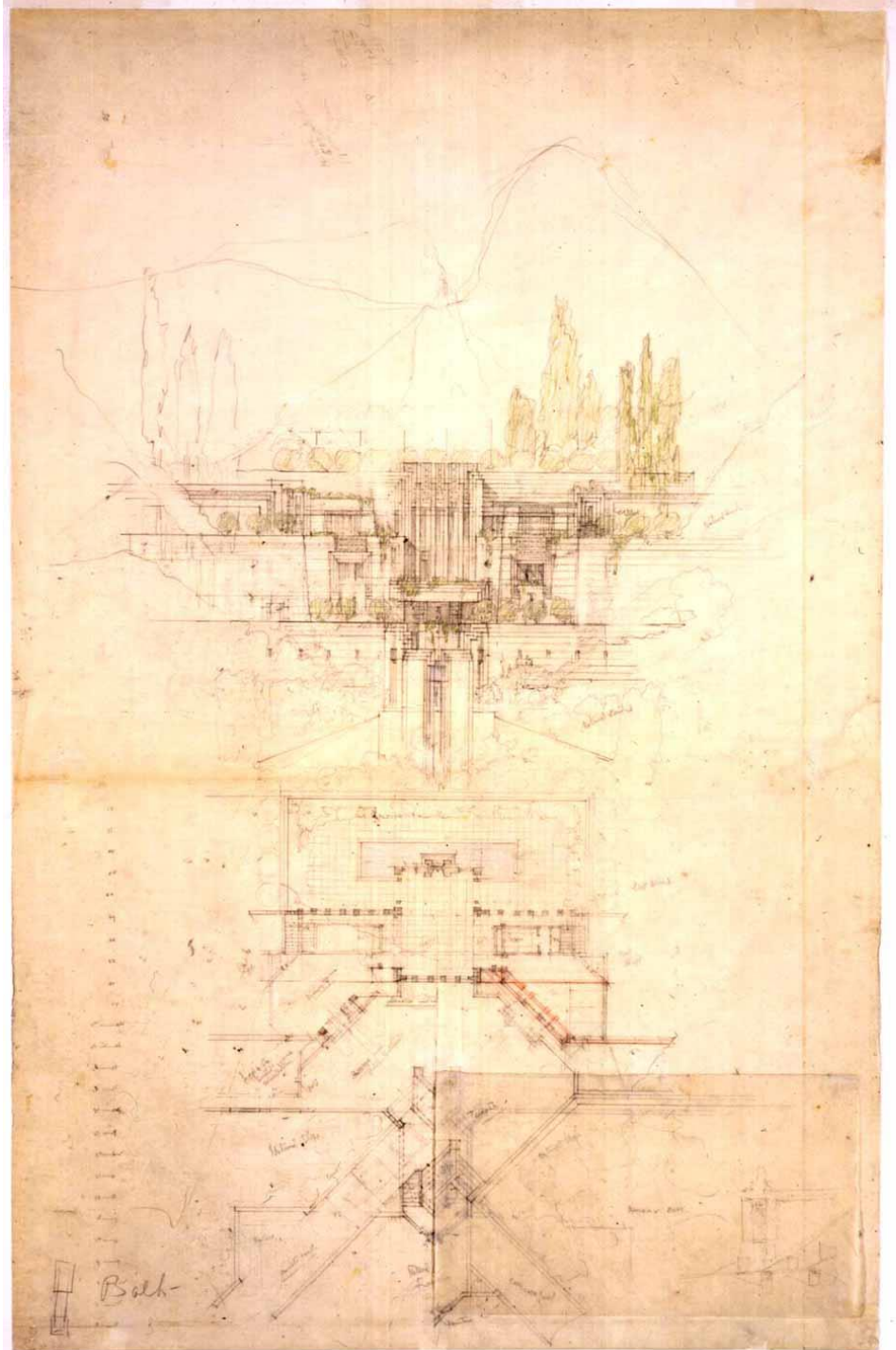# Working Drawings:
Exterior Elevations

CMCE 1110 Construction Drawings
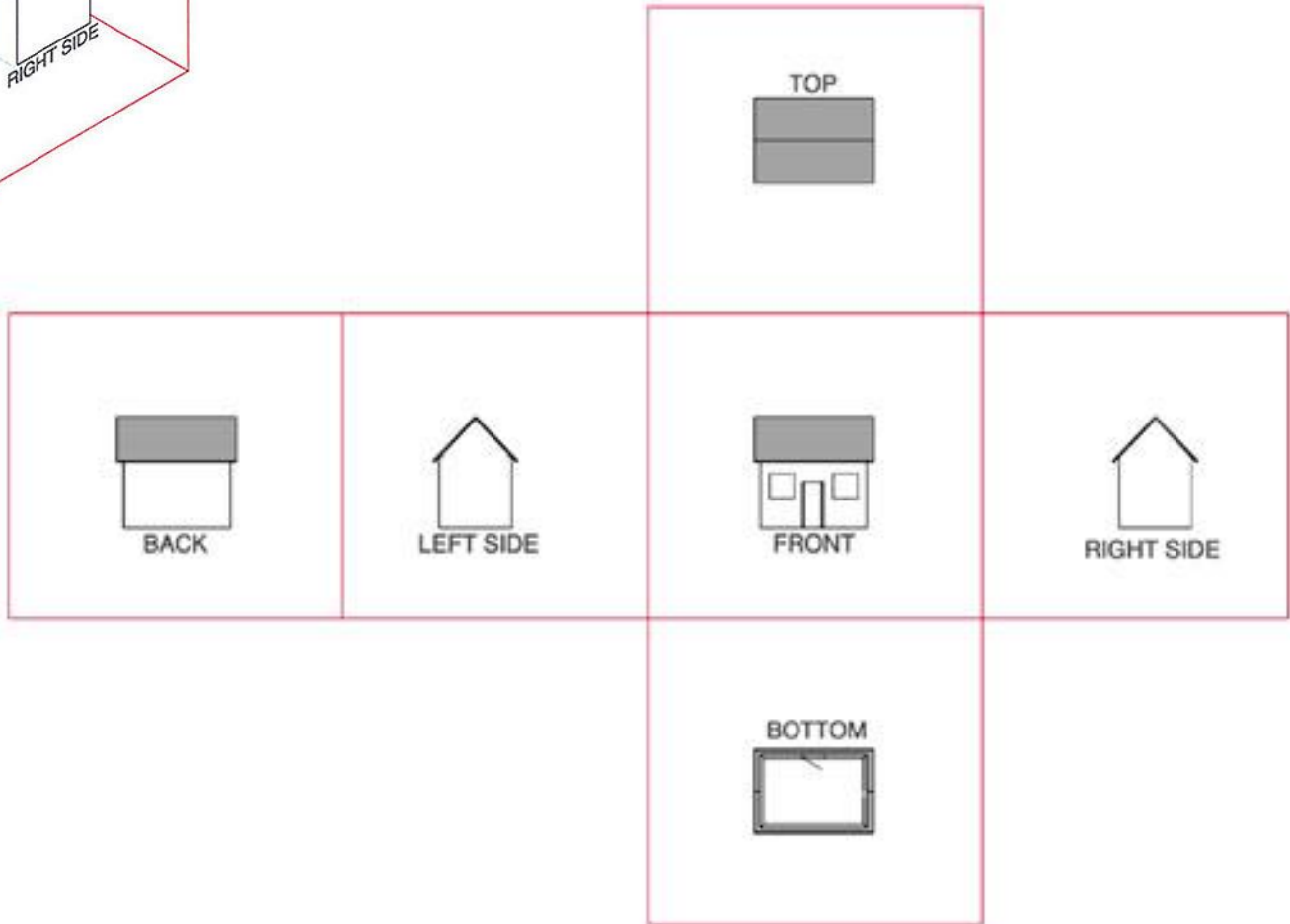
Professor Anderson
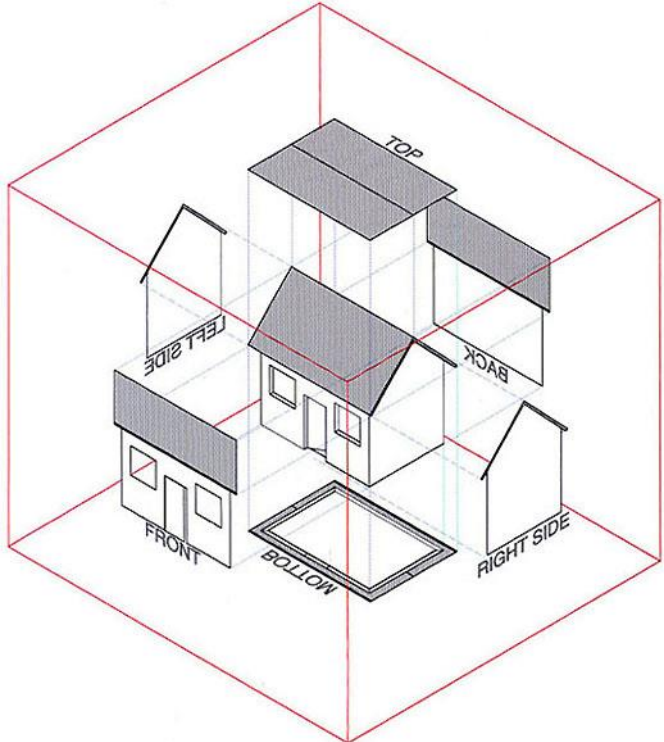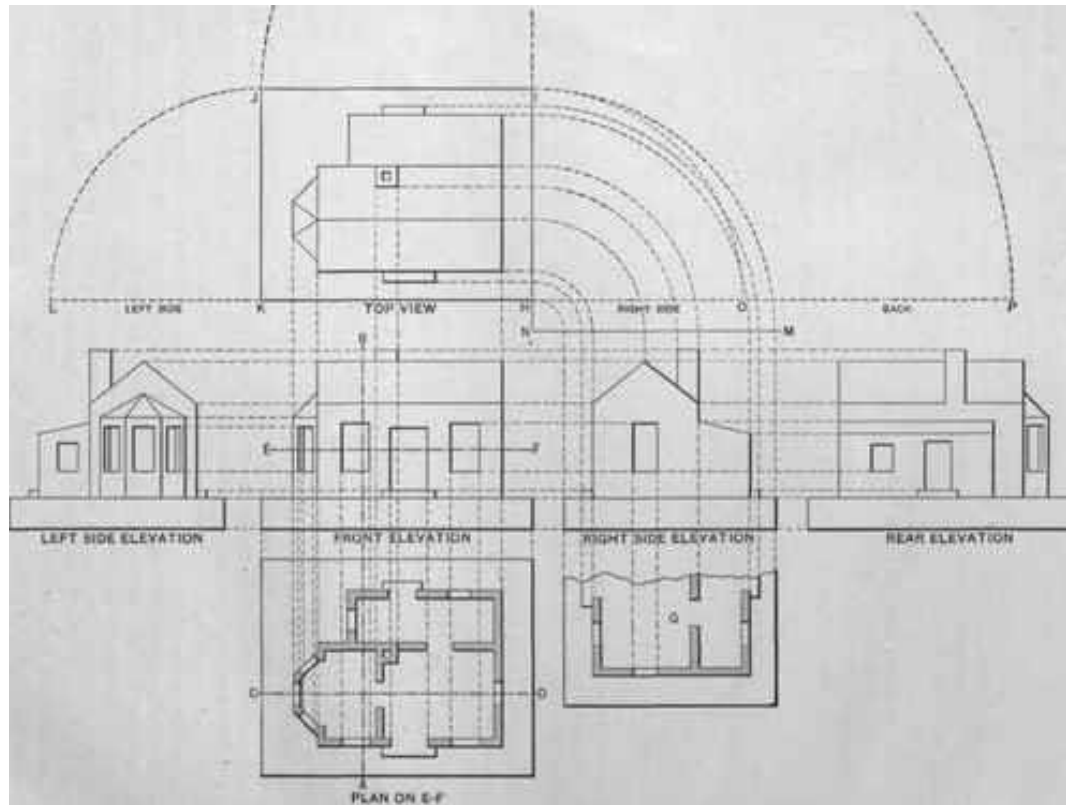
Gordon Matta Clark, *Splitting*
1974

Building Cuts Series
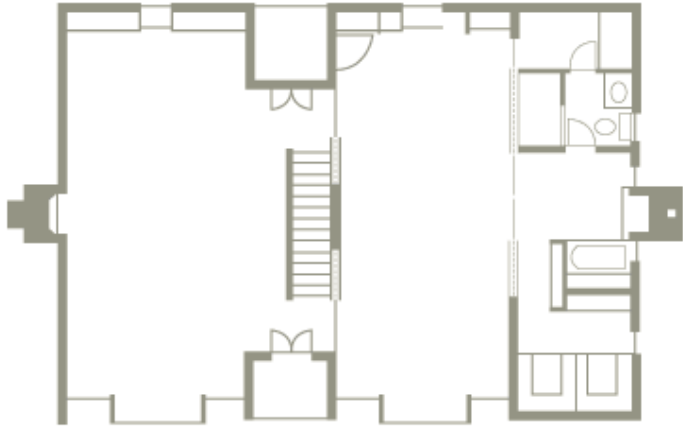
Principles of Orthographic Projection

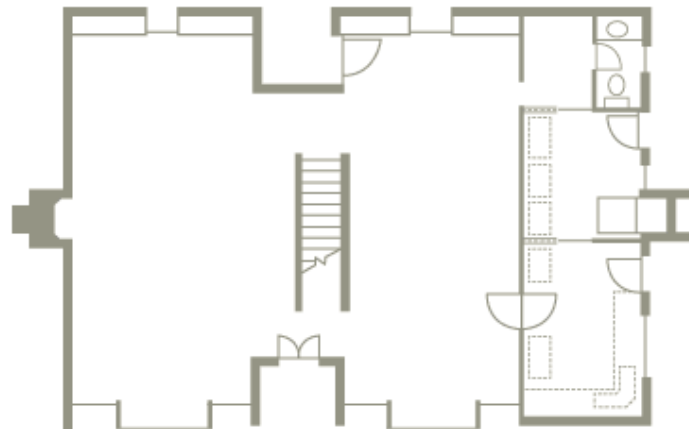# Principles of Orthographic Projection

Escherick House

Louis Kahn, 1959-1961

204 Sunrise Lane, Philadelphia, PA
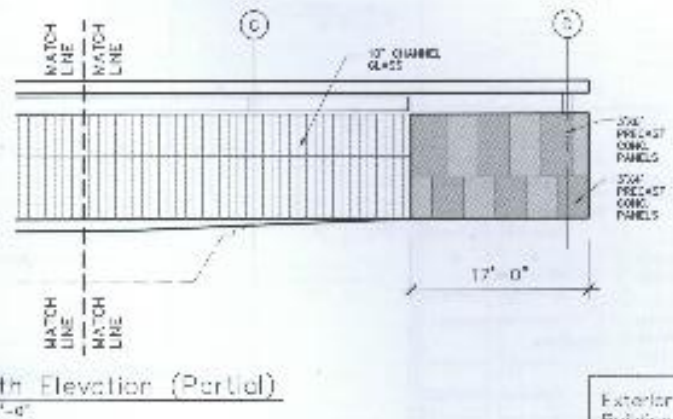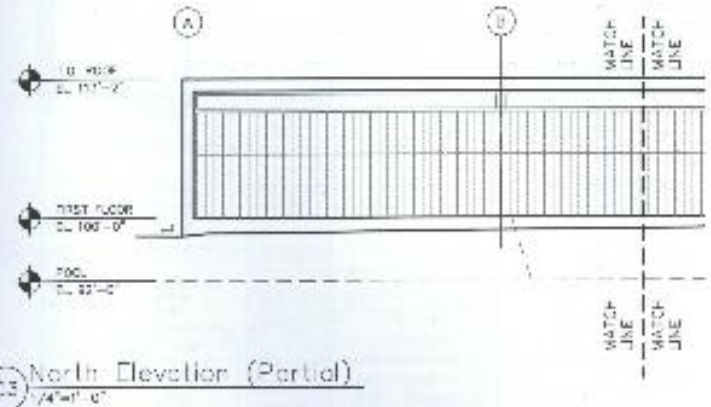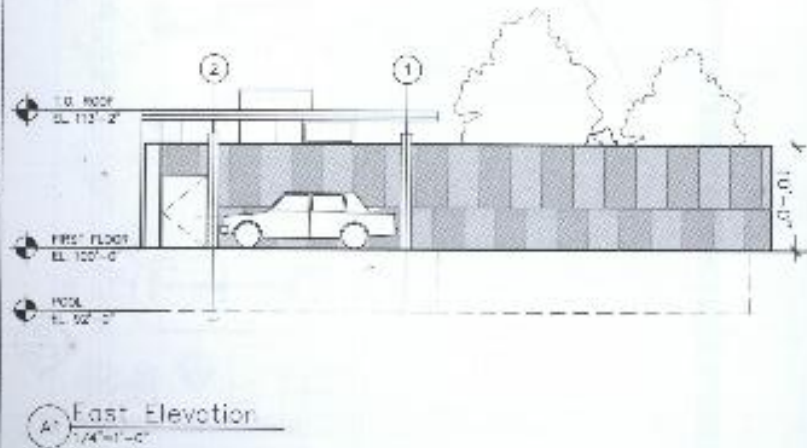

SECOND FLOOR PLAN

FIRST FLOOR PLAN

Building Elevations

Building elevations depict the exterior conditions of the building, describing materials and important vertical dimensions. In instances where a drawing is too large to fit on a standard sheet, it must be broken apart and continued on the same sheet or another sheet, requiring the use of match lines for alignment.

West Elevation — C1 — 1/4"=1'-0"

East Elevation — A1 — 1/4"=1'-0"

North Elevation (Partial) — C3 — 1/4"=1'-0"

North Elevation (Partial) — A3 — 1/4"=1'-0"
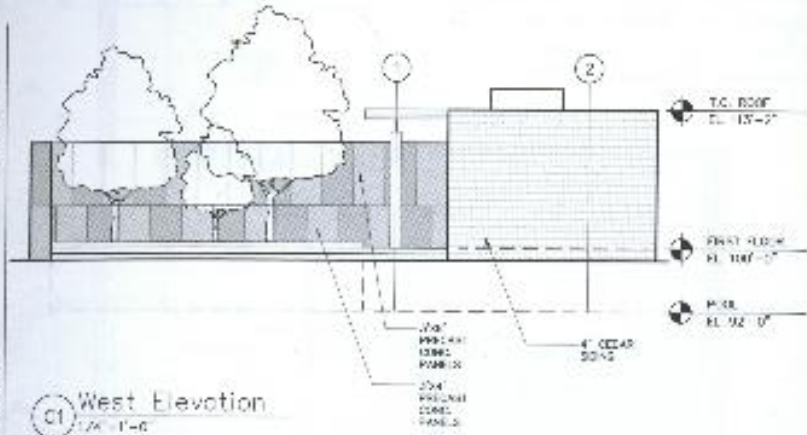
Exterior Building Elevations

A-201

Autocad Techniques

- Leaders
- Notes
- Hatch
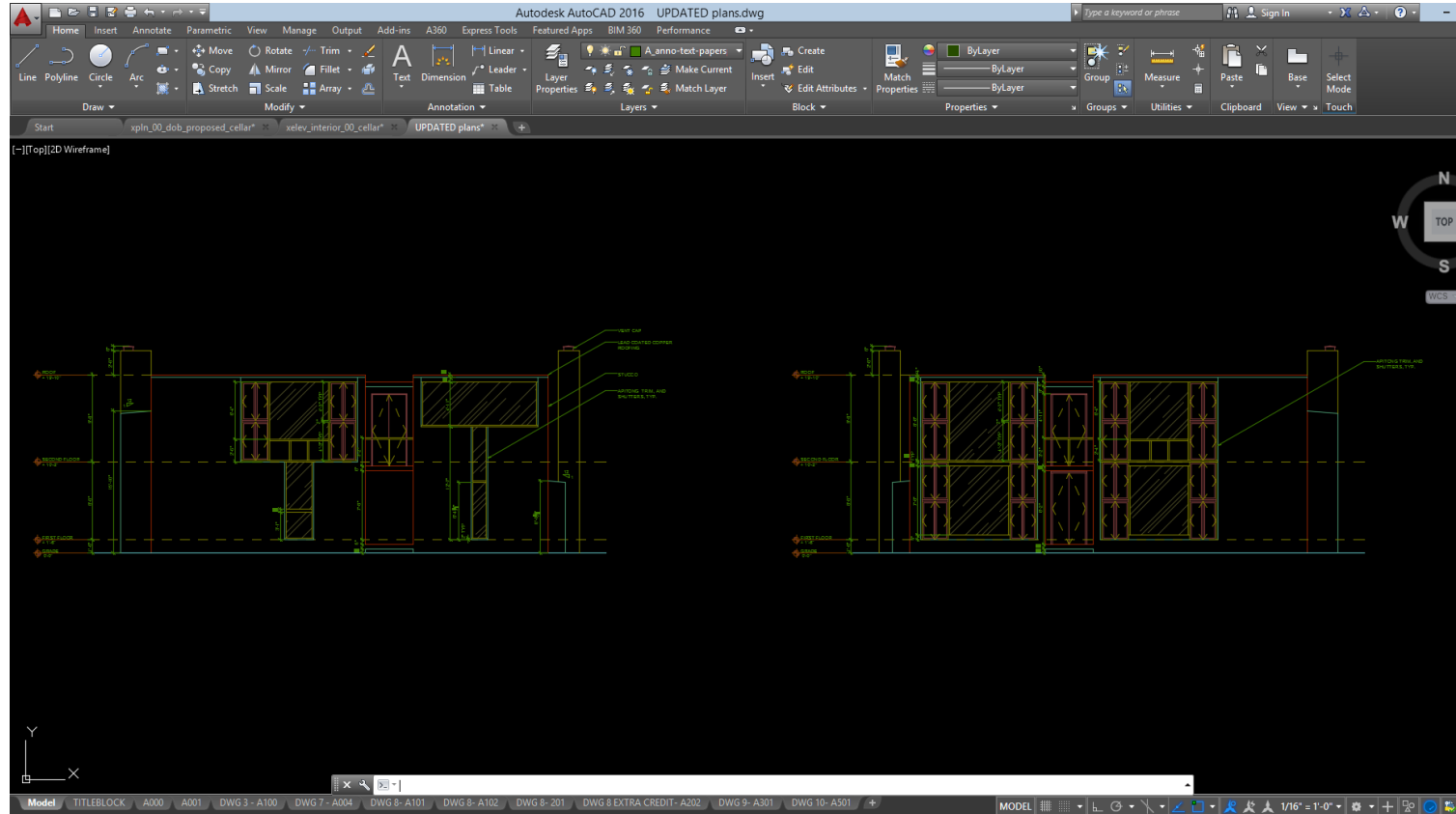
Tools we have learned:

- Line and X-Lines
- Offset
- Extend/Trim
- Fillet
- Copy/Paste
- Ortho Mode and Polar Tracking
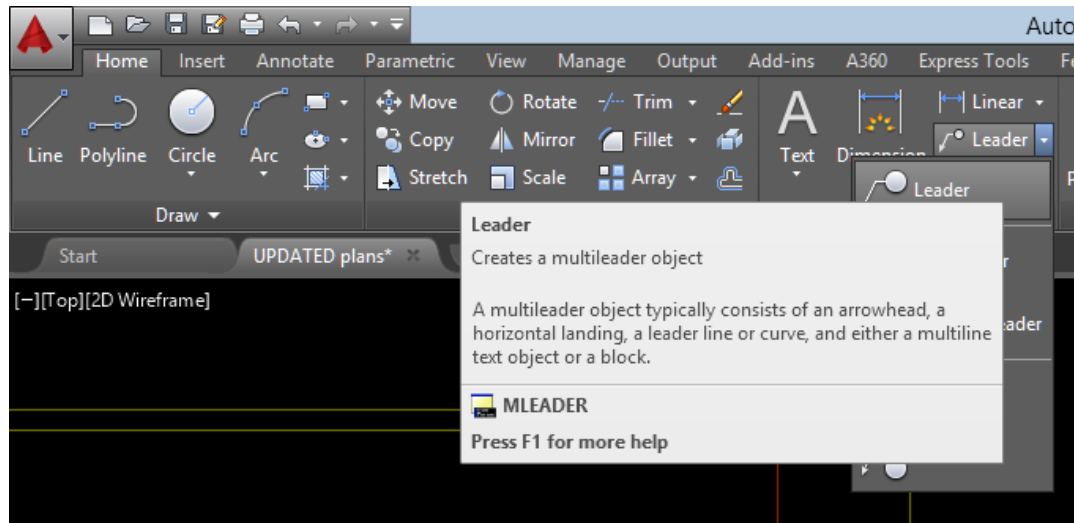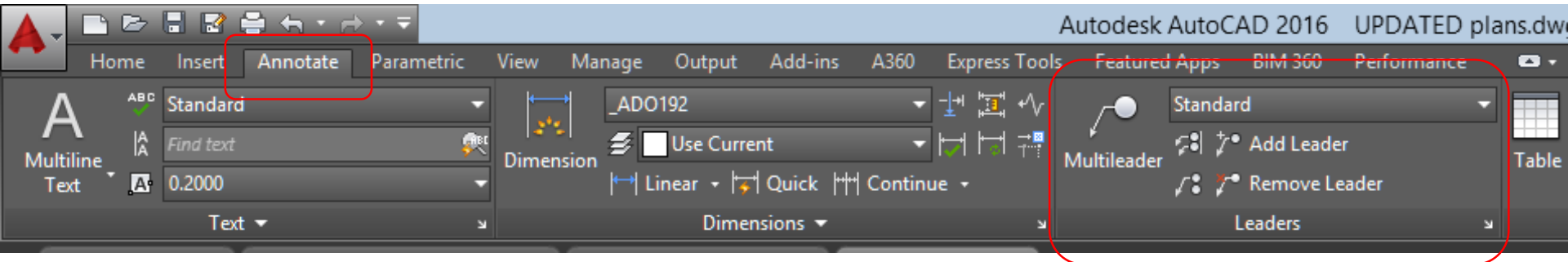- Object Snap

- Layers and Color Styles
- Line-types
- Dimensioning
- Paper Space vs Model Space
- Viewports
- Arc
- Ellipse
- Blocks

Leaders and Notes

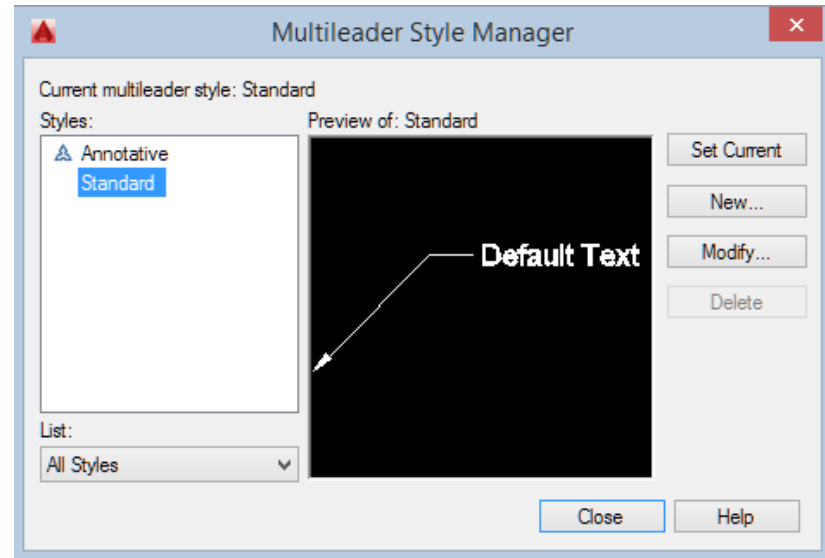*Leader* creates a line the connect annotation to a feature. It is used for adding *notes* to a drawing.

Resources: https://knowledge.autodesk.com/support/autocad/learn-explore/caas/CloudHelp/cloudhelp/2016/ENU/AutoCAD-Core/files/GUID-BC466DEE-ACD8-419A-B017-AB3065336AD7-htm.html
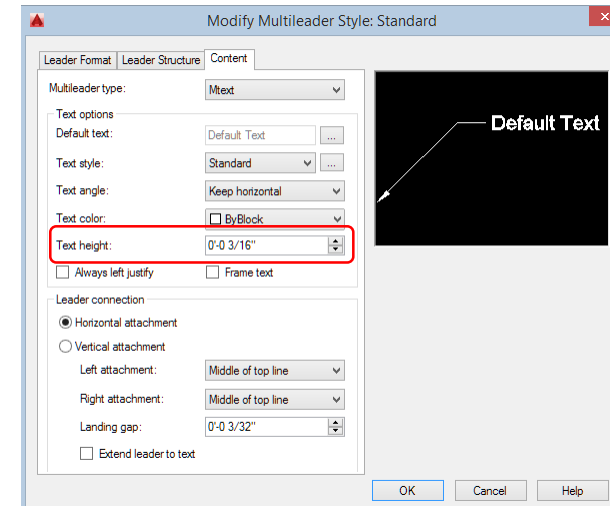
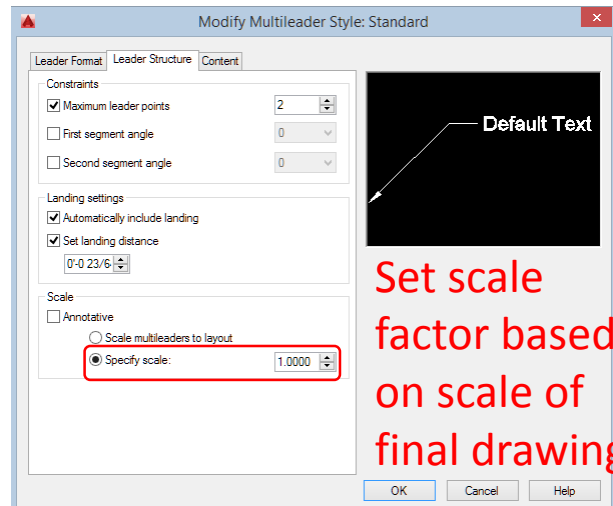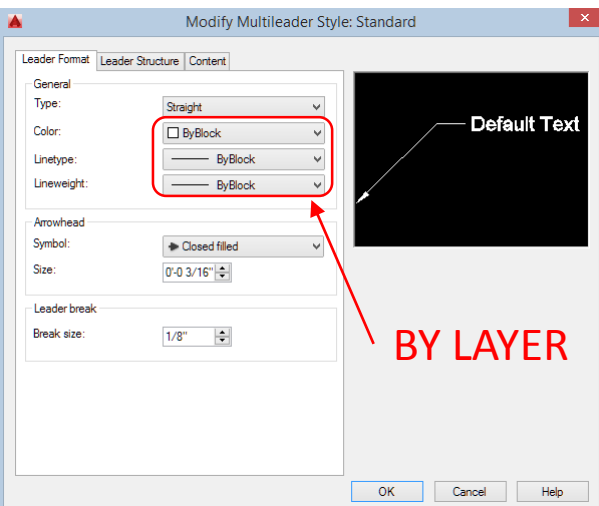# Multileader Editor

Multileader Style Manager allows you to create and modify styles used to create multileader objects.

Access: Down arrow in Leaders window.

Resources: https://knowledge.autodesk.com/support/autocad-civil-3d/learn-explore/caas/documentation/CIV3D/2012/ENU/filesACR/WS1a9193826455f5ff104d7f510f19418261-62b0-htm.html
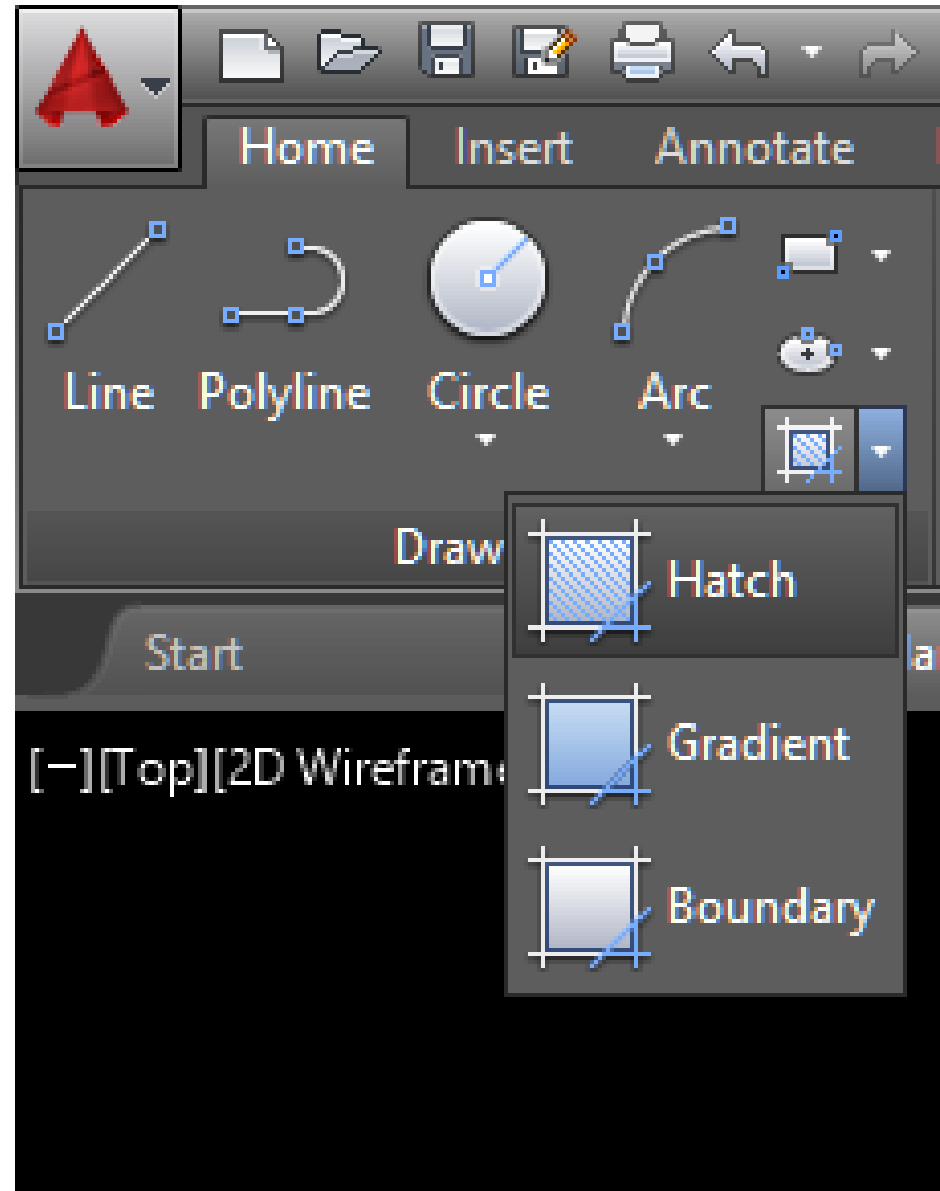

BY LAYER

Set scale factor based on scale of final drawing

Hatches

Hatches are used to fill an enclosed area or selected object with a pattern. Use *hatches* in section views to indicate specific materials. Also used to add patterns or shading to elevations or plans.

Access: Click hatch button in Home tab or type "h".

Resources:
https://knowledge.autodesk.com/support/autocad/learn-explore/caas/CloudHelp/cloudhelp/2015/ENU/AutoCAD-Core/files/GUID-27C104F2-B687-4025-B50B-A58E37329832-htm.html

Edit Hatches

Hatch Creation tab pops up when the hatch command is active or when a hatch is selected. Here you can edit hatch patterns, scales, angles, origin and definition.

Access: Click Option down arrow in Hatch Creation tab or type "he".
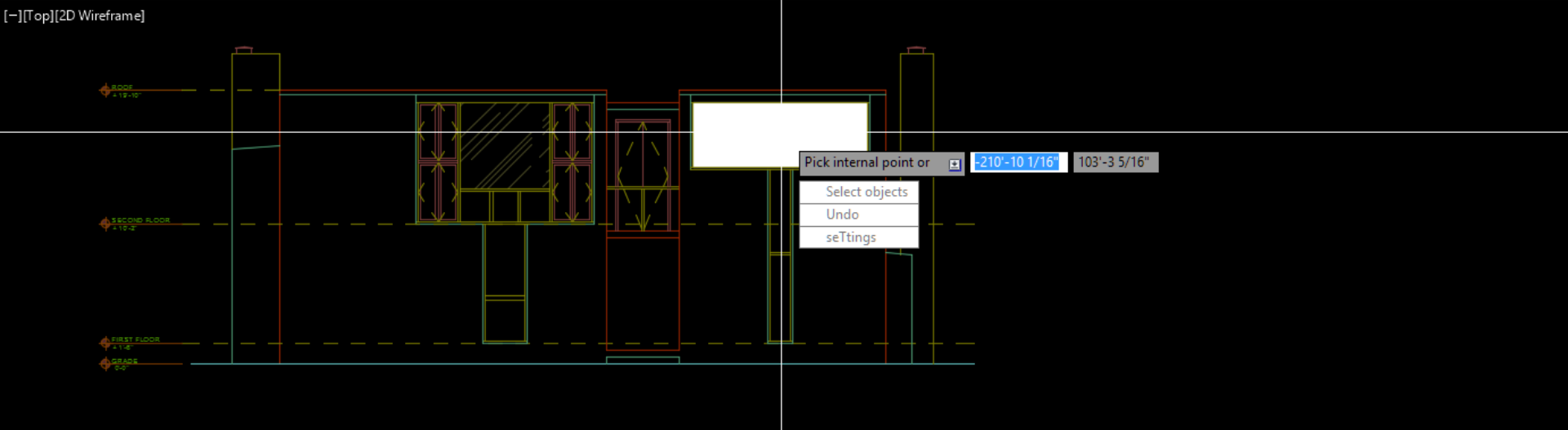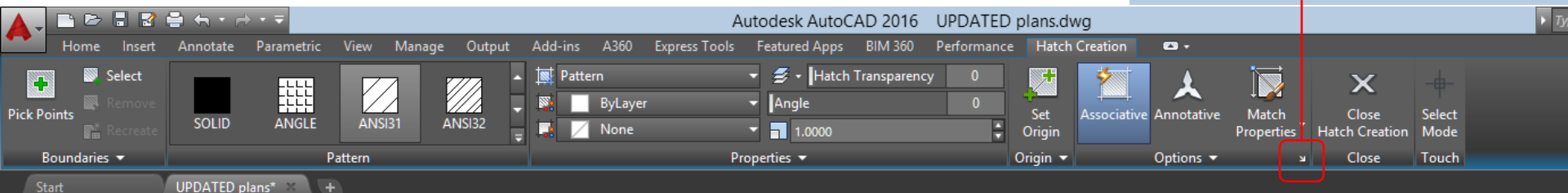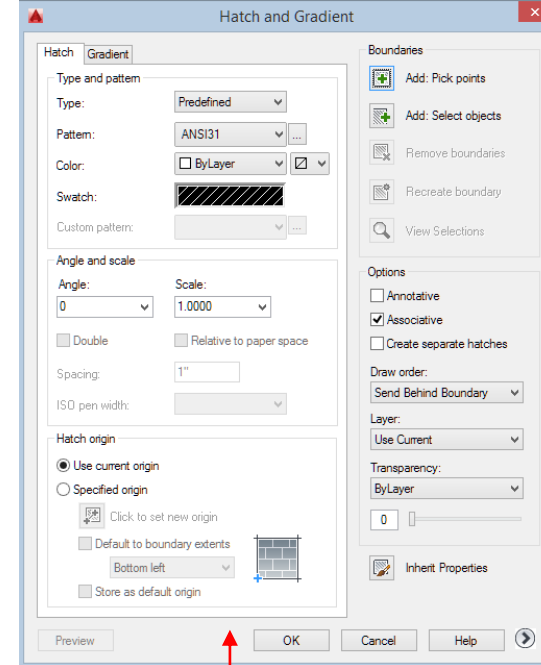
Orthographic Projection: Process

Vertical Lines: Use *X-Lines* to project features from floor plans to elevations
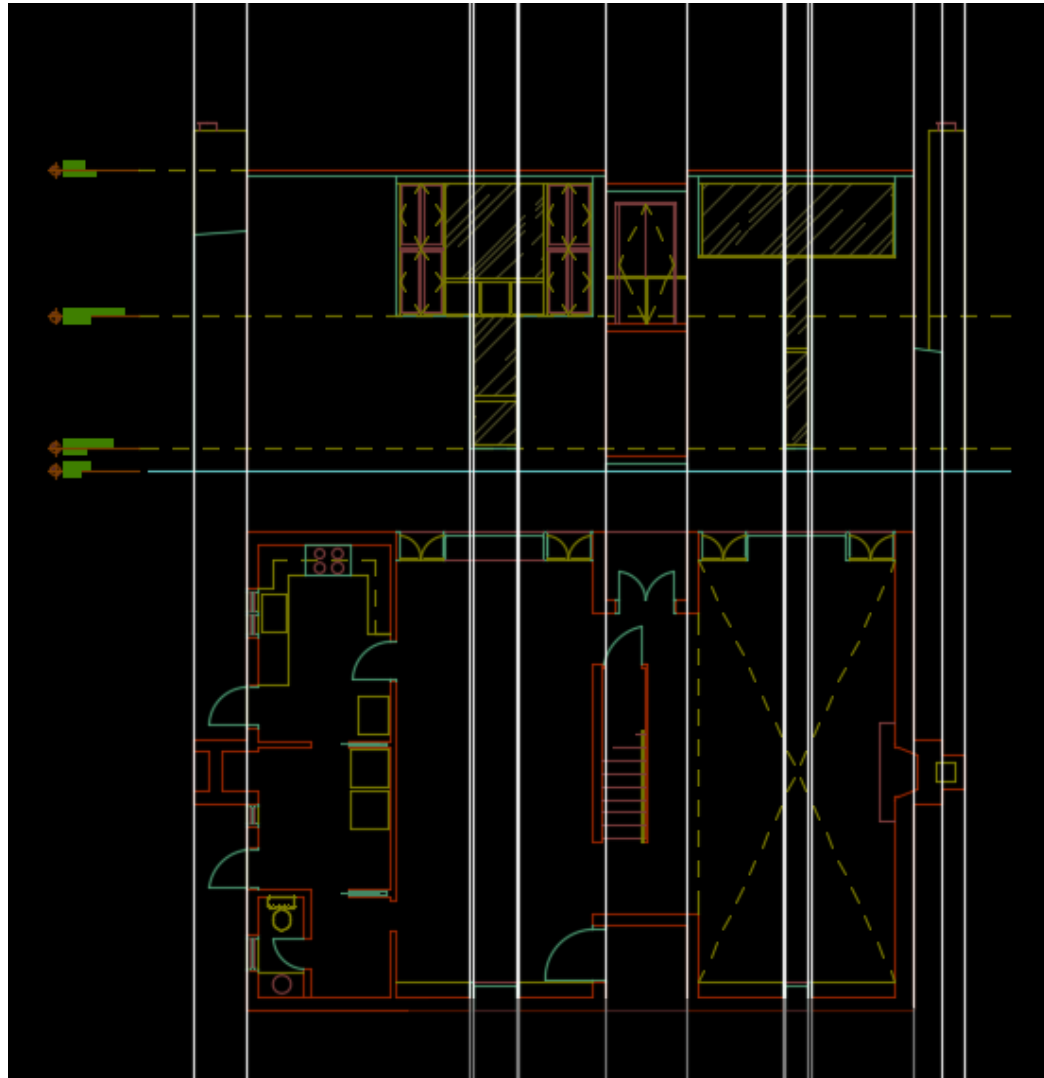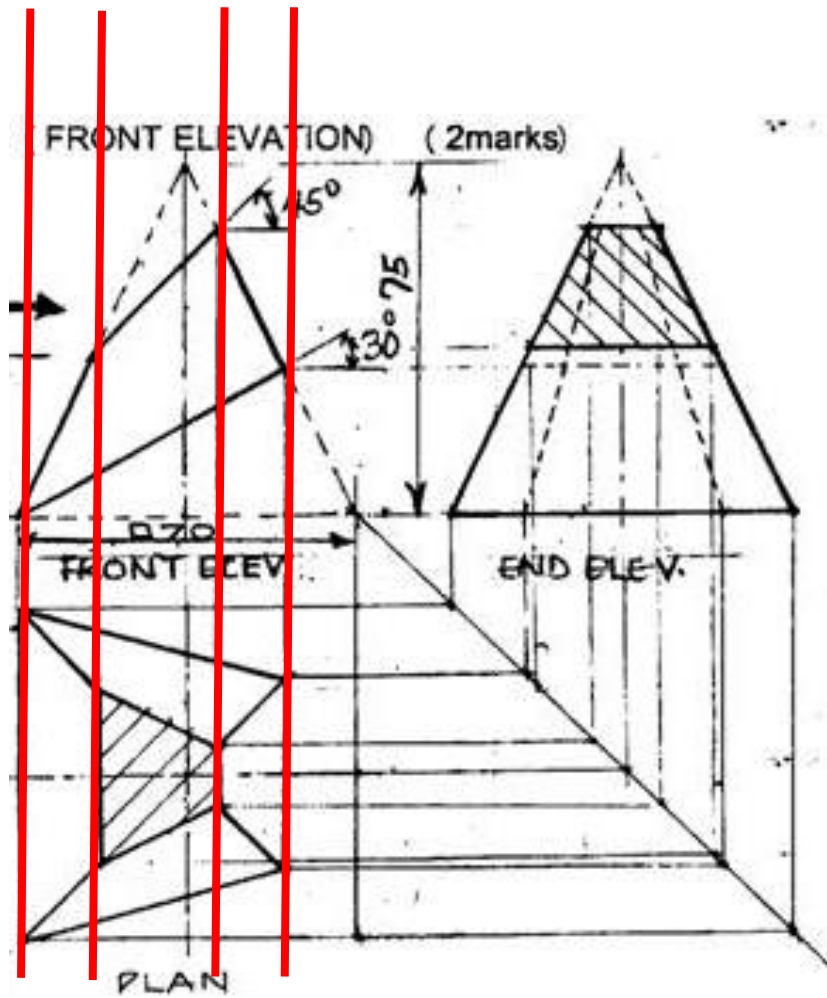
Orthographic Projection: Process

Horizontal Lines: Create *X-Lines* to project building regulating lines (floor heights, dimensions)

ESHERICK HOUSE
204 SUNRISE LANE
PHILADELPHIA, PA 19118
LOUIS KAHN , 1961
NOTES:

NEW YORK CITY
COLLEGE OF
TECHNOLOGY

DRAWN BY:
YOUR NAME

DATE:

SCALE:

EXTERIOR
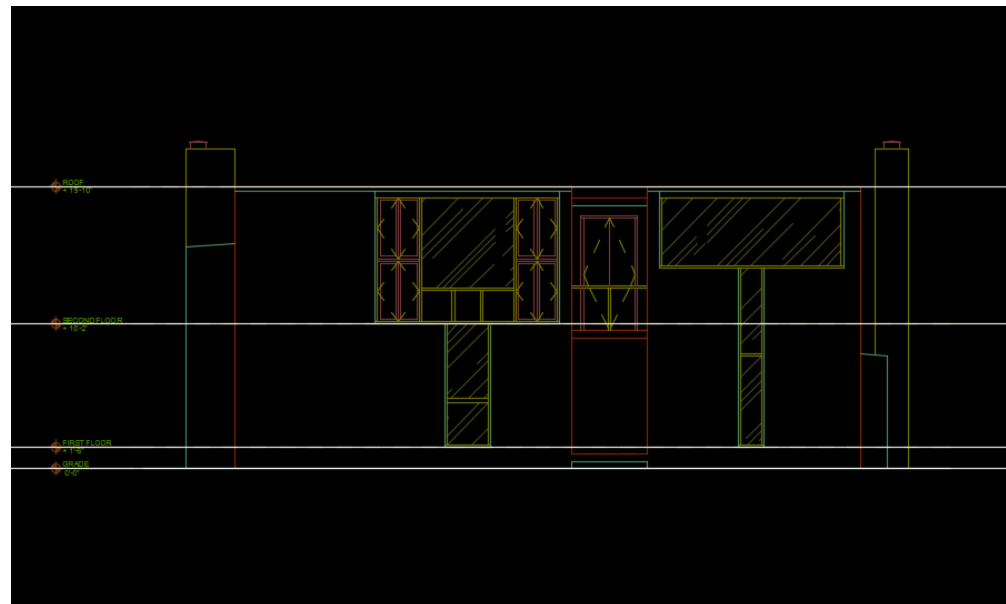ELEVATIONS

A-201
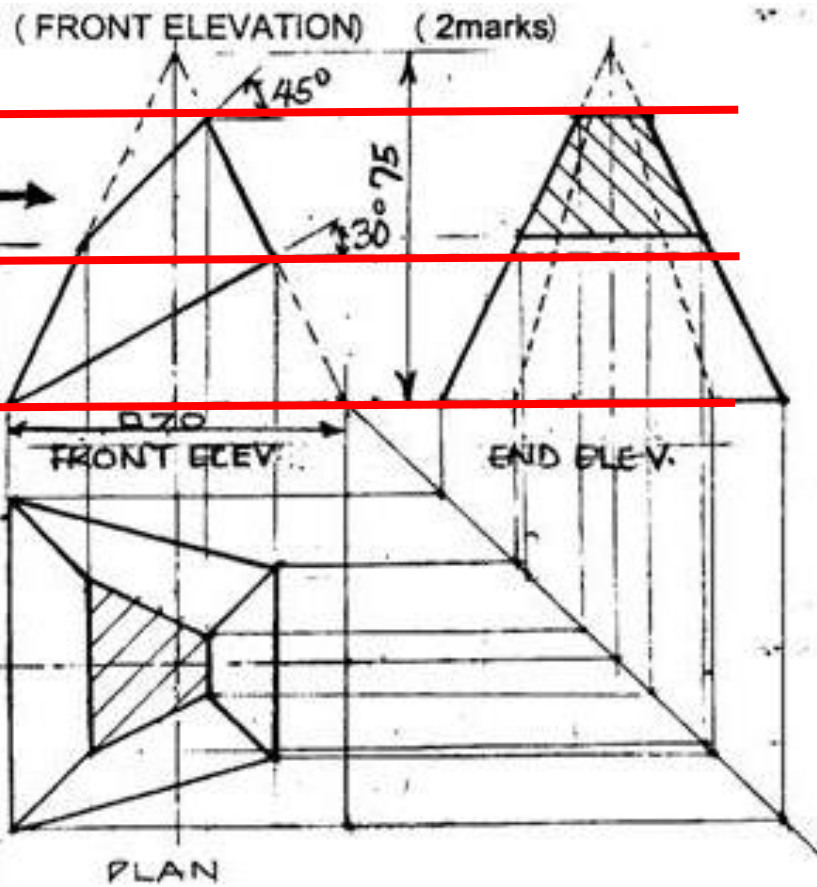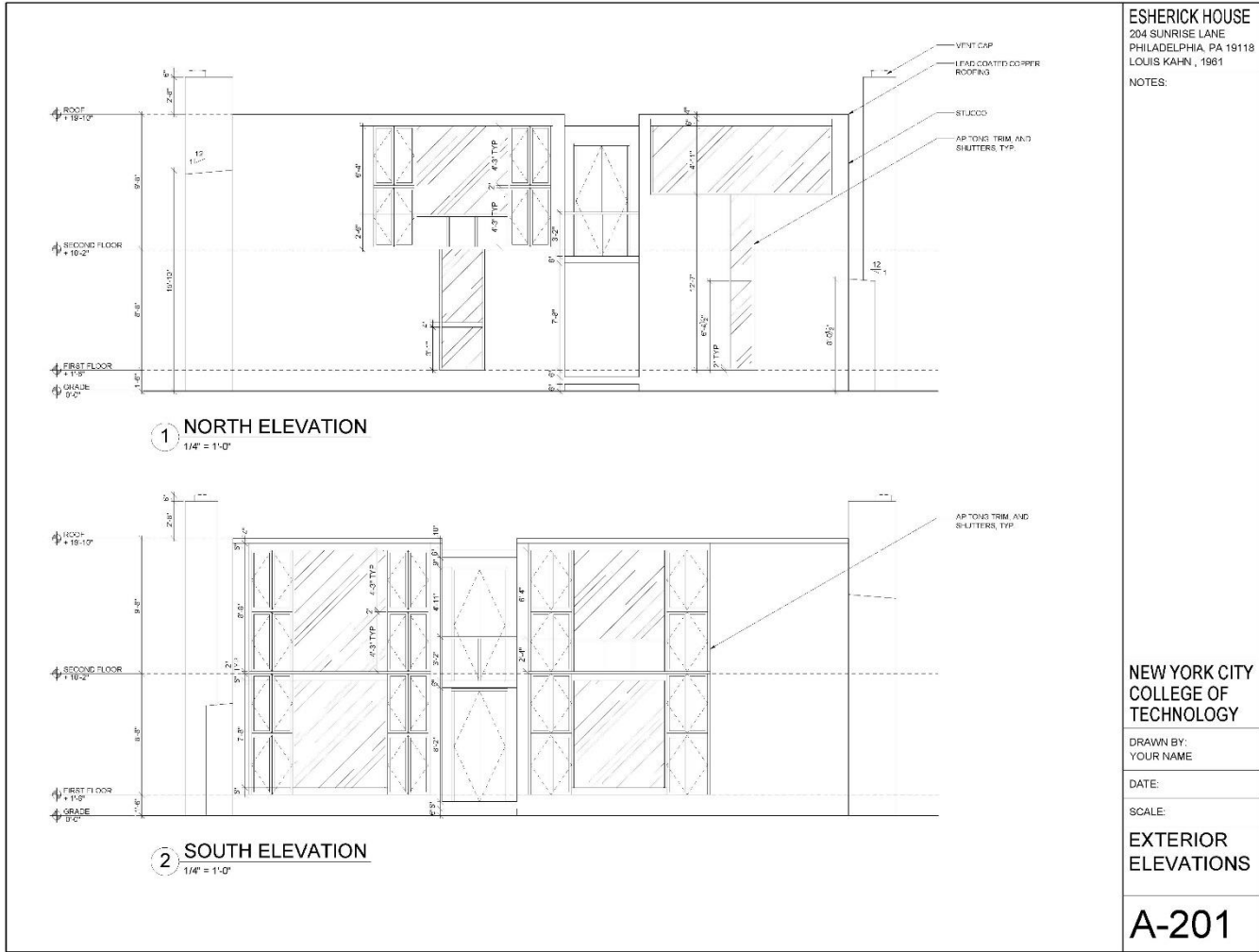
Process:

1.Regulating Lines
- a)Building Control Lines
- b)Overall Dimensions

2.Components
- a)Walls
- b)Doors
- c)Windows
- d)Fixtures

3.Annotation
- a)Symbols
- b)Dimensions
- c)Notes

4.Sheet
- a)Titles
- b)Titleblock

Extra Credit!!!

LEAD COATED COPPER
ROOFING

LEAD COATED COPPER
SILL, TYP.

STUCCO

APITONG TRIM, AND
SHUTTERS, TYP.

ROOF
+ 19'-10"

9'-8"
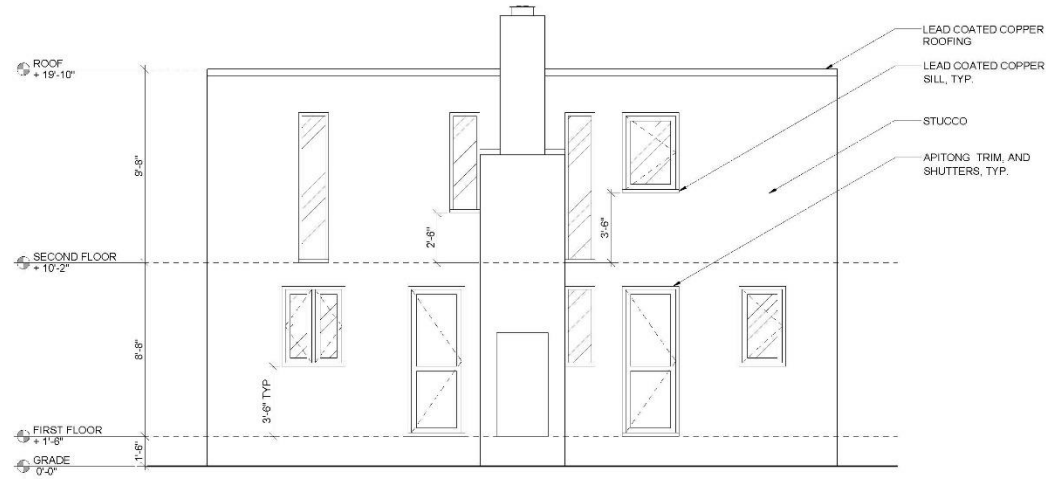
2'-6"

3'-6"

SECOND FLOOR
+ 10'-2"

8'-8"

3'-6" TYP.

FIRST FLOOR
+ 1'-6"

1'-6"

GRADE
0'-0"

1 EAST ELEVATION
1/4" = 1'-0"

1
A301

ROOF
+ 19'-10"

9'-8"

SECOND FLOOR
+ 10'-2"

8'-8"

FIRST FLOOR
+ 1'-6"

1'-6"

GRADE
0'-0"

2 WEST ELEVATION
1/4" = 1'-0"

NEW YORK CITY
COLLEGE OF
TECHNOLOGY

DRAWN BY:
YOUR NAME

DATE:

SCALE:

EXTERIOR
ELEVATIONS

A-202

Assignment Specifications:

- Email your progress drawing at the end of this class.   *You must use your City Tech email address and email to the gmail submission email address. Include the assignment title in the email subject line.
- Name files: Last Name First Name – Assignment # Assignment Title.
- Example: Anderson Nicole – Assignment 8 First and Second Floor Plans
- Email final submission *BEFORE THE START OF THE NEXT CLASS*
- Submit 8.5"x11" plot of each drawing *AT THE START OF THE NEXT CLASS*- bind/staple as required