of drawing and view title.
9. Darken finish lines.
10. Check drawing.

**PERFORMANCE ASSESSMENT CRITERIA**

PRODUCT

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The finished interior elevations plan is correctly drawn and clearly shows all details and information.

PROCESS

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All performance elements are critical for construction of the interior elevations plan. The steps of performance are numbered to show an appropriate sequence for completing the skill.

## SKILL STANDARD

## CONDITIONS OF PERFORMANCE

**Given the following:**

Drafting kit (Attachment A) or CAD workstation  
Drawing paper with title block and border  
Floor plan (Sample floor plan in Attachment I)  
Stair specifications

## WORK TO BE PERFORMED

Construct stair section drawings.

## PERFORMANCE CRITERIA

All risers, treads and landings are exact according to the written specifications.

The floor to floor heights and angles are exact for the stringer.

All lines are distinct, dark, easily read and of the appropriate line weight and type.

The finished drawing is neat and clear of smudges and completed within a four-hour time period. (Time is based on using floor plan in Attachment I to complete the skill.)

## PERFORMANCE ELEMENTS

1. Review floor plan and stair specifications.
2. Confirm floor to floor heights.
3. Draw finished floor and finished ceiling lines heights.
4. Calculate and layout risers, treads and landings.
5. Draw stringer.
6. Indicate framing around stairs.
7. Identify materials used to construct stairs.
8. Draw trim features (e.g., handrail(s), tread covers, etc.).
9. Dimension total rise and run.
10. Indicate headroom clearance and stairwell opening.
11. Add dimensions, notes and labels.
12. Check drawing.

**PERFORMANCE ASSESSMENT CRITERIA**

PRODUCT

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The finished stair section drawing is correctly drawn and clearly shows all necessary details and information.

PROCESS

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All performance elements are critical for stair section drawing construction. The steps of performance are numbered to show an appropriate sequence for completing the skill.

SKILL STANDARD

CONDITIONS OF PERFORMANCE

**Given the following:**

- Drafting kit (Attachment A) or CAD workstation
- Drawing paper with title block and floor plan
- Floor plan (Sample floor plan in Attachment I)
- Finish schedule format
- Interior finish specifications

WORK TO BE PERFORMED

Construct interior finish schedule.

PERFORMANCE CRITERIA

- The schedule details all project information for the wall, floor and ceiling finishes.
- The needed information is determined from the interior finish specifications.
- All lines are distinct, dark, easily read and of the appropriate line weight and type.
- The finished drawing is neat and clear of smudges and completed within a two-hour time period. (Time is based on using floor plan in Attachment I to complete the skill.)

PERFORMANCE ELEMENTS

1. Lay out schedule to fit given format.
2. Lay out lettering guidelines.
3. Make headings for each schedule.
4. Letter information into finish schedule.
5. Check drawing.

**PERFORMANCE ASSESSMENT CRITERIA**

**PRODUCT**

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The finished interior schedule is correctly constructed and clearly shows all necessary details and information.

**PROCESS**

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All performance elements are critical for correct interior finish schedule construction. The steps of performance are numbered to show an appropriate sequence for completing the skill.

## SKILL STANDARD

## CONDITIONS OF PERFORMANCE

**Given the following:**

Drafting kit (Attachment A) or CAD workstation  
Drawing paper with title block and border  
Floor plan (Sample floor plan in Attachment I)  
Foundation plan (Sample foundation plan in Attachment J)  
Roof plan (Sample roof plan in Attachment K)  
Construction specifications

## WORK TO BE PERFORMED

Draw wall section.

## PERFORMANCE CRITERIA

All sizes, location, and shapes of the materials are correctly detailed.  
The needed information is determined from the roof, floor and foundation plans.  
All lines are distinct, dark, easily read and of the appropriate line weight and style.  
The finished drawing is neat and clear of smudges and completed within an eight-hour time period. (Time is based on using plans in Attachments I, J and K to complete the skill.)

## PERFORMANCE ELEMENTS

1. Review roof, floor, and foundation plans and construction specifications.
2. Draw footing and foundation walls.
3. Draw basement foundation reinforcing steel.
4. Draw floor construction.
5. Draw waterproofing and ground control for foundation walls, around footings (drain tiles), and under basement floor slabs.
6. Draw termite protection.
7. Draw external stud wall construction.
8. Draw floor and ceiling construction.
9. Draw roof construction, overhang, gutter, and method of roof ventilation.
10. Draw wall and ceiling insulation.
11. Add dimensions, notes and labels.
12. Check drawing.

**PERFORMANCE ASSESSMENT CRITERIA**

PRODUCT

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The finished wall section is correctly drawn and clearly shows all necessary details and information.

PROCESS

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All performance elements are critical for wall section plan construction. The steps of performance are numbered to show an appropriate sequence for completing the skill.

## SKILL STANDARD

## CONDITIONS OF PERFORMANCE

**Given the following:**

Drafting kit (Attachment A) or CAD workstation  
Drawing paper with title block and border  
Floor plan (Sample floor plan in Attachment I)  
Wall section  
Manufacturers' catalogs  
Construction specifications

## WORK TO BE PERFORMED

Draw door details.

## PERFORMANCE CRITERIA

The drawing details show the exact size and shape of the materials used in door construction, including door jamb, head and sill.

The required information is determined from the wall section, floor plan, construction specifications and manufacturers' catalogs.

All lines are distinct, dark, easily read and of the appropriate line weight and type.

The finished drawing is neat and clear of smudges and completed within a three-hour period. (Time is based on using floor plan in Attachment I to complete the skill.)

## PERFORMANCE ELEMENTS

1. Review wall section, floor plan, construction specifications and manufacturers' catalogs.
2. Draw head, jamb and sill details, including interior and exterior trim finishes.
3. Add dimensions, notes and labels.
4. Check drawing.

**PERFORMANCE ASSESSMENT CRITERIA**

PRODUCT

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The finished door details are correctly drawn and clearly show all necessary details and information.

PROCESS

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All performance elements are critical for door details construction. The steps of performance are numbered to show an appropriate sequence for completing the skill.

## SKILL STANDARD

## CONDITIONS OF PERFORMANCE

**Given the following:**

Drafting kit (Attachment A) or CAD workstation  
Drawing paper with title block and border  
Floor plan (Sample floor plan in Attachment I)  
Wall section  
Manufacturers' catalogs  
Construction specifications

## WORK TO BE PERFORMED

Draw window details.

## PERFORMANCE CRITERIA

The drawing details show the exact size and shape of the materials used in window construction, including doorjamb, head and sill.

The required information is determined from the wall section, floor plan, construction specifications and manufacturers' catalogs.

All lines are distinct, dark, easily read, and of the appropriate line weight and type.

The finished drawing is neat and clear of smudges and completed within a three-hour period. (Time is based on using floor plan in Attachment I to complete the skill.)

## PERFORMANCE ELEMENTS

1. Review wall section, floor plan, construction specifications, and manufacturers' catalogs.
2. Draw head, jamb and sill details, including interior and exterior trim finishes.
3. Add dimensions, notes and labels.
4. Check drawing.

**PERFORMANCE ASSESSMENT CRITERIA**

PRODUCT

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The finished window details are correctly drawn and clearly show all necessary details and information.

PROCESS

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All performance elements are critical for window details construction. The steps of performance are numbered to show an appropriate sequence for completing the skill.

SKILL STANDARD

CONDITIONS OF PERFORMANCE

**Given the following:**

Drafting kit (Attachment A) or CAD workstation  
Drawing paper with title block and border  
Floor plan (Sample floor plan in Attachment I)  
Interior elevations

WORK TO BE PERFORMED

Create interior one-point perspective view.

PERFORMANCE CRITERIA

The drawing view illustrates the principle of one-point perspective drawing (perspective of kitchen is recommended for assessment process).

The drawing view includes all materials and finishes.

The drawing view shows all depth (except oblique lines) projected to one vanishing point.

All lines are distinct, dark, easily read and of the appropriate line weight and type.

The finished drawing view is neat and clear of smudges and completed within a three-hour time period. (Time is based on using floor plan in Attachment I to complete the skill.)

PERFORMANCE ELEMENTS

1. Review floor plan and interior elevations.
2. Locate picture plane line (PPL).
3. Determine cutting plane line on floor plan.
4. Position floor plan on PPL.
5. Locate ground line (GL).
6. Locate horizontal line (HL).
7. Locate station point (SP).
8. Place elevation on either side of area reserved for perspective drawing.
9. Locate vanishing point on HL.
10. Project frame from floor plan and elevation.
11. Locate all features that touch picture plan line first and project them to GL.
12. Project all horizontal lines from elevation view.
13. Remove all unnecessary lines, and clean drawing.
14. Check drawing.

**PERFORMANCE ASSESSMENT CRITERIA**

PRODUCT

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The finished interior one-point perspective view is correctly drawn and clearly shows all necessary details and information.

PROCESS

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All performance elements are critical for correct construction of an interior one-point perspective view. The steps of performance are numbered to show an appropriate sequence of work completion; however, a different sequence of steps may be used.

SKILL STANDARD

CONDITIONS OF PERFORMANCE

**Given the following:**

Drafting kit (Attachment A) or CAD workstation  
Drawing paper with title block and border  
Floor plan (Sample floor plan in Attachment I)  
Exterior elevations

WORK TO BE PERFORMED

Create exterior two-point perspective view.

PERFORMANCE CRITERIA

The drawing view illustrates the principle of two-point perspective drawing.

The drawing view includes the shape of the structure plus all materials and finishes.

The drawing view shows all depth (except oblique lines) projected to two vanishing points.

All lines are distinct, dark, easily read and of the appropriate line weight and type.

The finished drawing view is neat and clear of smudges and completed within an eight-hour time period. (Time is based on using floor plan in Attachment I to complete the skill.)

PERFORMANCE ELEMENTS

1. Review floor plan and exterior elevations.
2. Draw picture plane line (PPL).
3. Determine cutting plane line on floor plan and locate on PPL.
4. Position floor plan on picture plane.
5. Locate center of vision.
6. Establish station point (SP).
7. Draw perpendicular projector from SP to PPL.
8. Draw horizontal ground line (GL).
9. Draw elevation on GL.
10. Locate horizontal line (HL).
11. Drop vertical projector from PPL to HL on right and left which locate right and left vanishing points (VPR and VPL).
12. Draw vertical true height from PPL to GL.
13. Locate top and bottom of perspective from true height lines to VPR and VPL.
14. Continue drawing all remaining lines and features on perspective.
15. Remove all unnecessary lines and clean drawing.
16. Check drawing.

**PERFORMANCE ASSESSMENT CRITERIA**

**PRODUCT**

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The finished exterior two-point perspective view is correctly drawn and shows all necessary details and information.

**PROCESS**

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All performance elements are critical for correctly drawing an exterior two-point perspective view. The steps of performance are numbered to show an appropriate sequence of work completion; however, a different sequence of steps may be used.

SKILL STANDARD

CONDITIONS OF PERFORMANCE

**Given the following:**

Drafting kit (Attachment A) or CAD workstation  
Completed set of architectural plans  
Architectural/engineering notes/data  
Colored pencils  
Manufacturers' catalogs  
Construction specifications

WORK TO BE PERFORMED

Check completed architectural plans (Excluding perspective drawings is recommended).

PERFORMANCE CRITERIA

The plans reflect all architectural/engineering notes, sketches, and designs.  
All lines are distinct, dark, easily read and of the appropriate line weight and type.  
All errors and/or omissions are identified on the plans within an eight-hour time period.

PERFORMANCE ELEMENTS

1. Compare completed plan with architectural/engineering notes/data, manufacturers' catalogs and construction specifications.
2. Check drawing for accuracy (e.g., wall placement and size, feature sizes, door/window placement, etc.).
3. Check and verify dimensions.
4. Check and verify notes, lettering, symbols and references.
5. Check and verify title block information.
6. Check plan for line quality and type.

**PERFORMANCE ASSESSMENT CRITERIA**

PRODUCT

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The checked architectural plan is completed with all errors and/or omissions correctly identified.

PROCESS

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All performance elements are critical for architectural plan checking. The steps of performance are numbered to show an appropriate sequence of work completion; however, a different sequence of steps may be used.