

ARCH 2331 BUILDING TECHNOLOGY II



Class Overview:

Discussion/Lecture:

- Virtual and in person class meetings
- Quiz's, sketchbook, Readings, Final examination
- PowerPoint Course introduction
- Go over site requirements
- Assignment rubric review
- Introduce drawings site assignment

Class Overview:

Lab/Project development:

- LoGo reviews
- CAD basics
- image importing
- CAD Scale Factors
- Develop site assignment (Test uploaded)
- Develop grid assignment (Test uploaded)



Class Overview:

Upcoming Events

- Printing in CAD
- XREF in CAD
- structural systems
- grids schematic design and overlays
- structural system spacing

Assignments and due dates

- Assignments are typically due on the Tuesday 10pm.
- all submissions are made to blackboard
- Late submissions will receive penalties
- Submissions typically no longer available on blackboard after one week

Quiz's and sketchbook/notebook

Quiz's:

- ~~Descriptions and identification of multiple building assemblies (walls, roofs, foundation, etc.)~~
- Sketchbook submission
- Starting promptly at the beginning of class

Sketchbook/Notebook:

- Required from this class on
- Include notes and sketchs
- Entries should include pages need to include your responses to readings and lectures/discussions
- Sketchbook will be collected and graded at approximately 4 times over the semester

Readings and Note Taking:

Readings:

- Are required
- Your Sketchbook need to include information from your readings
- The required textbooks are listed in the syllabus and on open lab
- Follow BT1 note taking requirements and strategies for your readings
- Reading list OpenLab link:

<https://openlab.citytech.cuny.edu/bt2-2022s/support-material/readings/>

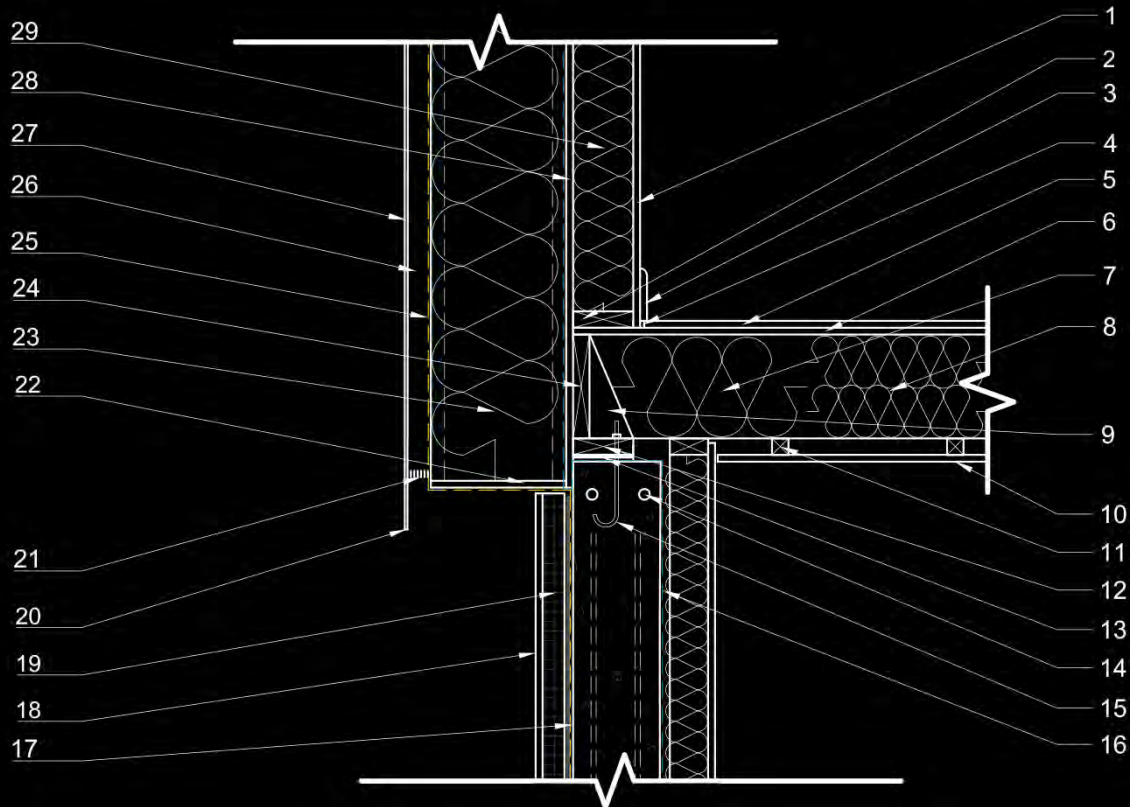
Note Taking:

- Follow BT2 note taking requirements and strategies
- Notes on:
 - Class Lectures
 - Readings
 - Digital (AutoCAD) tools
- Note Taking OpenLab link:

<https://openlab.citytech.cuny.edu/bt2-2022s/support-material/note-taking/>

Final examination:

- One hour Minimum exam
 - 100+ questions, wall section detail identifications
 - five general questions
 - Multiple short answer questions



ArchTech Student Resources

Workshop Recordings – Winter 2022

AUTODESK AUTOCAD BOOTCAMP MONDAYS WEDNESDAYS THURSDAY FRIDAYS 7:00 PM - 8:00 PM INSTRUCTOR: HTO RODRIGUEZ	 SCAN TO REGISTER
RHINO + RENDERING WORKSHOP MONDAYS TUESDAY WEDNESDAYS 11:30 AM - 12:30 PM INSTRUCTOR: JOE CARDENAS	 SCAN TO REGISTER
PORTFOLIO WORKSHOP MONDAYS WEDNESDAYS FRIDAYS 3 PM - 4 PM INSTRUCTOR: LAURIN MOSELEY	 SCAN TO REGISTER

JAN 3RD INTRODUCTION TO AUTOCAD	JAN 5TH AUTOCAD WORKING WITH REFERENCES	JAN 6TH AUTOCAD WORKING WITH BLOCKS	JAN 7TH ANNOTATING
JAN 10TH HATCHING	JAN 12TH PRINTING SETTINGS	JAN 13TH FROM 2D TO 3D AUTOCAD	JAN 14TH INTRO TO 3D MODELING

JAN 3RD RHINO MODELING: SURFS VS MESHES VS SUBD	JAN 4TH RHINO MODELING: FORM MODELING & INTRO TO GRASSHOPPER	JAN 5TH VRAY: INTRO & CLAY RENDERING
JAN 10TH VRAY: INTERIOR RENDERING SETUP	JAN 11TH LUMION: INTRO & APPLICATION	JAN 12TH LUMION: RENDERING & ANIMATION

JAN 3RD INTRO TO CREATING AN INDESIGN PORTFOLIO & WORKFLOW MANAGEMENT	JAN 5TH USING ILLUSTRATOR & PHOTOSHOP WITHIN INDESIGN	JAN 7TH QUICK EDITING TRICKS FOR GRAPHICS AND CONSISTENCY
JAN 10TH BOARD MAKING, FADING, PLACEMENT & NARRATIVES INTRO TO ONLINE PORTFOLIOS	JAN 12TH CREATING ONLINE PORTFOLIOS ON ADOBE PORTFOLIO AND OTHER PLATFORMS	JAN 14TH PORTFOLIO REVIEW

NYCCTfab Winter 22 Workshops
DIGITALDEXTERITY

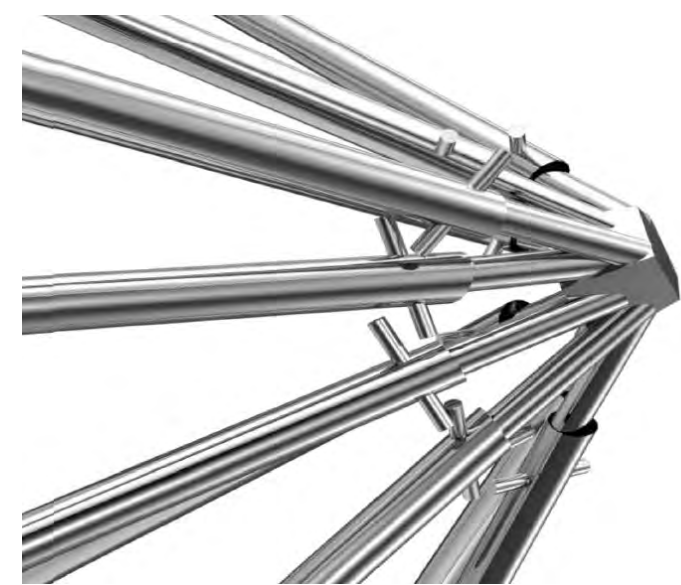
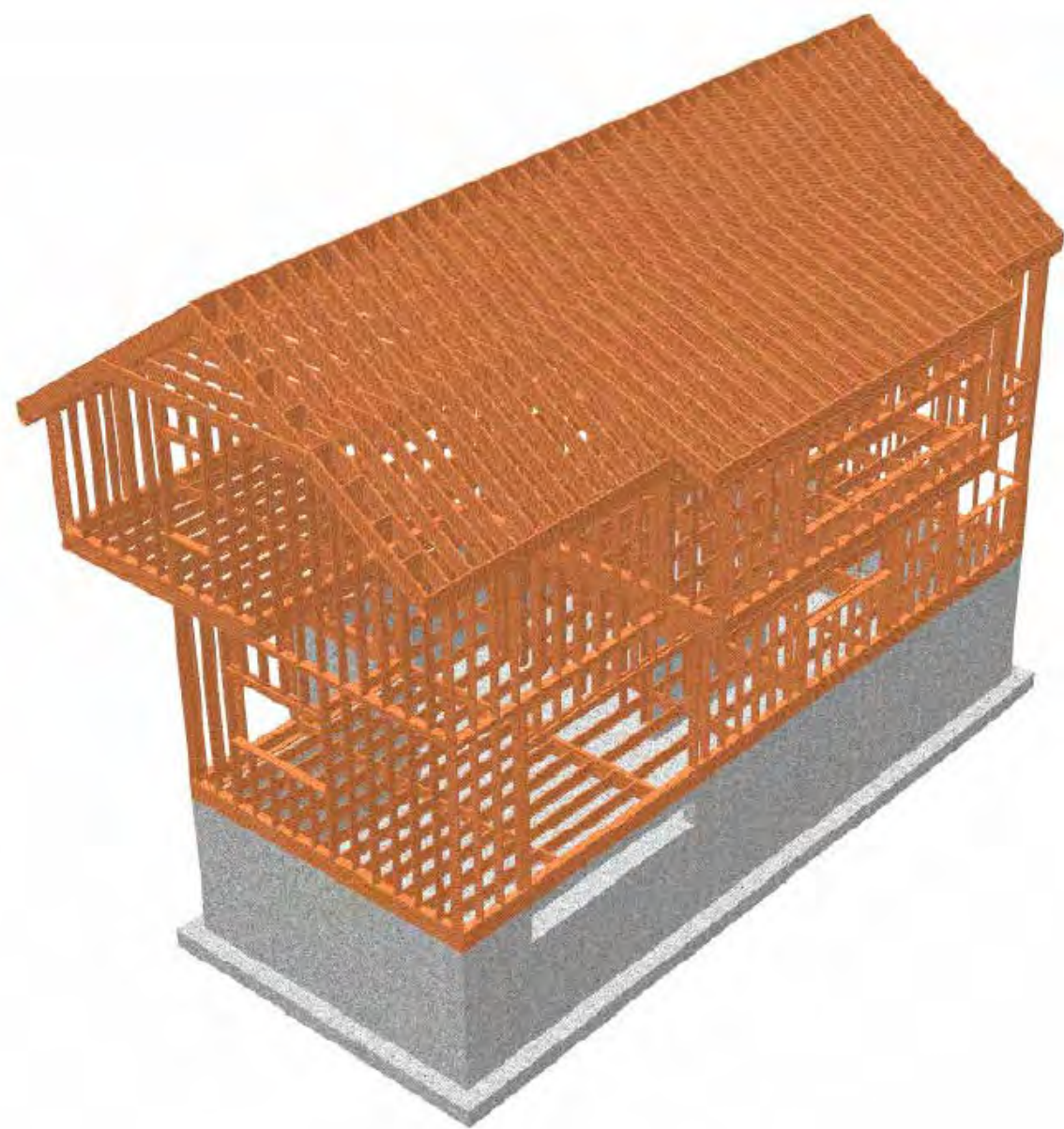
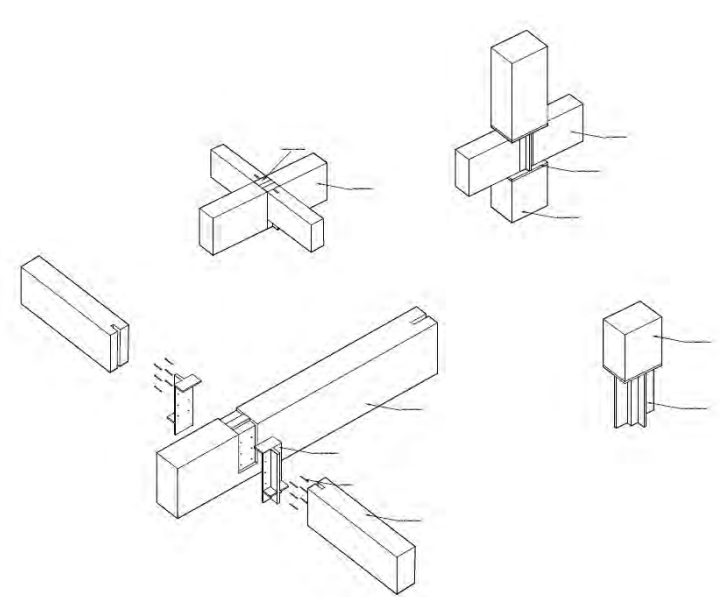
Past Workshops

Fall 2021 Workshop Series
ArcGIS Pro – Spring 2021

<https://archtechnycct.com/workshop-recordings/>



Assembly & Performance



working in three dimensions

material is the substance
of architecture



technology is the manipulation
and assembly of the material



"Private Gymnasium Pavilion & Guest Unit / Malan Vorster Architecture Interior Design"
19 Jan 2022 ArchDaily. Accessed 3 Feb 2022.
<<https://www.archdaily.com/952687/private-gymnasium-pavilion-and-guest-unit-malan-vorster-architecture-interior-design>> ISSN 0719-8884

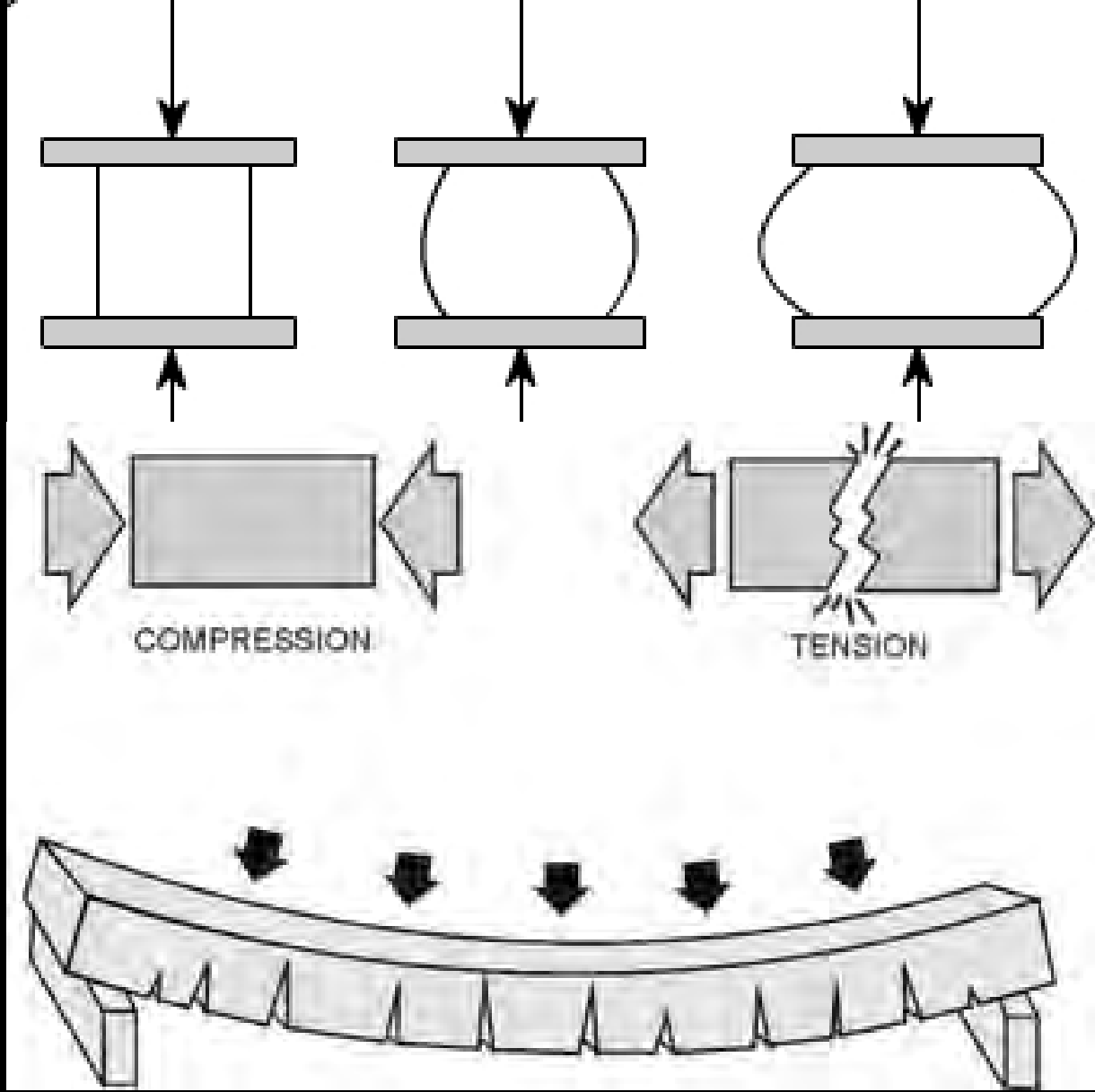
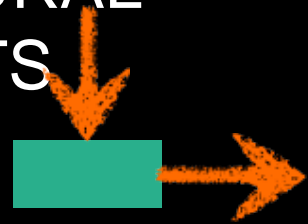
RELATION OF MATERIAL TO architecture

COMPRESSION:
CRUSHING
FORCE

TENSION:
STRETCHING/PUL
LING FORCE

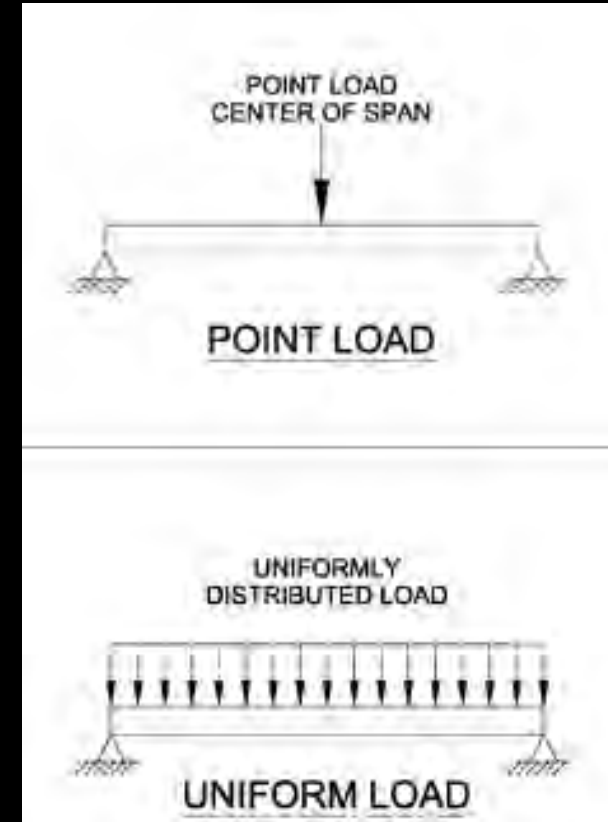
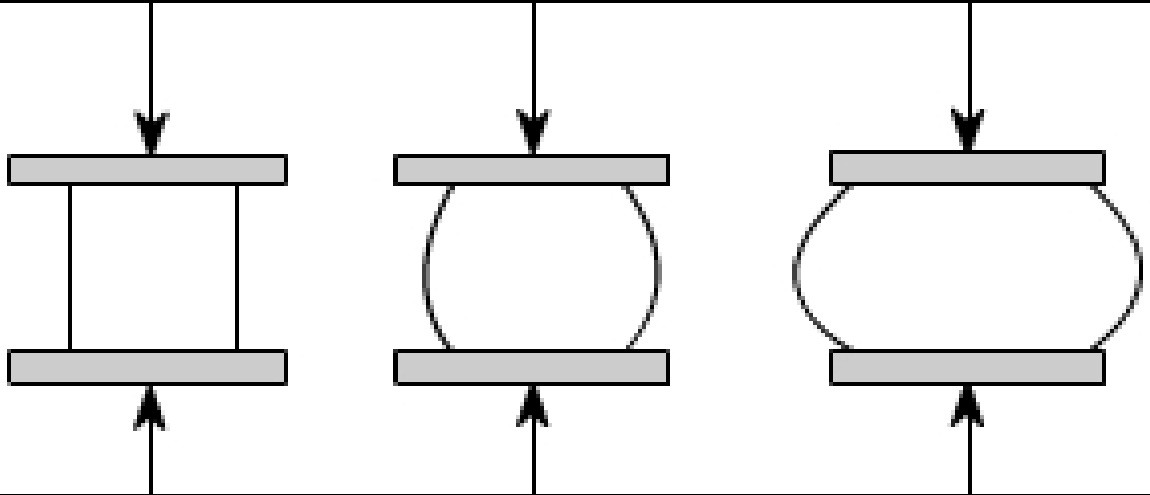


BOTH
COMPRESSION &
TENSION ARE
ACTING ON MOST
STRUCTURAL
ELEMENTS



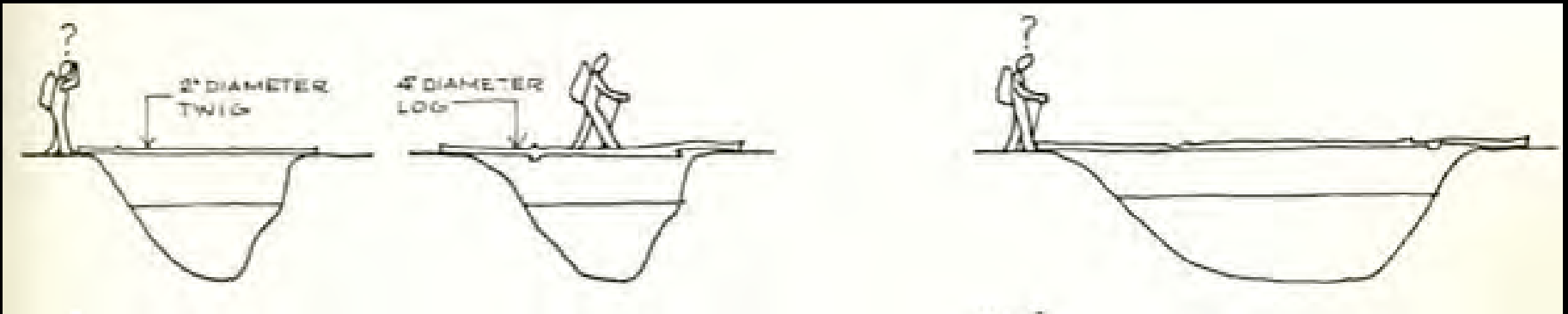
forces on buildings

compression & tension



forces on buildings

loads + stresses



FORCES ON BUILDINGS

loads + stresses

CONCRETE (UNREINFORCED)

WORKING STRENGTH IN

COMPRESSION 1000 - 4000 psi
TENSION 0 psi

DENSITY: 145 pcf

STEEL

WORKING STRENGTH IN

COMPRESSION 24,000-43,000 psi
TENSION 24,000-43,000 psi

DENSITY: 490 pcf

summary of properties of Materials



<https://www.semanticscholar.org/paper/Behavior-of-Unreinforced-Concrete-Masonry-Infill-By-Azzi/dad2389b1b37415f27a77b7717c77095aa649b72>



<https://pxhere.com/en/photo/459266>

wrap up

FUNDAMENTAL TO THE PRACTICE OF ARCHITECTURE IS THE IMMERSION IN AND MASTERING OF THE POTENTIAL OF MATERIALS



- ✱ formation of elements of construction governed by required resistance of stresses
- ✱ selection of materials is driven by their structural advantages and their aesthetic qualities
- ✱ innovation is rooted in an evolving knowledge and sophisticated manipulation of materials and their assembly
- ✱ knowledge and mastery are pursued through three dimensional investigation and exploration

Module A [DeSilver House]



Assignment rubric review

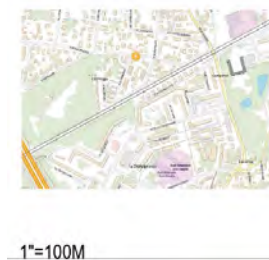
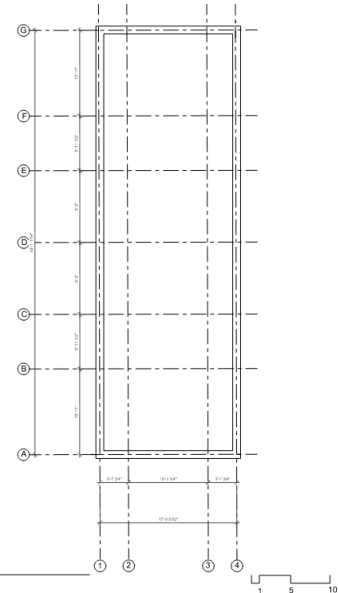
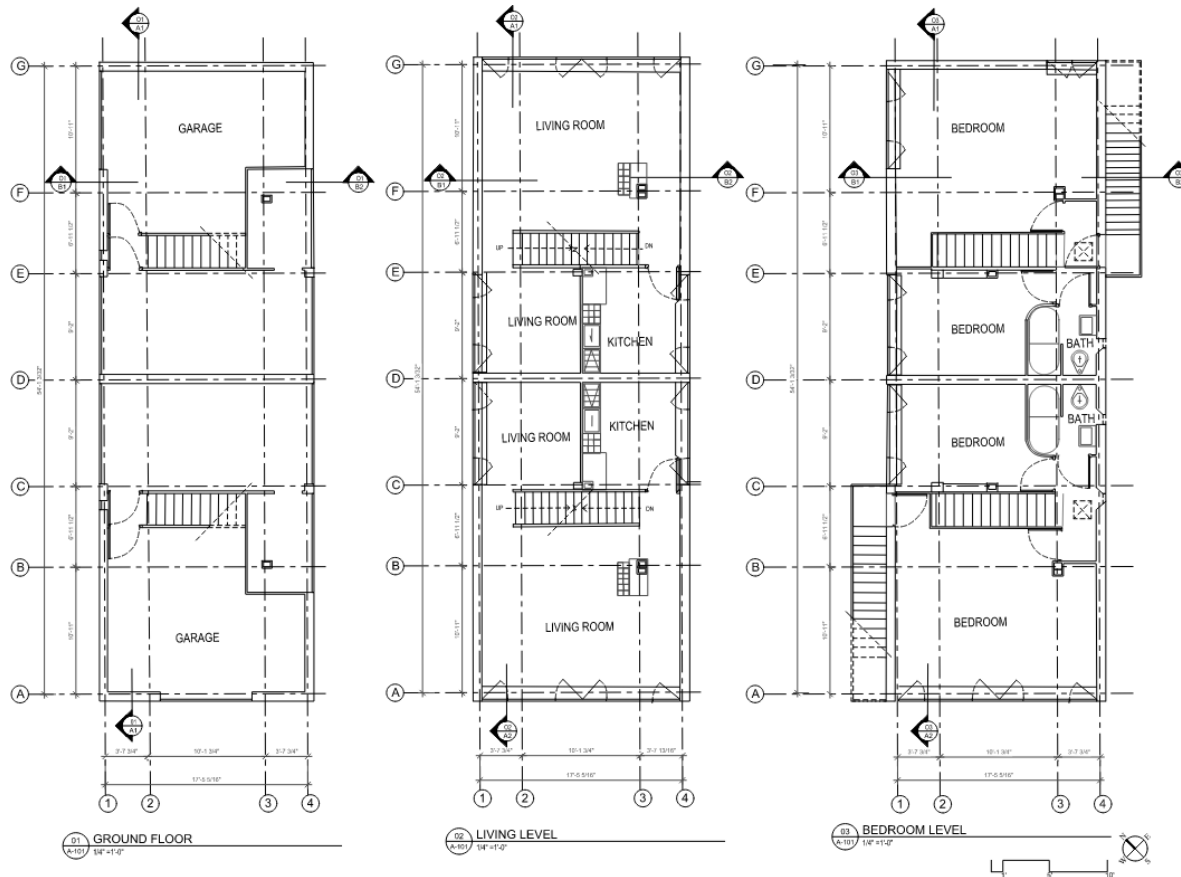
typically rubric points are distributed as follows:

- Novice = 0%
- Basic = 30% to 60%
- Developing = 65% to 75%
- Competent = 85%
[meets the course requirements]
- Proficient = 90%
- Excellent = 100%

	Novice	Basic	Developing	Competent	Proficient	Excellent
Title block, & file organization	.5 (.5%) Only PDF or computer documents submitted	3 (3%) Unique title block to assignment "A"	7.5 (7.5%) Include all class. Your, and professor's information	8.5 (8.5%) Unique block to each drawing in assignment "A"	9 (9%) x-ref integration	10 (10%) Create your own fictitious company include your portrait in the titleblock
Scale and Placement	0 (0%) -Zoom to fit scale used -no scale indicated -no scale graphic	4.5 (4.5%) Location given	11.25 (11.25%)	12.75 (12.75%)	13.5 (13.5%) -Scale indicated on drawing sheet and on individual drawings -Skill graphics included connections	15 (15%)
Annotation	0 (0%) no information	4.5 (4.5%) -incomplete dimensions	11.25 (11.25%) Text Height/Uniformity /Style	12.75 (12.75%) Column lines all dimensioned	13.5 (13.5%)	15 (15%) All rooms name using graphic standards
Graphics	2.5 (2.5%)	15 (15%) -poor line weights	37.5 (37.5%)	42.5 (42.5%) Accuracy	45 (45%) -Consistent line weight usage -Cutlines darkest	50 (50%) using all graphic conventions
Architectural ideas	1 (1%)	4 (4%)	7.5 (7.5%) Accuracy	8.5 (8.5%) All assignment "A" drawings match	9 (9%) Only enough detail for the purpose of scope	10 (10%) Big picture and find details woven together

Assignment A

Grid plans & site plan



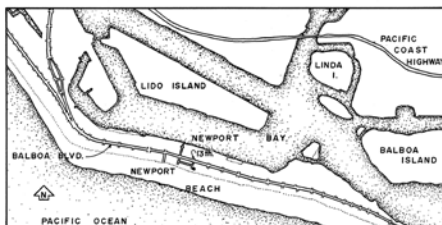
Go over site requirements

Examples:

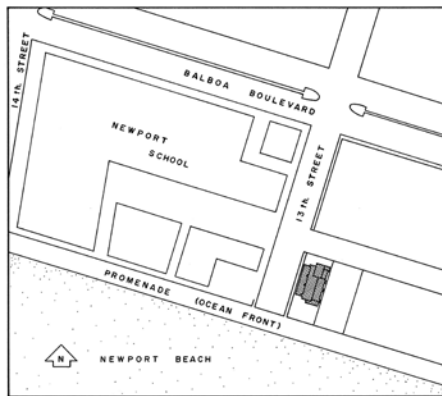
TRIM LINE

MAR 19 1986

THE LOVELL BEACH HOUSE



LOCATION MAP
SCALE 1"=24000'
UNITED STATES GEOLOGICAL SURVEY - 1965



AREA MAP
SCALE 1"=100'
UNITED STATES GEOLOGICAL SURVEY - 1965

THE LOVELL BEACH HOUSE, R.M.SCHINDLER'S MOST IMPORTANT BUILDING, DATING FROM 1926, IS A PRECURSOR OF POST-WAR BRUTALIST DESIGN. IT IS BUILT OF CONCRETE. THE HOUSE IS LIFTED ABOVE ITS BEACH SITE AND CRADLED IN FIVE CONCRETE FRAMES IN THE SHAPE OF FIGURE 8&. THESE WERE POURED IN PLACE. THE ENCLOSED AREAS WERE SHOP-FABRICATED AND HOISTED INTO POSITION. THE PLAY OF FORMS IN THE ADVANCING AND RECEDING PLANES ARE RELATED TO THE DE STIJL MOVEMENT BEGUN IN HOLLAND IN 1917.

RECORDED BY
THE UNITED STATES NATIONAL PARK SERVICE

THIS PROJECT WAS UNDERTAKEN BY THE HISTORIC AMERICAN BUILDINGS SURVEY IN CO-OPERATION WITH THE UNIVERSITY OF SOUTHERN CALIFORNIA, THE UNIVERSITY OF CALIFORNIA AT LOS ANGELES, AND THE UNIVERSITY OF CALIFORNIA AT SANTA BARBARA-MEASURED AND DRAWN AUGUST, 1968, UNDER THE DIRECTION OF JAMES C. MASSEY, CHIEF OF H.A.B.S., AND BY ROBERT C. GIEBNER (UNIVERSITY OF ARIZONA), PROJECT SUPERVISOR, WITH STUDENT ASSISTANT ARCHITECTS RALSTON H. NAGATA (UNIVERSITY OF HAWAII), STANLEY A. WESTFALL (UNIVERSITY OF SOUTHERN CALIFORNIA), AND NIKOLAOS PAPADEMETROPOULOS (UNIVERSITY OF CALIFORNIA AT LOS ANGELES), AT THE LOS ANGELES, CALIFORNIA FIELD OFFICE.

DRAWN BY: ROBERT C. GIEBNER, DEL. 1968
SOUTHERN CALIFORNIA PROJECT
OFFICE OF ARCHEOLOGY & HISTORIC PRESERVATION
NATIONAL PARK SERVICE
UNITED STATES DEPARTMENT OF THE INTERIOR

NAME AND LOCATION OF STRUCTURE
THE LOVELL BEACH HOUSE
1242 WEST OCEAN FRONT
NEWPORT BEACH
ORANGE COUNTY
CALIFORNIA

SURVEY NO.
CA-1986

HISTORIC AMERICAN BUILDINGS SURVEY
SHEET 1 OF 10 SHEETS

DATE OF DRAWING
1968

TRIM LINE



DURA HOME

DATE: 01/15/2019
PROJECT: 1000 LAFAYETTE ST
LOCATION: MANHATTAN, NY 10017

PROJECT: 1000 LAFAYETTE ST

DATE: 01/15/2019

PROJECT: 1000 LAFAYETTE ST

DATE: 01/15/2019

PROJECT: 1000 LAFAYETTE ST

DATE: 01/15/2019

PROJECT: 1000 LAFAYETTE ST

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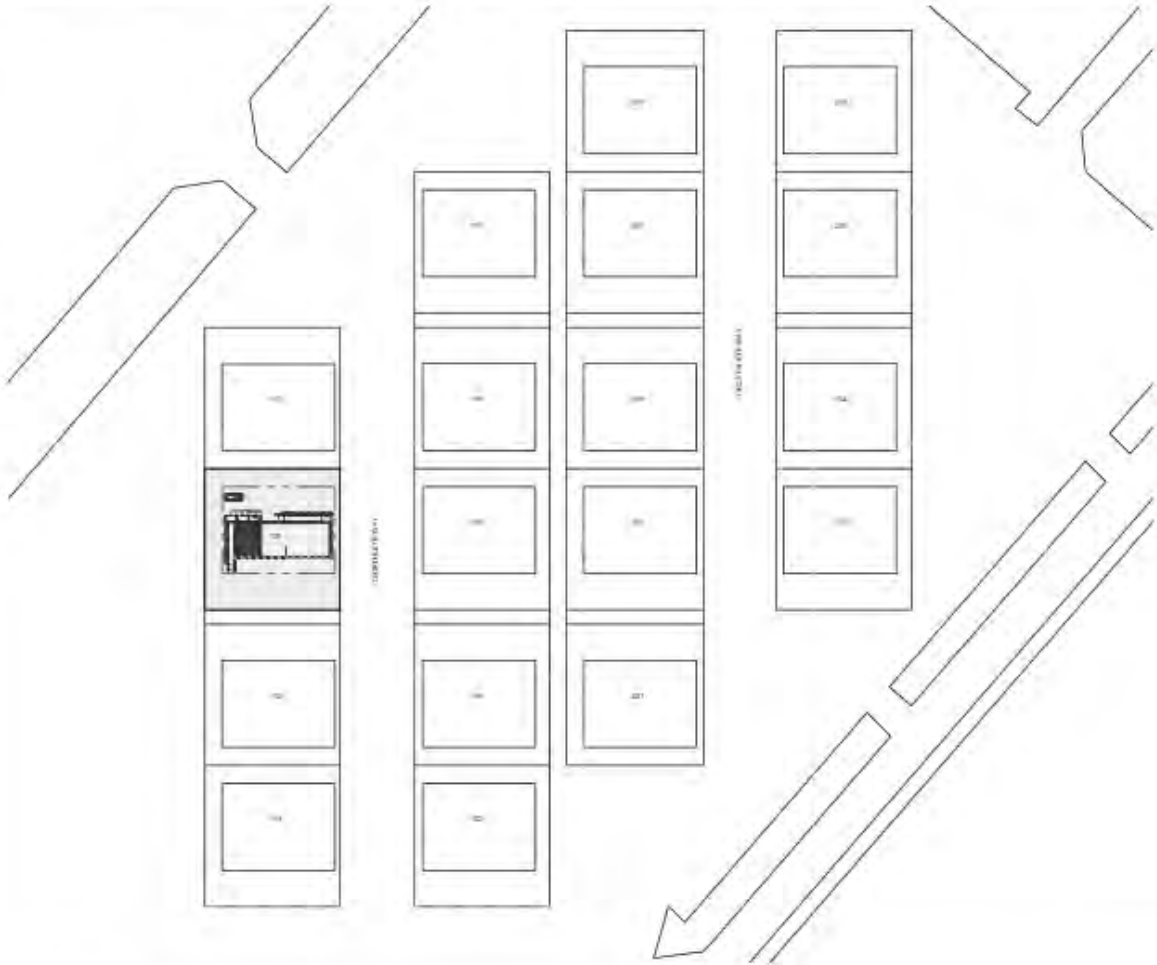
PROJECT: 1000 LAFAYETTE ST

DATE: 01/15/2019

PROJECT: 1000 LAFAYETTE ST

DATE: 01/15/2019

PROJECT: 1000 LAFAYETTE ST



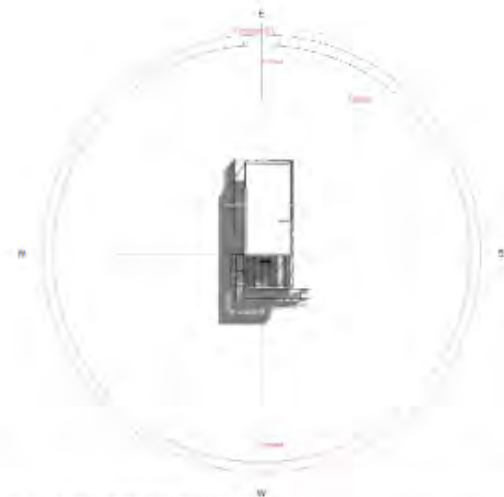
A1 SITE PLAN



SITE PLAN

G-104

GENERAL SHEET NOTES



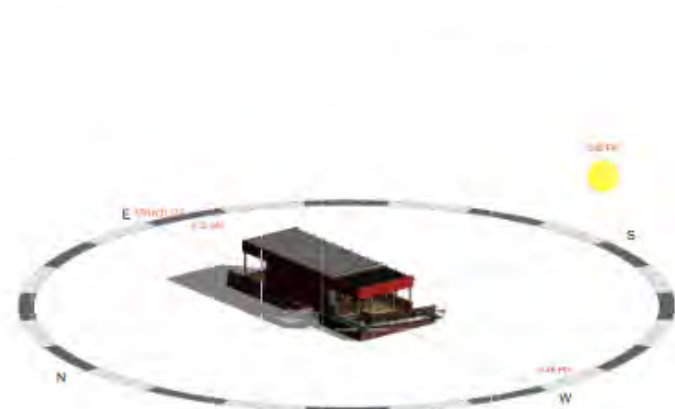
C1 9AM SOLAR SHADING



C3 9AM SOLAR SHADING



A1 3PM SOLAR SHADING



A3 3PM SOLAR SHADING



DURA HOME

FILE NAME:	DURADOMA
ADDRESS:	780 JAY ST BRONX, N.Y. 10451
CONTACT:	INFO@LIFE-COLLEGE.COM WWW.SOLARCOLLEGE.COM
CONSULTANT:	

U.S. DEPARTMENT OF ENERGY
SOLAR CALCULATION 2.0.0
WWW.SOLARCALC.COM



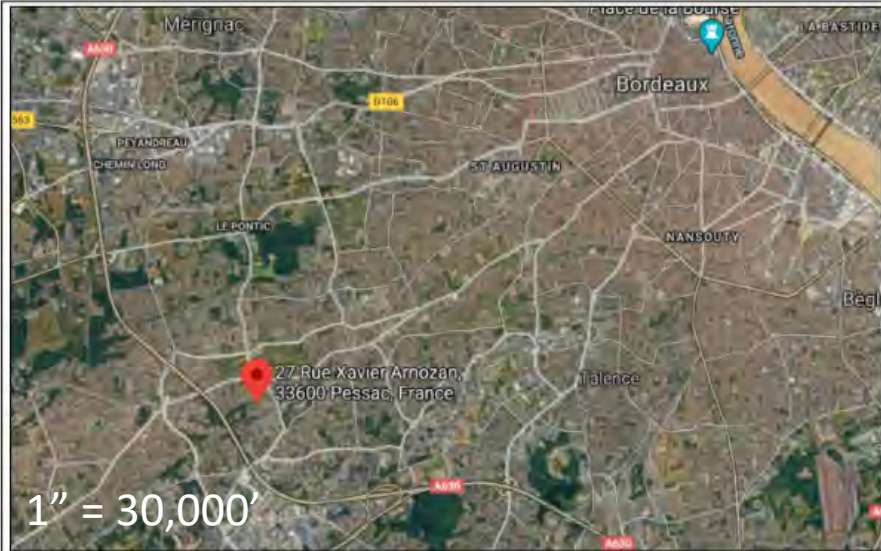
MARK	DATE	DESCRIPTION

LOT NUMBER:	LOT NUMBER 101
DRAWN BY:	CHARAL MARRINO
CHECKED BY:	Chen
DATE:	12/11/2011

EXTERIOR SHADING DIAGRAMS

G-125

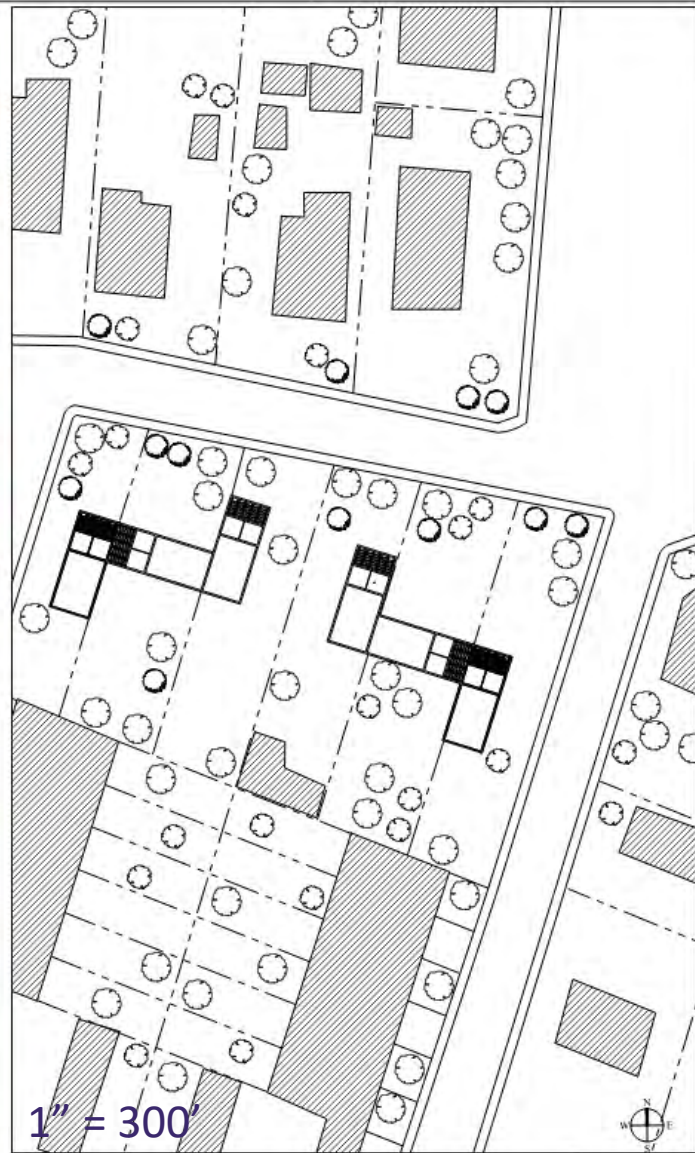
Assignment A



01 SITE MAP
 A-101 1" = 30,000'
 LAT. LONG. 44.78659, 4.647362
 ALT. 151.67 ABOVE SEA LEVEL



02 SITE MAP
 A-101 1" = 3,000'
 LAT. LONG. 44.78936, 4.647362
 ALT. 151.67 ABOVE SEA LEVEL

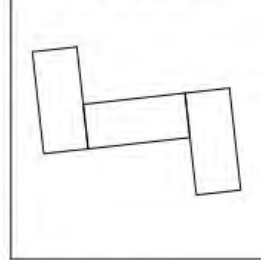


03 SITE PLAN
 A-101 1" = 300'
 LAT. LONG. 44.78936, 4.647362
 ALT. 151.67 ABOVE SEA LEVEL

ZIG-ZAG, MAISON
 27 rue Xavier Arnoz, 33600
 Pessac, France

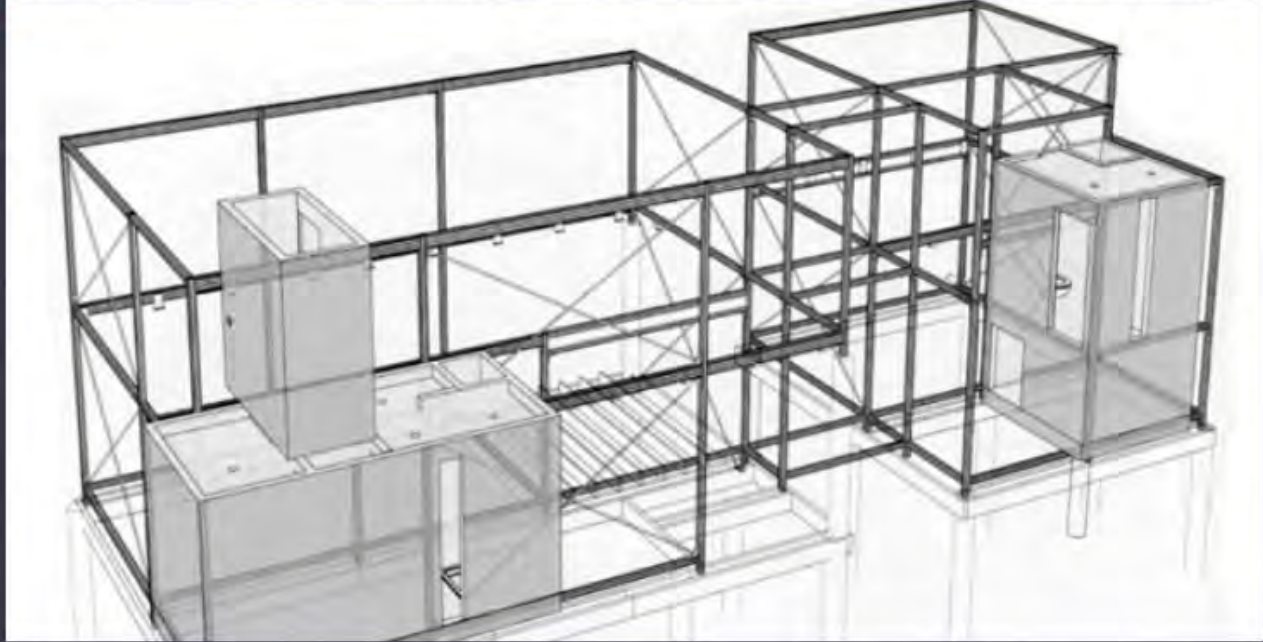
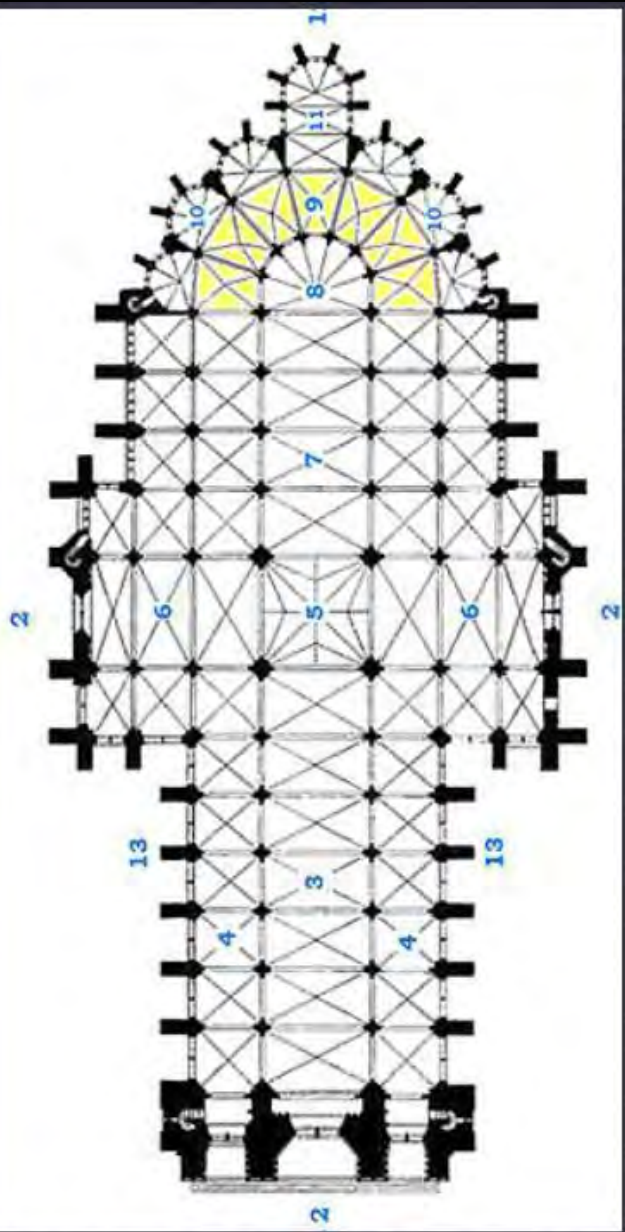


Student Name:
FARES, FAROUK
 Professor Name:
A.APTEKAR
 Course:
**BUILDING TECH II
 ARCH2331
 S2021**
 Backup Office:
 Department of Architectural Technology
 186 Jay Street, Brooklyn New York



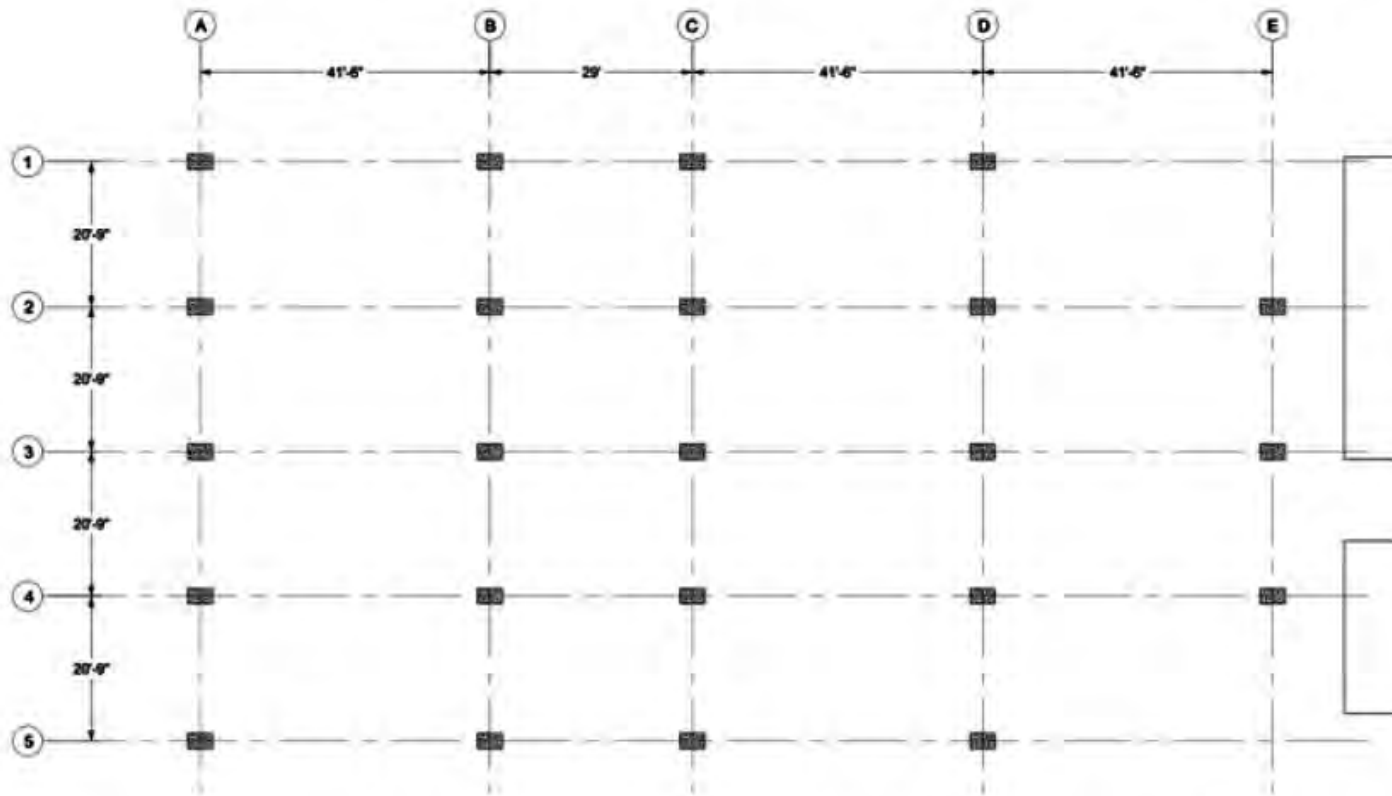
DATE OF THIS DRAWING	FEBRUARY 03, 2021
2021/02/04	

A-101 SITE MAPS	
SITE MAPS	
SEAL & SIGNATURE	DATE: 2021/01/17
	PROJECT NO: 2021_MODULE_A
	DRAWN BY: FAROUK FARES
	CHECKED BY:
	DRAWING NO:
	A-101.00
	SCALE: 1 OF 9

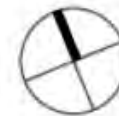


ORGANIZING SPACE

the grid



YALE ART GALLERY THIRD FLOOR PLAN

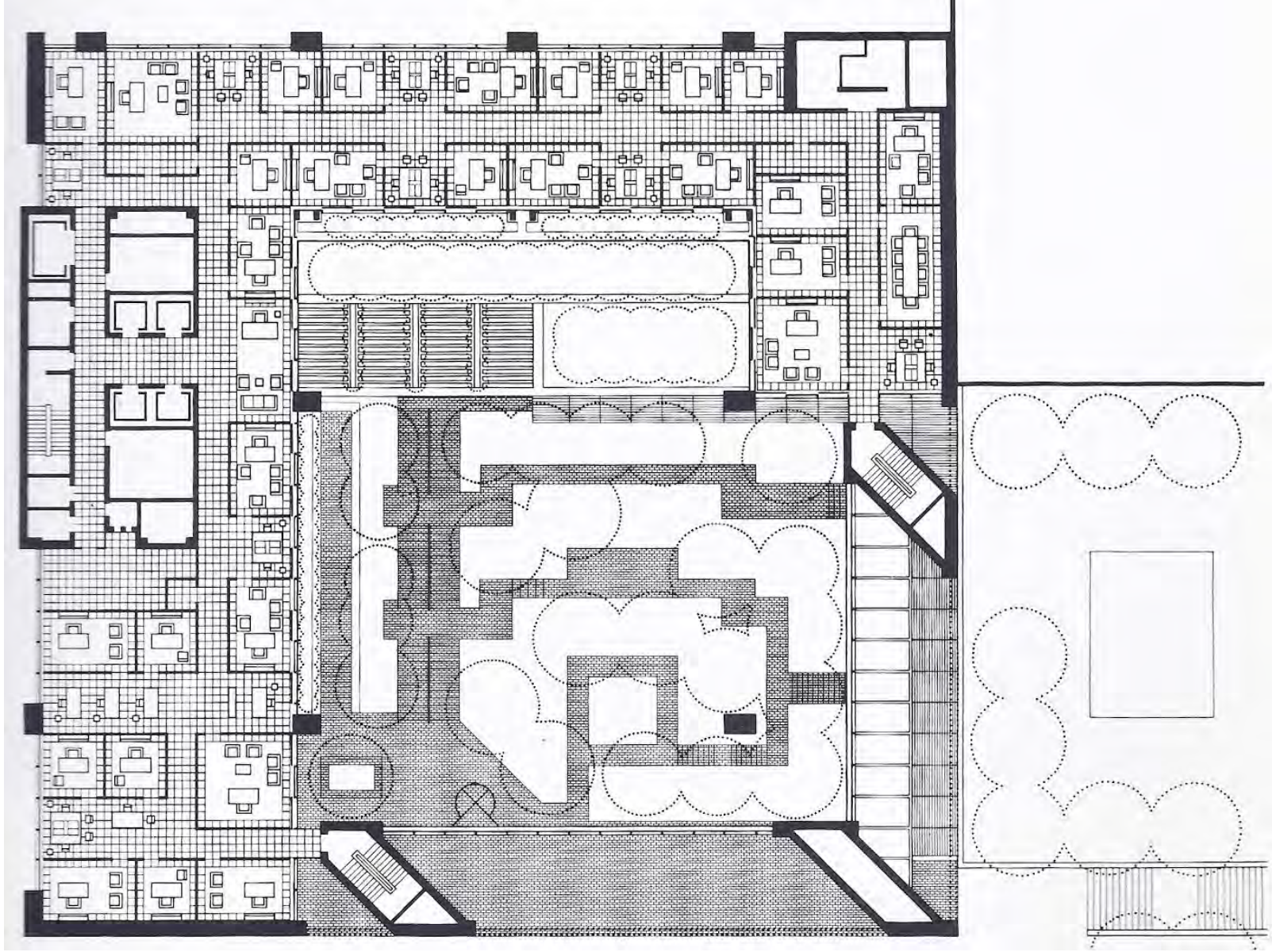


ABSTRACT ORDER

the grid

Assignment A

Grid plans & site plan



CAD Layer Guidelines:



http://www.usbr.gov/foia/Vol%20III/NCS-CAD_Layer_Guidelines.pdf

AIA CAD Layer Guidelines:

U.S. NATIONAL CAD STANDARD FOR ARCHITECTURE, ENGINEERING, & CONSTRUCTION (A/E/C) VERSION 3.1			© 2005, NATIONAL INSTITUTE OF BUILDING SCIENCES		
Layer Name	Description	New	Layer Name	Description	New
Architectural (continued)			Architectural (continued)		
AQ-CLNG-TEES	Ceiling: main tees		AQ-FLOOR-WDWK	Floor: architectural woodwork	
AQ-CLNG-SUSP	Ceiling: suspended elements		AQ-FURN	Furnishings	
AQ-COLS	Columns		AQ-FURN-FILE	Furnishings: file cabinets	
AQ-CONV	Conveying systems		AQ-FURN-FIXD	Furnishings: fixed in place	
AQ-DOOR	Doors		AQ-FURN-FREE	Furnishings: freestanding	
AQ-DOOR-FULL	Doors: full-height (swing and leaf)		AQ-FURN-PLNT	Furnishings: plants	
AQ-DOOR-PRHT	Doors: partial height (swing and leaf)		AQ-FURN-PNLS	Furnishings: system panels	
AQ-EQPM	Equipment		AQ-FURN-SEAT	Furnishings: seating	
AQ-EQPM-ACCS	Equipment: access		AQ-FURN-STOR	Furnishings: system storage components	
AQ-EQPM-FIXD	Equipment: fixed equipment		AQ-FURN-WKSF	Furnishings: system work surface components	
AQ-EQPM-MOVE	Equipment: moveable equipment		AQ-GLAZ	Glazing	
AQ-EQPM-NICN	Equipment: not in contract		AQ-GLAZ-FULL	Glazing: full-height	
AQ-EQPM-OVHD	Equipment: overhead		AQ-GLAZ-PRHT	Glazing: partial-height	
AQ-FLOOR	Floor		AQ-GLAZ-SILL	Glazing: window sills	
AQ-FLOOR-CASE	Floor: casework		AQ-HVAC	HVAC	
AQ-FLOOR-EVTR	Floor: elevator cars and equipment		AQ-HVAC-SDFF	HVAC: supply diffusers	
AQ-FLOOR-HRAL	Floor: handrails, guard rails		AQ-HVAC-RDFF	HVAC: return air diffusers	
AQ-FLOOR-LEVL	Floor: level changes, ramps, pits, depressions		AQ-LITE	Lighting fixtures	
AQ-FLOOR-OTLN	Floor: outline		AQ-ROOF	Roof	
AQ-FLOOR-OVHD	Floor: overhead (objects above)		AQ-ROOF-HRAL	Roof: handrails	
AQ-FLOOR-RAIS	Floor: raised		AQ-ROOF-LEVL	Roof: level changes	
AQ-FLOOR-RISR	Floor: stair risers		AQ-ROOF-OTLN	Roof: outline	
AQ-FLOOR-SIGN	Floor: signs		AQ-ROOF-RISR	Roof: stair risers	
AQ-FLOOR-SPCL	Floor: specialties (toilet room accessories, display cases)		AQ-ROOF-STRS	Roof: stair treads, ladders	
AQ-FLOOR-STRS	Floor: stair treads, escalators, ladders		AQ-WALL	Walls	
AQ-FLOOR-TPTN	Floor: toilet partitions		AQ-WALL-CAVI	Walls: cavity	

<https://openlab.citytech.cuny.edu/arch-1230/files/2014/08/AIA-Layer-Standards.pdf>

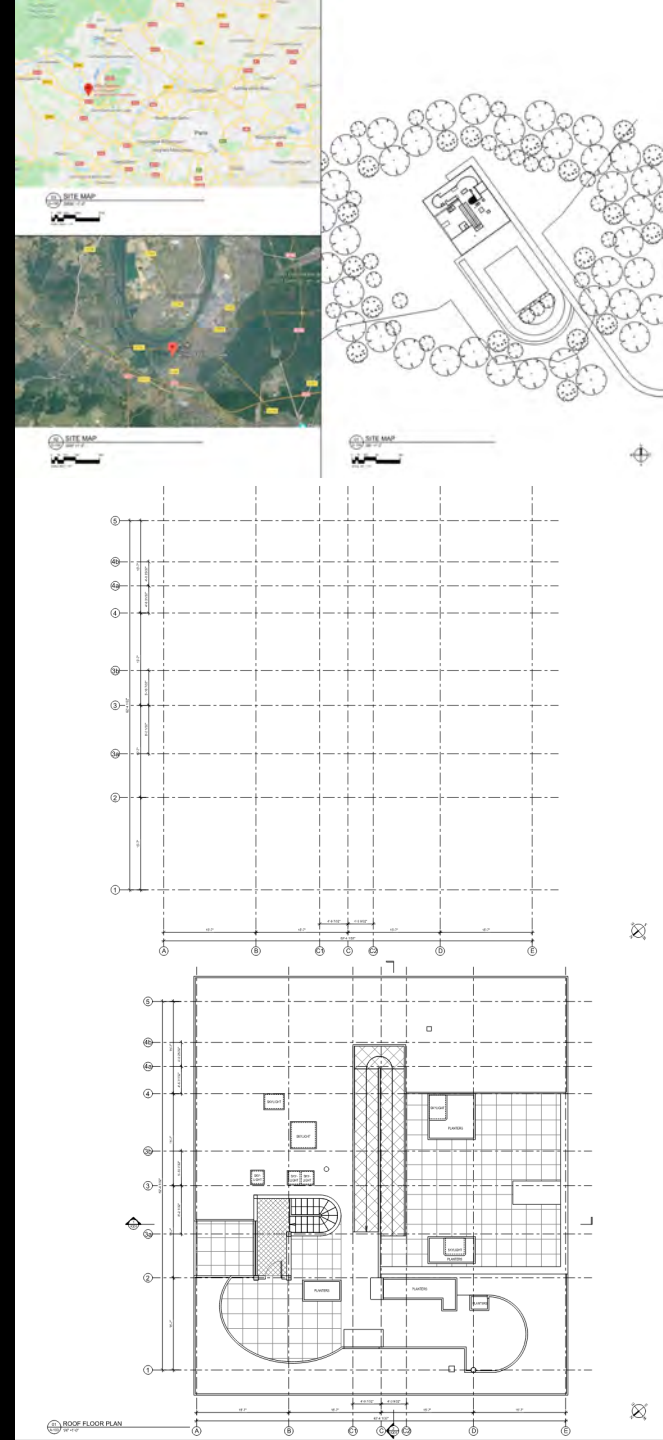
Assignment A-1

Grid plans & site plan

CASE STUDY #1 SITE+GRID+PLAN

DUE: the Day before next class (10pm)

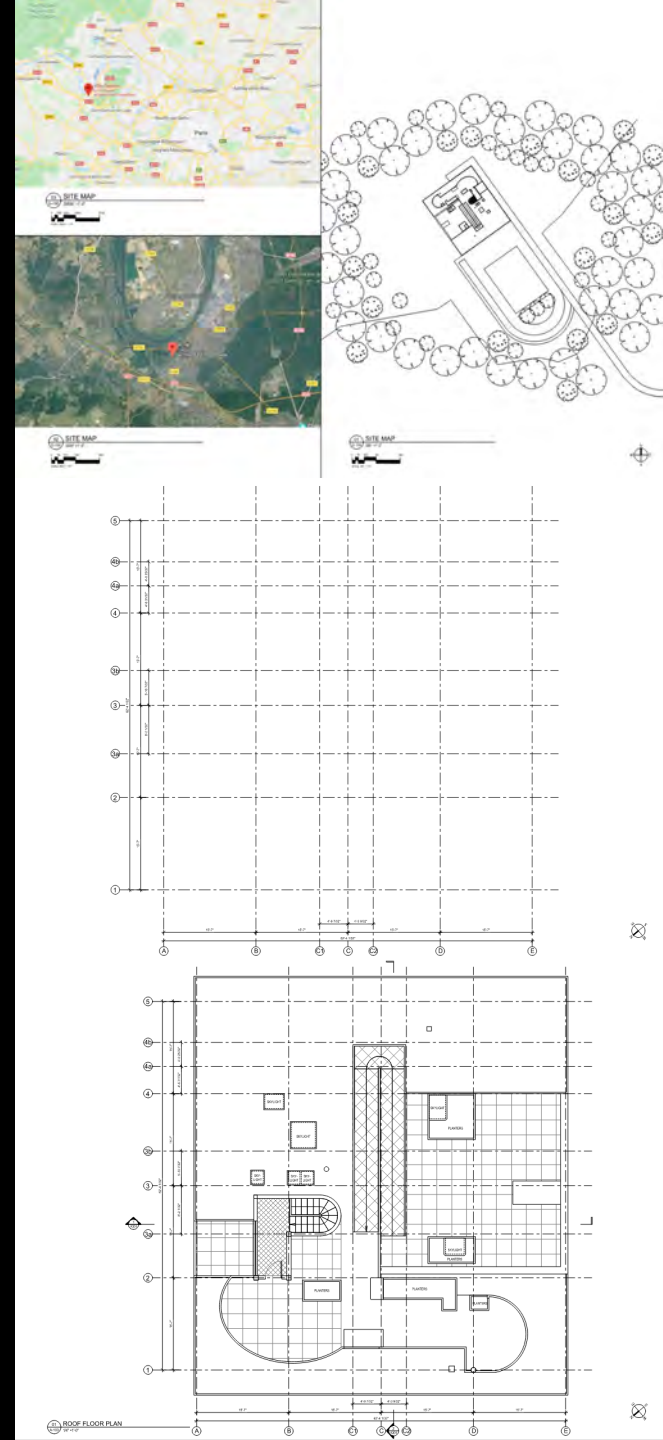
- See Assignment Blackboard Rubric for Grading
- 3 boards required:
 - i. Site Maps (3 altitudes: 30,000', 3000', 300')
 - ii. Structural Grid @ $1/4"=1'-0"$
 - iii. Roof Plan @ $1/4"=1'-0"$
- All views must have a north arrow
- One graphic scale must be included for each unique scale
- Your 10 layers list (As part of auto CAD file)



Assignment A-1

DUE: the Day before next class (9pm)

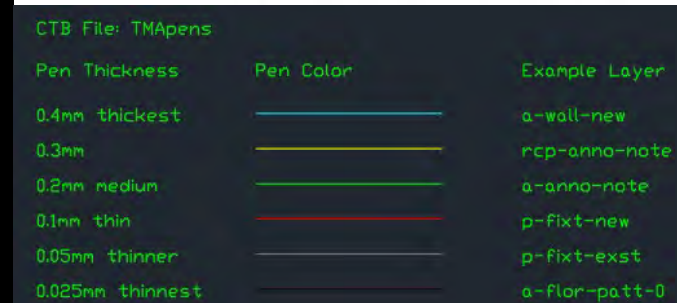
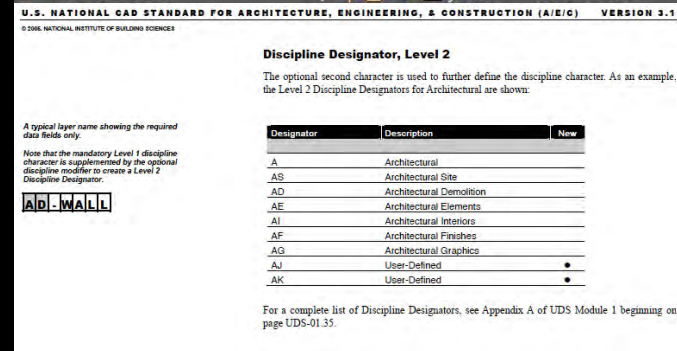
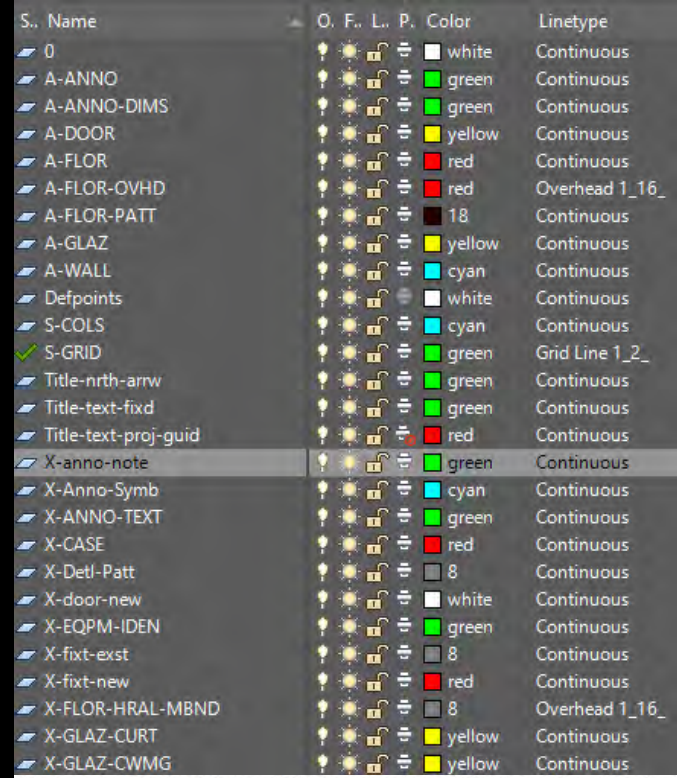
- Site maps to include the following:
 - i. Scale
 - ii. Altitude
 - iii. Latitude and Longitude Coordinates of Case Study Building
 - iv. Case Study Building Outlined/Highlighted
 - v. major urban features diagramed
 - vi. Case Study Building Outlined/Highlighted
 - vii. major urban features diagramed
 - viii. Roof plan



Assignment A-1

DUE: Day before Next class (9pm)

- Your 10 layers list
- As part of auto CAD file :
 - use “US national CAD standard” common naming standards
 - make sure you have at least one-layer line weight
 - make sure you have layers for long – short – and – lines
 - use CAPITAL letters only
 - start with S or A prefix (for architecture or structural disciplines)
 - keep the layers “0” and Defpoints as they required by the software
 - prefix code X not use layers
 - you may keep the prefix “Title” for title block information

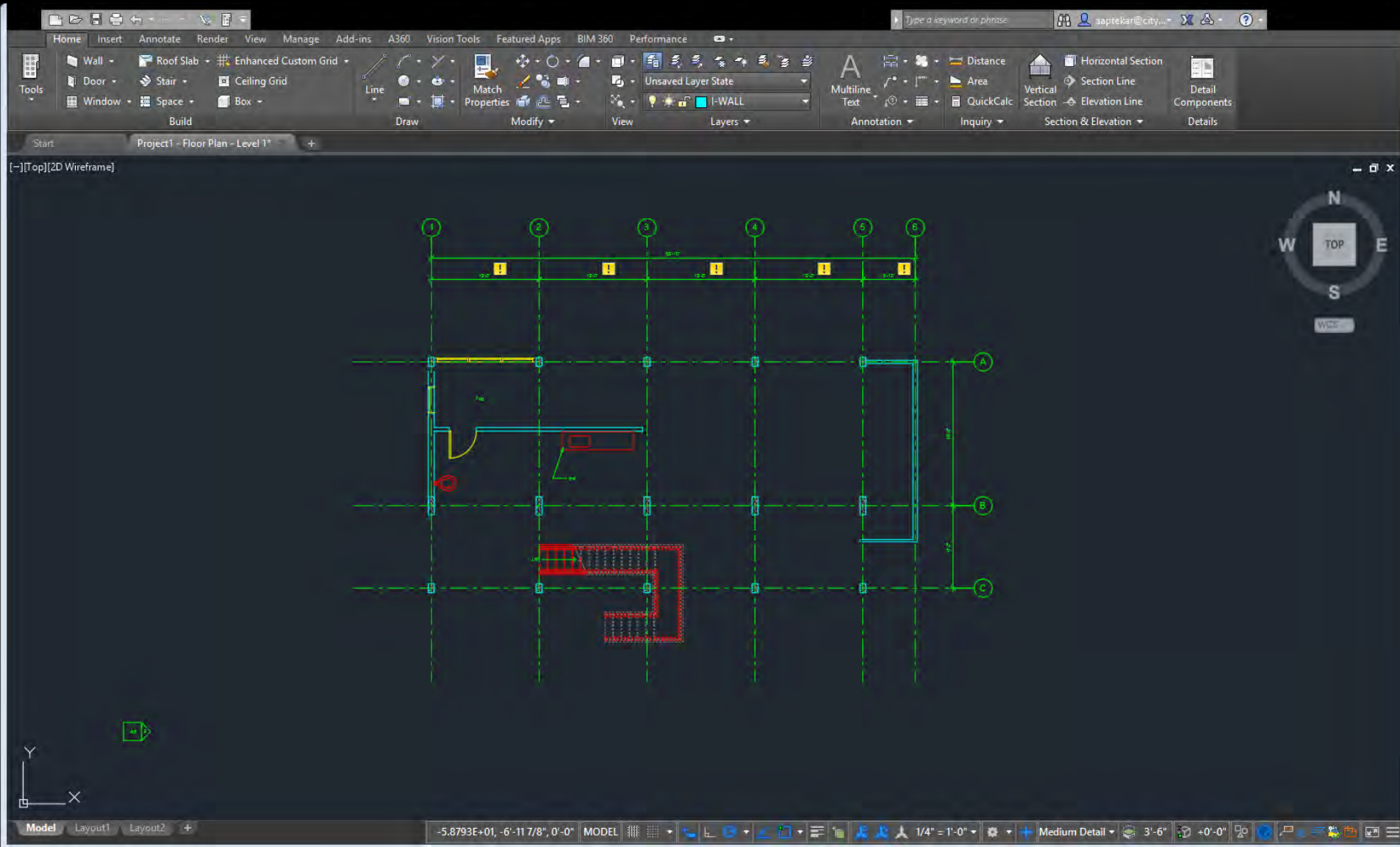


Assignment A-1

DUE: Day before Next class (10pm)

- Per board AutoCAD files, xrefs, and rasters included.
- all files submitted must follow this naming standard:
- Name files using the following naming convention:
 - course_professor initials_semester_project name_student name
 - (ex: ARCH2331_AA_S21_Grid_JoseSanchez-01.jpg)
 - files not conforming to department standards **may be graded.**

AutoCAD Tips....

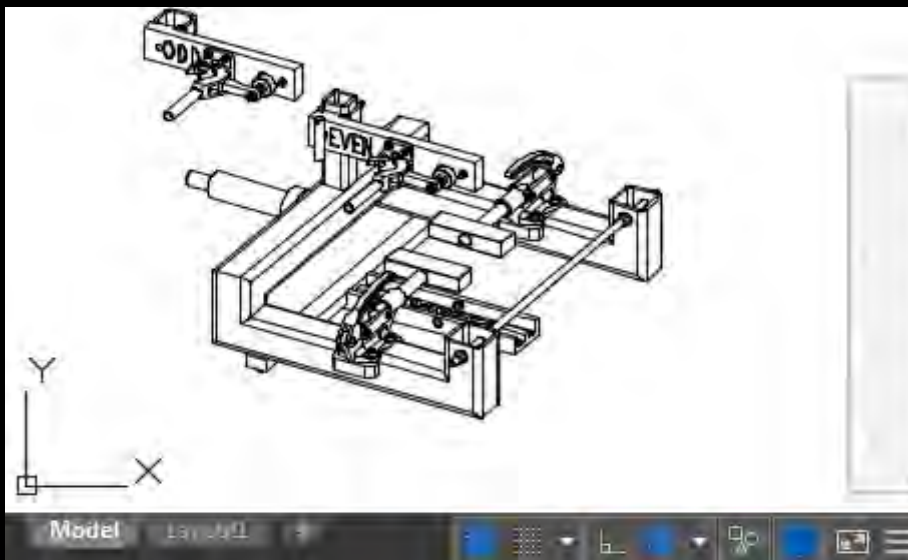


About Model Space and Paper Space

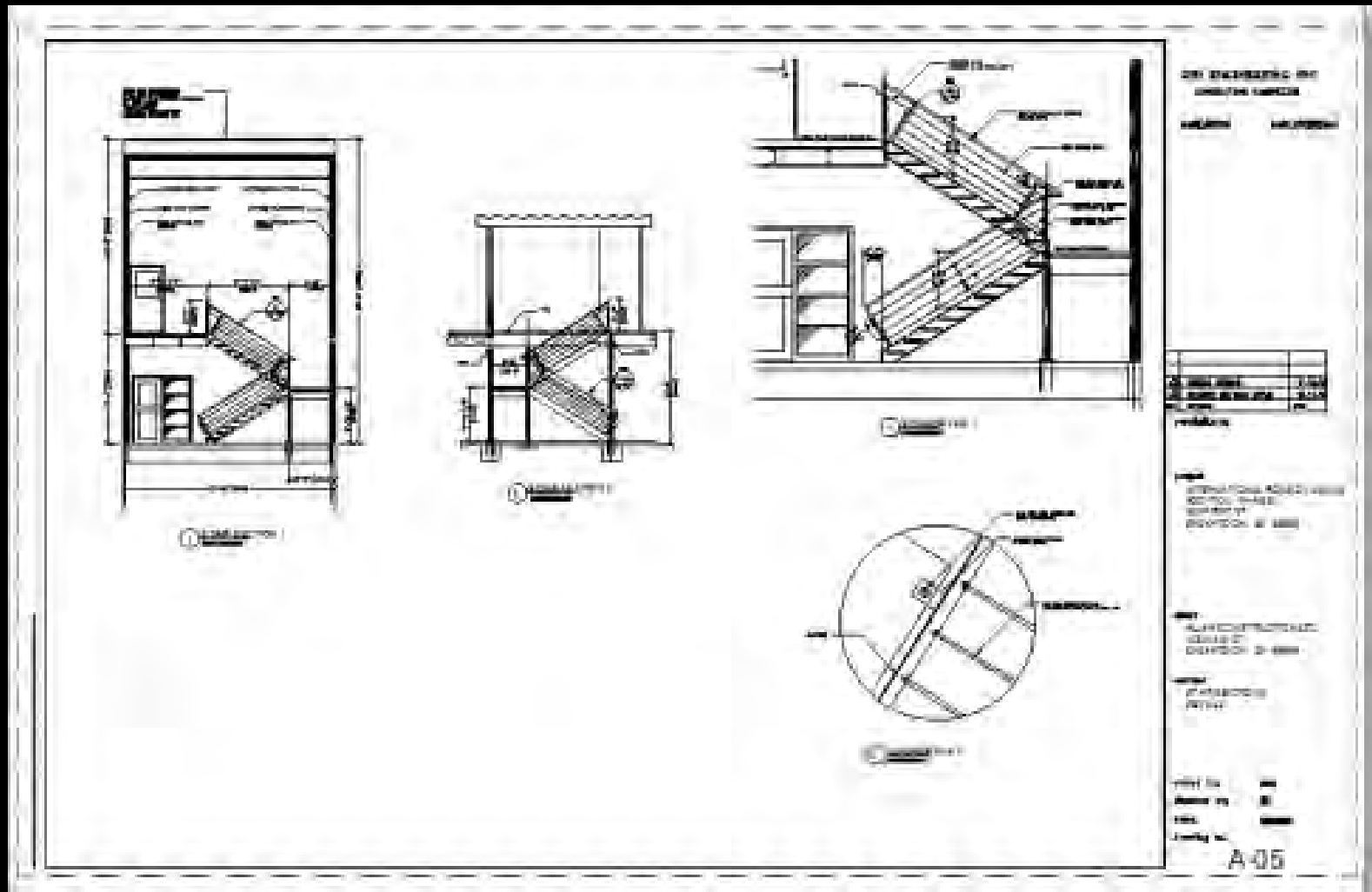
There are two distinct working environments, called "model space" and "paper space," in which you can work with objects in a drawing.

- By default, you start working in a limitless 3D drawing area called *model space*. You begin by deciding whether one unit represents one millimeter, one centimeter, one inch, one foot, or whatever unit is most convenient. You then draw at 1:1 scale.
- To prepare your drawing for printing, switch to paper space. Here you can set up different layouts with title blocks and notes; and on each layout, you create layout viewports that display different views of model space. In the layout viewports, you scale the model space views relative to paper space. One unit in paper space represents the actual distance on a sheet of paper, either in millimeters or inches, depending on how you configure your page setup.

Model space is accessible from the Model tab and paper space is accessible from the layout tabs.



About Model Space and Paper Space



CAD Layer Guidelines:



United States National CAD Standard® - V5
a product of the National Institute of Building Sciences buildingSMART alliance™

http://www.usbr.gov/foia/Vol%20III/NCS-CAD_Layer_Guidelines.pdf

AIA CAD Layer Guidelines:

U.S. NATIONAL CAD STANDARD FOR ARCHITECTURE, ENGINEERING, & CONSTRUCTION (A/E/C) VERSION 3.1			© 2005, NATIONAL INSTITUTE OF BUILDING SCIENCES		
Layer Name	Description	New	Layer Name	Description	New
Architectural (continued)			Architectural (continued)		
AQ-CLNG-TEES	Ceiling: main tees		AQ-FLOOR-WDWK	Floor: architectural woodwork	
AQ-CLNG-SUSP	Ceiling: suspended elements		AQ-FURN	Furnishings	
AQ-COLS	Columns		AQ-FURN-FILE	Furnishings: file cabinets	
AQ-CONV	Conveying systems		AQ-FURN-FIXD	Furnishings: fixed in place	
AQ-DOOR	Doors		AQ-FURN-FREE	Furnishings: freestanding	
AQ-DOOR-FULL	Doors: full-height (swing and leaf)		AQ-FURN-PLNT	Furnishings: plants	
AQ-DOOR-PRHT	Doors: partial height (swing and leaf)		AQ-FURN-PNLS	Furnishings: system panels	
AQ-EQPM	Equipment		AQ-FURN-SEAT	Furnishings: seating	
AQ-EQPM-ACCS	Equipment: access		AQ-FURN-STOR	Furnishings: system storage components	
AQ-EQPM-FIXD	Equipment: fixed equipment		AQ-FURN-WKSF	Furnishings: system work surface components	
AQ-EQPM-MOVE	Equipment: moveable equipment		AQ-GLAZ	Glazing	
AQ-EQPM-NICN	Equipment: not in contract		AQ-GLAZ-FULL	Glazing: full-height	
AQ-EQPM-OVHD	Equipment: overhead		AQ-GLAZ-PRHT	Glazing: partial-height	
AQ-FLOOR	Floor		AQ-GLAZ-SILL	Glazing: window sills	
AQ-FLOOR-CASE	Floor: casework		AQ-HVAC	HVAC	
AQ-FLOOR-EVTR	Floor: elevator cars and equipment		AQ-HVAC-SDFF	HVAC: supply diffusers	
AQ-FLOOR-HRAL	Floor: handrails, guard rails		AQ-HVAC-RDFF	HVAC: return air diffusers	
AQ-FLOOR-LEVL	Floor: level changes, ramps, pits, depressions		AQ-LITE	Lighting fixtures	
AQ-FLOOR-OTLN	Floor: outline		AQ-ROOF	Roof	
AQ-FLOOR-OVHD	Floor: overhead (objects above)		AQ-ROOF-HRAL	Roof: handrails	
AQ-FLOOR-RAIS	Floor: raised		AQ-ROOF-LEVL	Roof: level changes	
AQ-FLOOR-RISR	Floor: stair risers		AQ-ROOF-OTLN	Roof: outline	
AQ-FLOOR-SIGN	Floor: signs		AQ-ROOF-RISR	Roof: stair risers	
AQ-FLOOR-SPCL	Floor: specialties (toilet room accessories, display cases)		AQ-ROOF-STRS	Roof: stair treads, ladders	
AQ-FLOOR-STRS	Floor: stair treads, escalators, ladders		AQ-WALL	Walls	
AQ-FLOOR-TPTN	Floor: toilet partitions		AQ-WALL-CAVI	Walls: cavity	

ARCHITECTURAL LAYER LIST

CLG-44

<https://openlab.citytech.cuny.edu/arch-1230/files/2014/08/AIA-Layer-Standards.pdf>



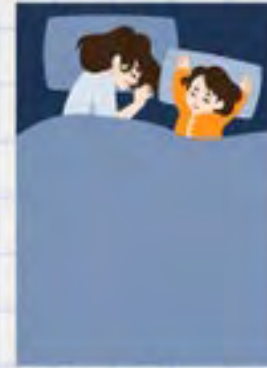
SMALL SINGLE
30" x 75"



TWIN
38" x 75"



TWIN XL
38" x 80"



FULL
54" x 75"



FULL XL
54" x 80"



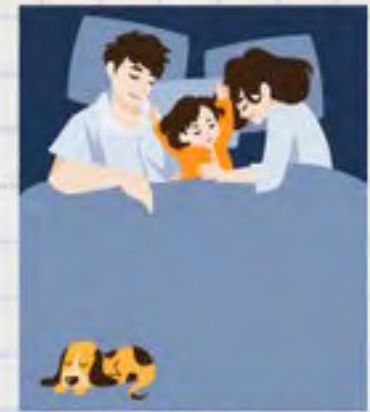
QUEEN
60" x 80"



OLYMPIC QUEEN
66" x 80"



KING
76" x 80"

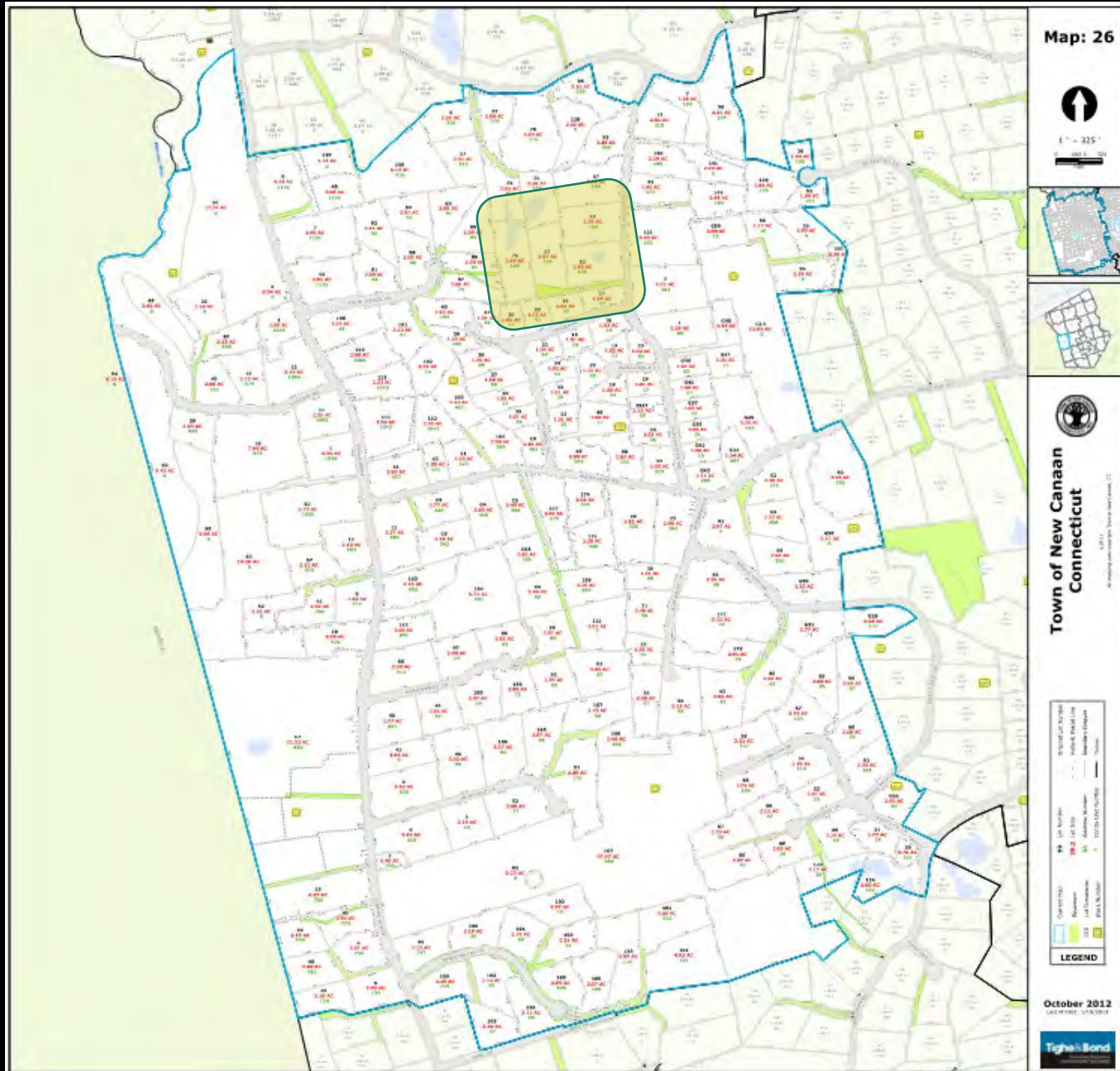


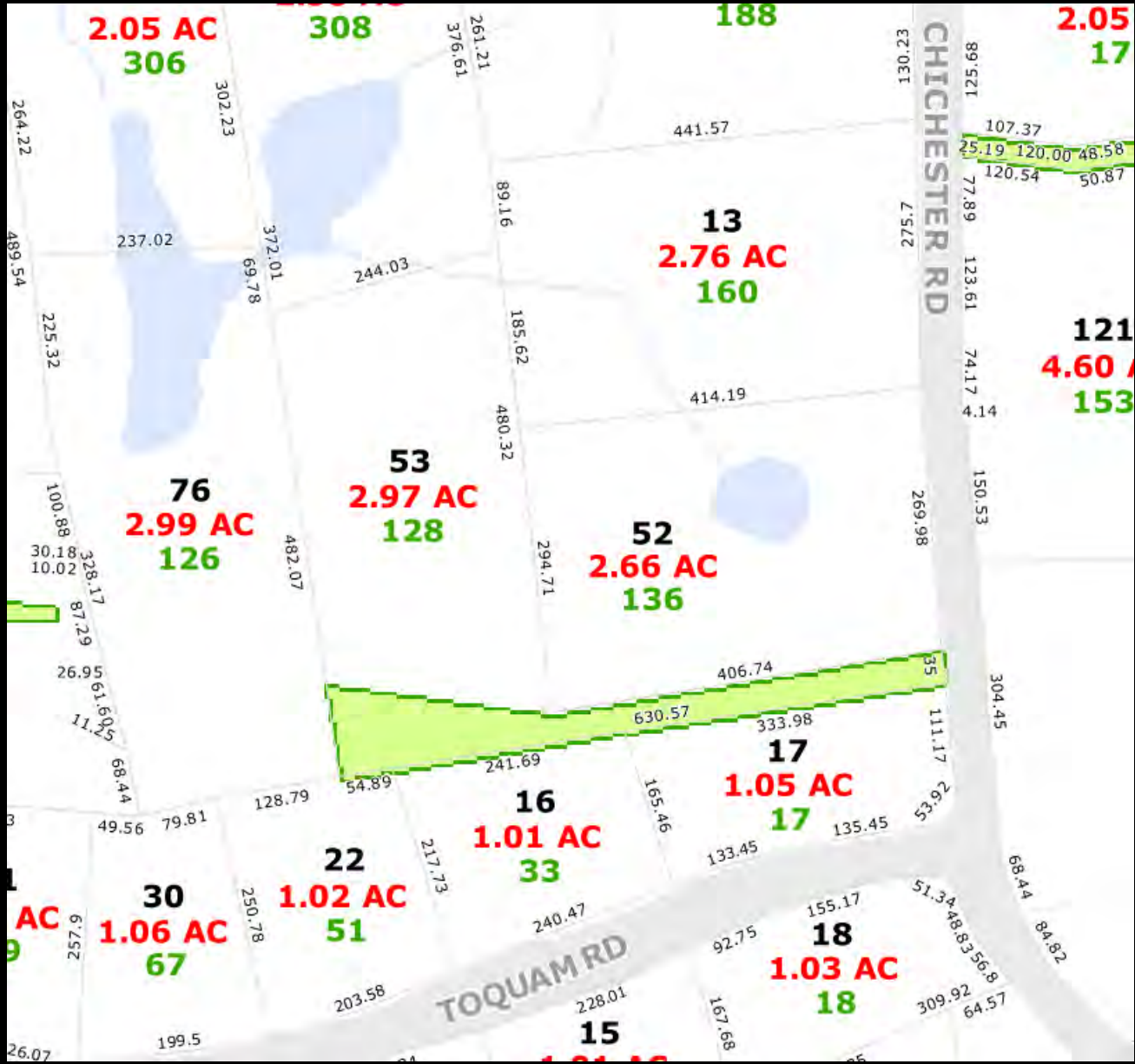
CALIFORNIA KING
72" x 84"

BED SIZE DIMENSIONS GUIDE



text map
26





Current Map	Original Lot Number	Lot Number	Lot Size	Address Number	Condo Unit Number
		59	26.2	38	4

LEGEND

reference scale command

Scaling [SC key command] can be easily accomplished by having two objects to snap to and using the reference scale command.

reference scaling to an object in auto CAD

1. type "sc" for scale
2. Select the object to scale.
3. Select the base point.
4. Enter r (Reference).
5. Select the first and second reference points, or enter a value for the reference length.

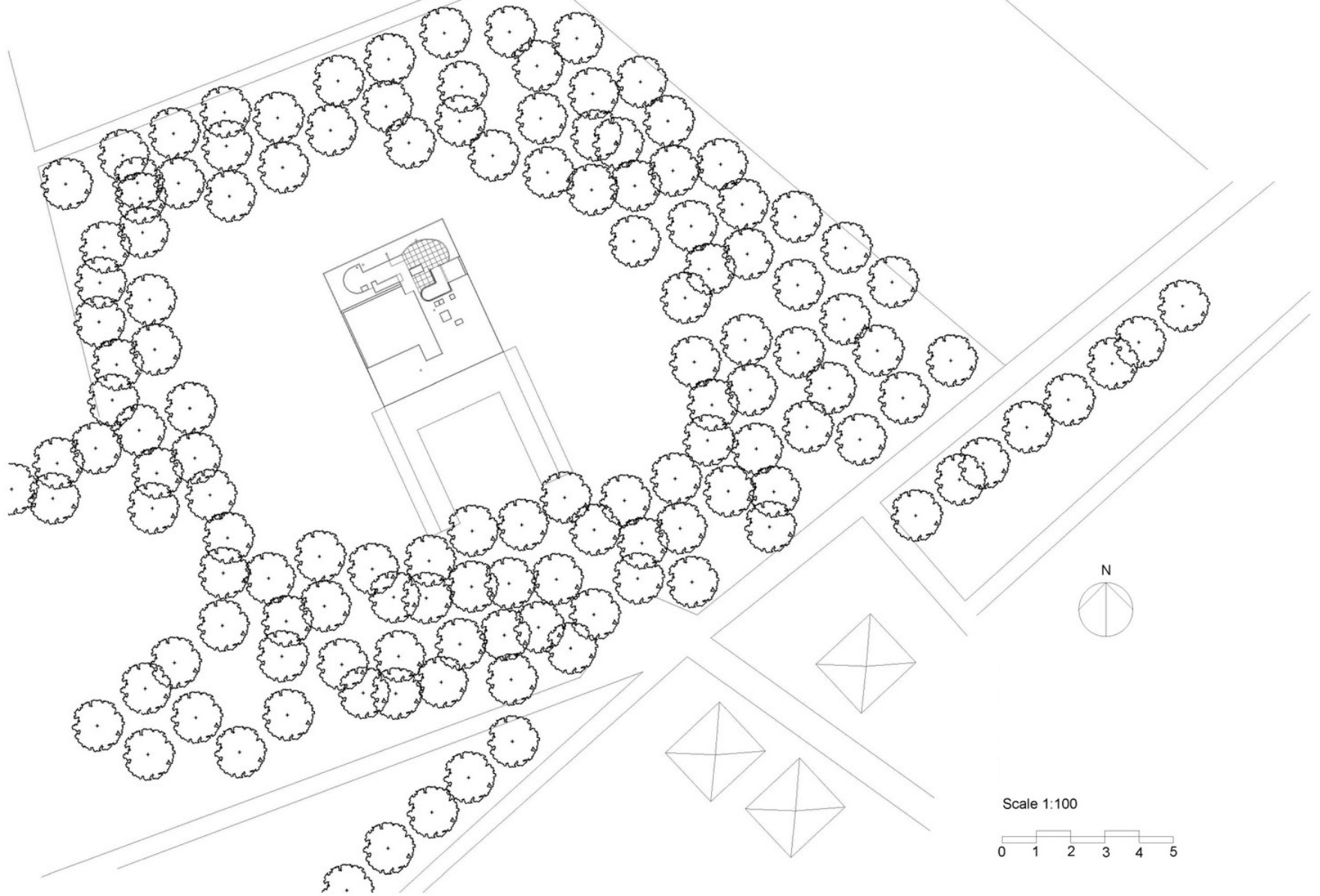
This link contains a decent reference scaling video:

<https://autocadtips1.com/2011/04/17/scale-objects-with-a-reference/>



Photo: A Aptekar 2019, Miami Florida

82 Rue de Villiers, 78300 Poissy, France



Scale 1:100

0 1 2 3 4 5