Department of Architectural Technology 2019 Fall

ARCH 1231 BUILDING TECHNOLOGY I

Module 1: Case Study Plans Assignment

Description: Architecture is a three-dimensional craft where art and science intersect. Materials are assembled to create space and shelter. The convention and tradition of documenting and diagramming architecture, however, continues to be predominantly two-dimensional, using orthographic, abstract diagrams to depict specific views of buildings: plan, section, and elevation. Each view requires a cut plane and a direction.

This assignment focuses on the study of the case study building in plan view. This study will provide the opportunity to understand the building's ordering system, the spatial sequence and configuration, the transparency between one space and another, the transparency between interior and exterior, the structural typology of the building, and the nature of the envelop that regulates the interface between the interior environment and the exterior environment.

Note: All drawings require careful architectural lettering for titles, scale, student name, and annotations.

Assignment Context: This assignment is focused the methodology of rigorously setting out architectural plans and provides a basis for the next assignment that focuses of the three-dimensional study of structural components.

Prerequisites: Understanding of orthographic projection, line weight, scale, architectural drafting techniques.

Recommended Text:
Ching, Francis. Architecture Graphics. John Wiley and Sons, 2009.

Suggested Reference: See the City Tech Openlab for additional reference materials.

Plagiarism: Student work submitted must be original and developed individually. Tracing is not acceptable. All construction lines and notations during drawing construction are to remain visible at final submission. Drawings without construction lines (guidelines) will be downgrading significantly.

Assignment Specific Learning Outcomes / Assessment Method	
Learning Outcomes	**Assessment Methods**
Upon successful completion of this assignment the student shall be able to:	To evaluate the students' achievement of the learning objectives, the professor will do the following:
Layout coordinated, accurate, and consistent plans demonstrating the proper use of plan drawing conventions.	**Review** student case study floor plans for accuracy, coordination, and consistency as well as the application of line weight and drawing conventions following assignment rubric.

Grading Rubric

	Approaching Benchmark	Benchmark	Approaching Capstone	Capstone
Completion Work is complete with all elements of the plans depicted, titles, scale, name and north arrow included.	Structural Grid, Poche Layer, Mostly Depicted but with omissions, drawing title and name	Structural Grid, Poche Layer, Interior + Exterior Stairs Mostly Depicted but with minor omissions, drawing title and name	Structural Grid, Poche Layer, Interior + Exterior Stairs, Windows, Sills, Dashed Ceiling Elements Mostly Depicted but with minor omissions, drawing title and name	Structural Grid, Poche Layer, Interior + Exterior Stairs, Windows, Sills, Dashed Ceiling Elements All Depicted With Drawing title, name, scale, north arrow
Lineweight / Line Quality Construction Lines Lines have proper weight and consistent quality distinguishing elements especially poche lines structural grid lines and center lines, construction lines, and transparent elements.	Lines are consistent thickness but indistinguishable in weight construction lines not apparent	Lines are consistent thickness but minimally distinguishable in weight, construction lines not apparent	Lines are consistent thickness with distinction between poche lineweight, grid lines, and construction lines. Construction lines are apparent and used correctly.	Lines are consistent thickness with distinction between poche Lineweight, grid lines, window transparency, reflected ceiling lines and construction lines. Construction lines are apparent and used correctly.
Plan Geometry / Grid Understanding of the building geometry and organization of elements is evident in the drawing.	General configuration of spaces and elements is depicted	In addition, relationships and alignments are accurate and guided by guidelines showing clear relationship	In addition, drawings articulate the ordering system through centerlines, geometric modules, gridlines, and guidelines	In addition, variations and subtleties in sizing and spacing of elements are recognized and depicted.
Plan Accuracy Setting out of grid and the relationship of elements to the grid is accurate.	Structural Grid is established	In addition, structural grid is dimensioned accurately and labeled correctly	In addition, major elements (walls, columns, windows, piers) are accurately placed in relation to the structural grid	In addition, all plan elements are carefully located in relationship to centerlines and the structural grid
Plan Conventions Standard methods of drawing and documentation of key data and elements are utilized.	Elements are depicted but some do not follow proper conventions	Most elements are depicted according to proper convention but some do not follow proper conventions	Most elements are depicted according to proper conventions including poche elements, structural grid lines, centerlines, dimensions, drawing title.	All elements are depicted according to proper conventions including poche elements, windows, doors, stairs, structural grid lines, centerlines, dimensions, drawing title, scale
Stair Accuracy / Convention A clear understanding of stair plan conventions is demonstrated.	Stair is depicted but without accuracy or conventions	Risers are shown and are consistent and generally accurate	In addition, handrail is correctly indicted. Cutline and arrows are included but not fully correct	In addition, stair cutline and arrows are correctly depicted.

Assignment Schedule: See Syllabus

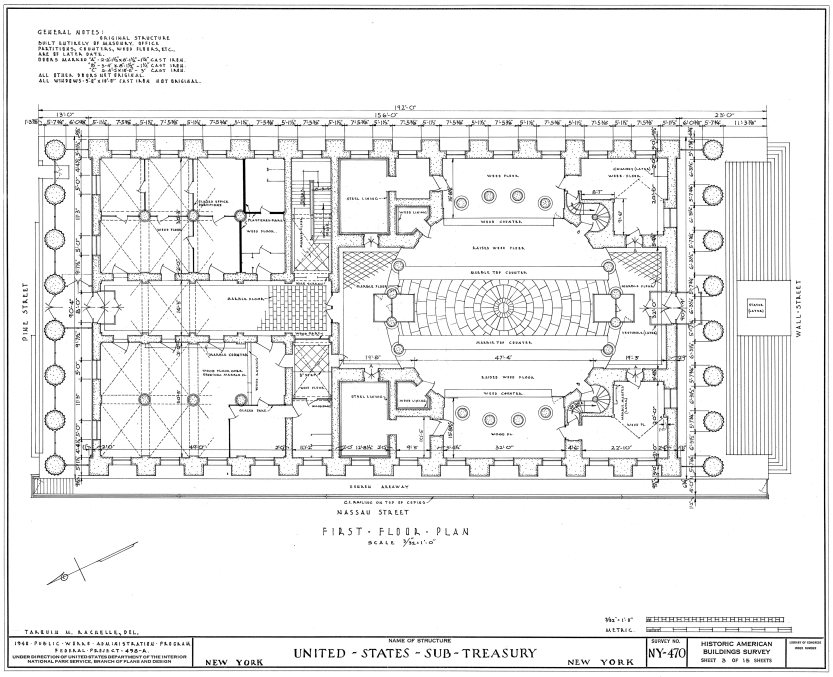
Deliverables:

1.	First Floor Plan	Sheet Size: 24”x 36”	Scale: 3/32”=1’-0”
2.	Second Floor Plan	Sheet Size: 24”x 36”	Scale: 3/32”=1’-0”

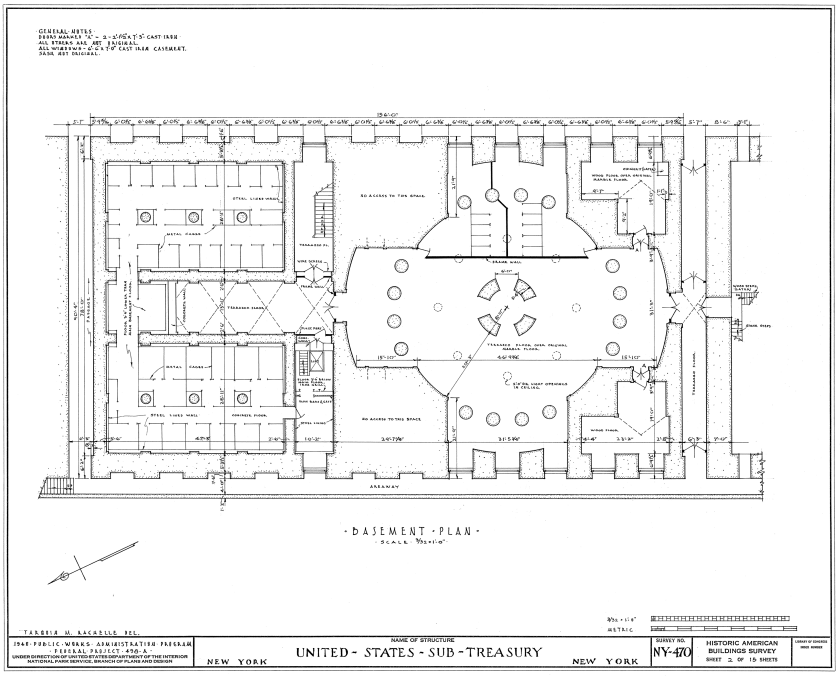
Extra Credit:

3.	Basement Floor Plan	Sheet Size: 24”x 36”	Scale: 3/32”=1’-0”

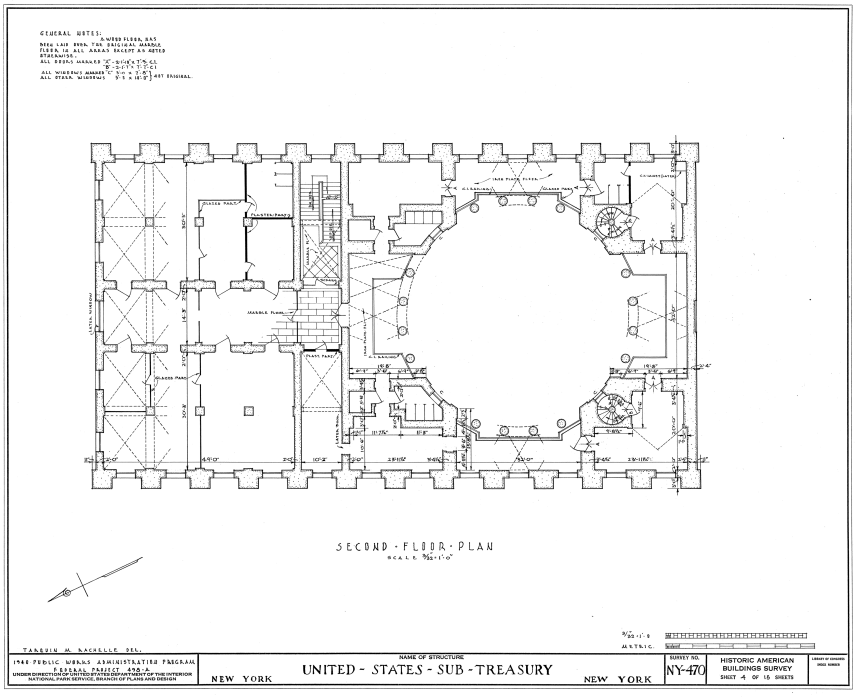
Point Value: See Syllabus + Grade Template



First Floor Plan Historic American Building Survey Drawing



Basement Plan Historic American Building Survey Drawing



Second Floor Plan Historic American Building Survey Drawing