

Course Number and Title: ARCH 155 / Basic Architectural Drawing

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Course Website: www.thedraftedline.com/teaching

ASSIGNMENT 5: SURVEY AND SCALE DRAWING

ASSIGNMENT 6: DRAFTED PLAN DRAWING @ 1/8" = 1'-0" SCALE

ASSIGNMENT 7: DRAFTED SECTION DRAWING @ 1/8" = 1'-0" SCALE

Many projects begin with a survey of existing conditions. Survey information is often obtained through physical measurements of a space and translated into base drawings (floor plans, elevations and sections). It is these drawings that form the basis for future work. Therefore, the more accurate these survey measurements are, the more accurate your drawings will be.

For this assignment you are to survey the entry sequence into the Main Building as a continuous path from exterior to interior. Your drawing class will be divided into four groups: each group is responsible for the survey of their assigned zone, labeled 1-4 in the diagram on the reverse of this handout. Refer to the diagram for your group number, location and extent of the survey you are responsible for. Survey information should include, at a minimum, the following:

Plan information:

- Overall dimensions of spaces in three dimensions: length, width, height
- Dimensions of smaller elements: location and dimension of 'changes in plane'
- Location of doors and windows, including the frames and the corresponding material thicknesses
- Dimensions to 'datum lines' such as columns, material changes, floor or ceiling plane
- Dimensions from walls to column centers for overall plan dimension verification
- Column diameters, distance to/from each other, including those outside your team's assigned area.
- Floor patterns, textures and other material information

Interior section and elevation information:

- Floor- to-ceiling height, floor thickness, detail profiles
- Dimensions of windows, including frames
- Vertical and horizontal locations / dimensions of windows and doorways (sill and head height)
- Location of windows (height & depth of sill, overall depth of exterior wall, location of glass within the frame)
- Height and location of baseboards and other material changes

GROUP 1: Exterior Entry Plan and east-facing Elevation of Main Building entry. Drawings should include a portion of Market Street, the curb height, width of the sidewalk, stair and landing rise height and tread length and other plan and elevation information (excluding the railing on the steps) up to the centerline of the first set of doors.

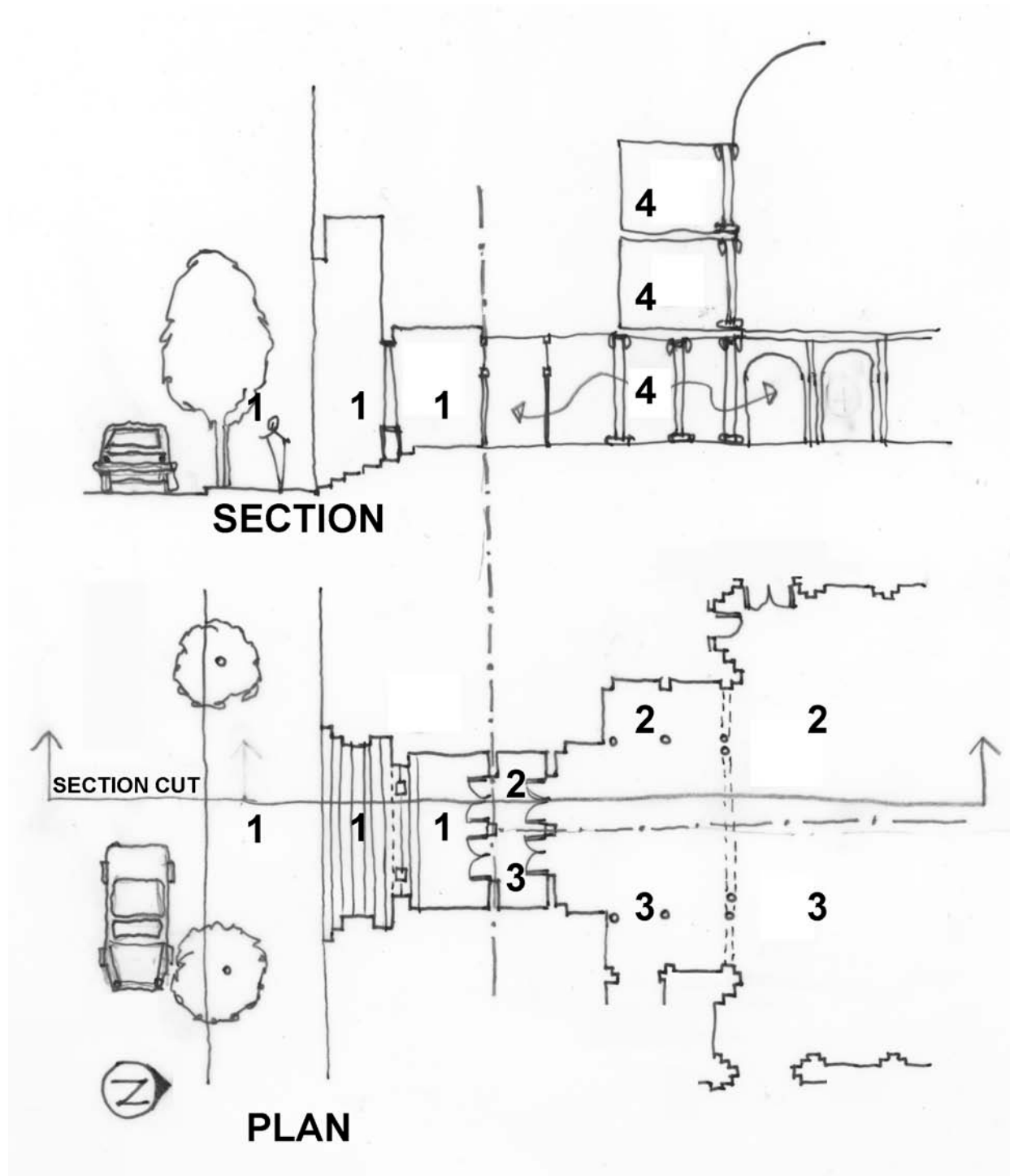
GROUP 2: West ½ of Interior Entry Plan including locations of pilasters, columns, doors and floor patterns. Drawings should include the entry vestibule and two archway bays into the Grand Hall of the Main Building.

GROUP 3: East ½ of Interior Entry Plan including locations of pilasters, columns, doors and floor patterns. Drawings should include the entry vestibule and two archway bays into the Grand Hall of the Main Building. These drawings need not include the east corridor that borders the Grand Hall.

GROUP 4: Elevations of East-facing interior walls of Main Building Entry, two archway bays of the Grand Hall, floor-to-ceiling measurements, floor thickness measurements; mezzanine dimensions (distance from wall to railing noted in a plan or section drawing) on the 2nd and 3rd floors; and the height of the ceiling over the Grand Hall.

Note to all groups: refer to the diagram on reverse for a graphic explanation of your responsibilities.

Assignment Objectives: development of critical thinking and graphic skills through surveying of an existing building to the nearest 1/4 " and translation into carefully crafted hand-drafted drawings; collaborative skill development through teamwork; understanding of formal ordering systems through experience and observation of real spaces.



ASSIGNMENT 5: begin in class 10.27.09 / 10.29.09, due 11.03.09 / 11.05.09

1. Before beginning with any measurements, assign each team member a portion of the space to draw freehand in their sketchbook. This drawing need not be to scale but should include important changes in plane, objects such as columns, wall interruptions such as doors, windows and changes in materials and should strive to be proportionally accurate based on observed conditions.
2. These preliminary drawings may include plan and elevation drawings, detail drawings of important areas (cornices, columns bases and capitals, floor patterns) as well as photographs.
3. To begin measuring, two group members should work the tape measure with the other group member(s) adding dimensions to and refining the drawings as the survey progresses.
4. Return to your drafting board and work from the dimensioned survey drawings to **draft a measured scale drawing on vellum**. Each group member may work on a portion of the drawing or one group member can draft the entire drawing. **This drawing should be at 1/8" = 1'-0" scale.**
5. Each group should be prepared to present their portion of the Main Building drafted on vellum in class. These drawings will be combined in class and photocopied for each student's use on the remainder of the project.

ASSIGNMENT 6: begin in class 11.03.09 / 11.05.09, due 11.10.09 / 11.12.09

1. Combine drafted drawings from all groups into a single plan and set of elevation drawings. Label drawings as necessary for ease of reference.
2. Photocopy these drawings for each team member.
3. Each student should draft a floor plan to scale of the Main Building Entry sequence. This drawing should be completed on drawing-quality paper such as Canson Miententes or similar.
4. Begin with construction-weight lines to lay out the space.
 - a. **Primary lines** designate cut-through elements such as columns and walls as well as elements that are closest to the viewer, in section the primary line will also represent the **ground plane** which extends from Market Street through the entry sequence into the Grand Hall of the Main Building;
 - b. **Secondary lines** are used to delineate surfaces that lie beyond the plane of the plan cut; doors, windowsills and railings; and occurrences of a "change in plane" such as material changes, stair treads, etc.
 - c. **Tertiary lines** may be used for elevation detail information or other surface information that does not signify a change in form – rather these lines represent pattern or texture on surfaces.

ASSIGNMENT 7: begin in class 11.10.09 / 11.12.09, due 11.17.09 / 11.19.09

1. Using your drafted floor plan as a guide, draft a section of the Main Building Entry Sequence.
2. This drawing should extend from Market Street through to the interior of the Grand Hall, including 2 archway bays at the first floor level, the south mezzanines and the vaulted ceiling enclosing the Grand Hall.
3. Include a scale human figure, a car and a tree in this drawing. Add the car and tree to your drafted plan too.



