



# AB1851 Optimizing the Design Development Stage using Revit Architecture

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Doug Bowers Consulting, LLC



# About Doug

- **Currently works as an independent consultant – Doug Bowers Consulting, LLC**
  - **Provide training and implementation for AutoCAD, AutoCAD Architecture, and Revit products on a nationwide basis**
- **Over 30 years in the AEC industry, including over 20 years managing or consulting in design software, including CAD and BIM**
- **Worked for companies in both production and management roles**
  - **Started using CAD in 1978 and started using AutoCAD in 1988**
  - **Production roles of Drafter, Technician, Project Manager, Project Architect.**
  - **Director of CAD Technologies – Managed, trained, and supported users for company with 16 offices around the country, including software customizations**

# Class Summary

The Design Development stage of a building design is an important time for refining the building design for meeting requirements, but also when good communication with the client is crucial in getting their approval. This class will demonstrate ways of using Revit to make sure that you are fulfilling the design criteria through verifying space usage per the program, addressing room occupancy, and visually coordinating fire rated walls and doors. We will also show how to communicate the design with the client through Room Data Sheets, 3D plans per floor, floor plan shadowing, color schemes, and other methods.

# Learning Objectives

At the end of this class, you will be able to:

- Configure a view to show the room occupancy for each room
- Create a custom schedule to verify space usage relationship to the program
- Create 8-1/2" x 11" Room Data Sheets
- Create visually impacting floor plans

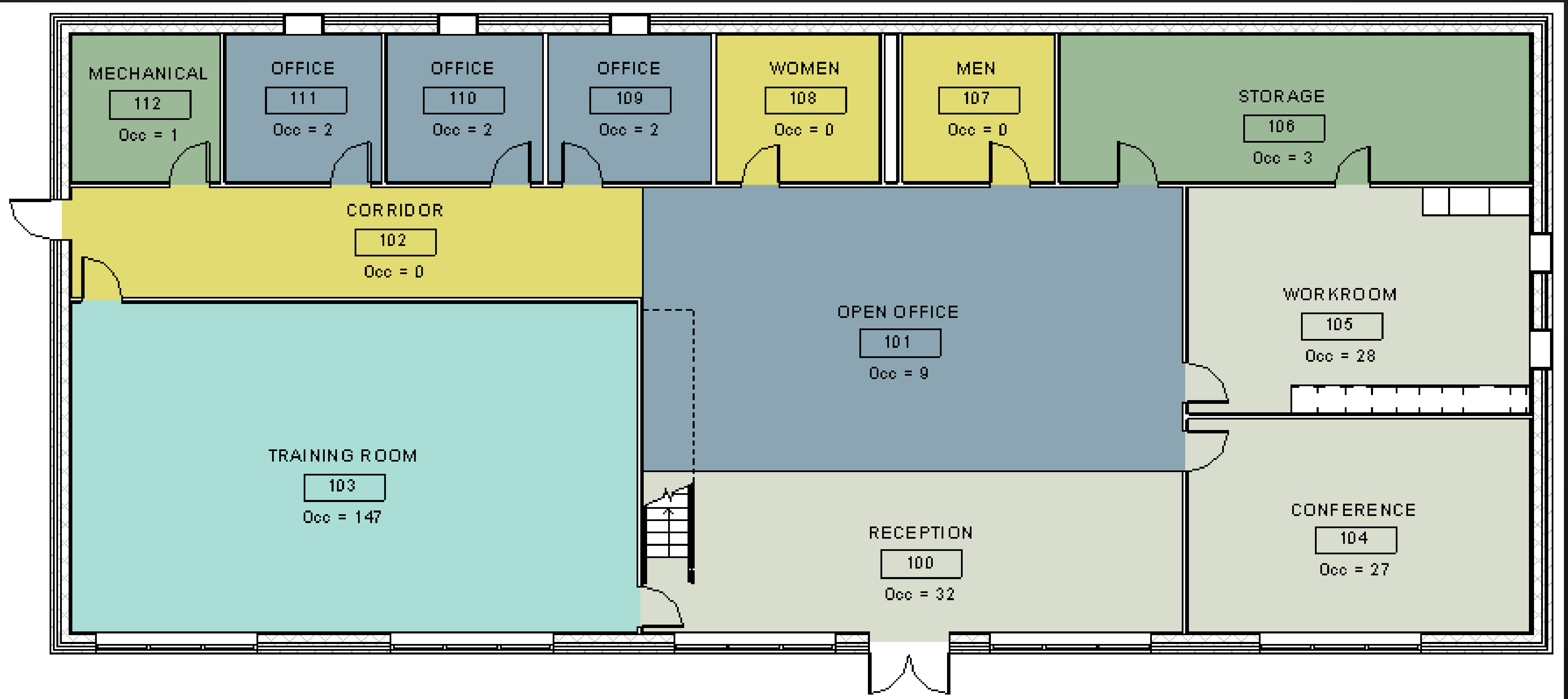
# Program Vs Actual Room Area

Room Area Schedule					
Name	Number	Area	Program Area	Area Difference	Area Percentage
RECEPTION	100	479 SF	500 SF	-21 SF	95.8%
OPEN OFFICE	101	844 SF	850 SF	-6 SF	99.3%
CORRIDOR	102	343 SF	350 SF	-7 SF	98.0%
TRAINING ROOM	103	1028 SF	1000 SF	28 SF	102.8%
CONFERENCE	104	402 SF	400 SF	2 SF	100.5%
WORKROOM	105	428 SF	400 SF	28 SF	106.9%
STORAGE	106	384 SF	400 SF	-16 SF	96.1%
MEN	107	123 SF	120 SF	3 SF	102.7%
WOMEN	108	134 SF	150 SF	-16 SF	89.1%
OFFICE	109	133 SF	120 SF	13 SF	110.7%
OFFICE	110	127 SF	120 SF	7 SF	106.1%
OFFICE	111	127 SF	120 SF	7 SF	106.1%
MECHANICAL	112	121 SF	120 SF	1 SF	100.5%
		4673 SF	4650 SF	23 SF	

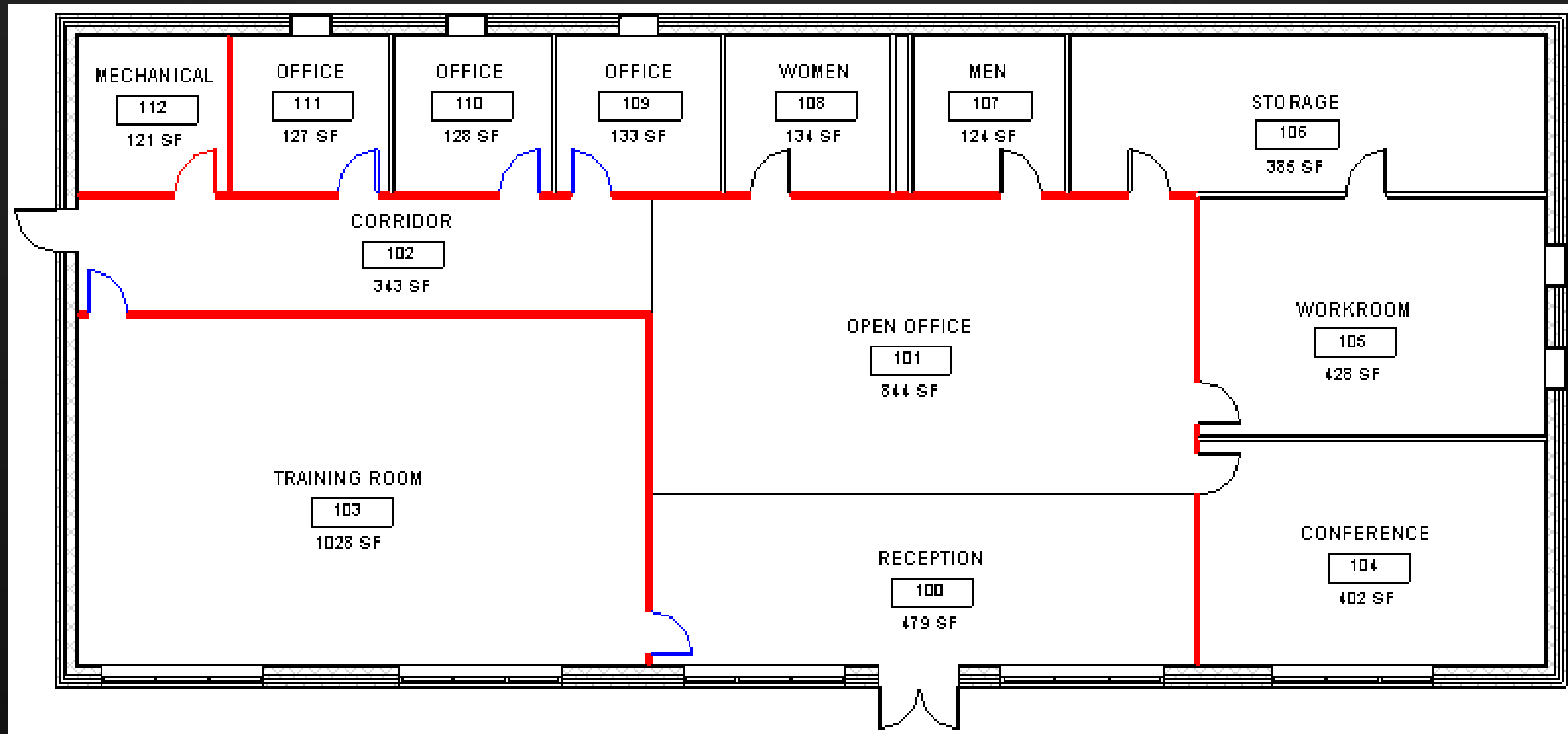
# Room Occupancy & Usage

Number	Name	Area	Occupancy Schedule						
			Non Calculate	Net Room Area	Area Per Occ	Occupancy Classification	Occup	Occupa	Occupancy Load Equal Test
100	RECEPTION	479 SF	0 SF	479 SF	15 SF	Assembly without fixed	32	32	Yes
101	OPEN OFFICE	844 SF	0 SF	844 SF	100 SF	Business areas	9	9	Yes
102	CORRIDOR	343 SF	0 SF	343 SF	0 SF	Unoccupied - Corridors,		0	
103	TRAINING ROOM	1028 SF	0 SF	1028 SF	7 SF	Assembly without fixed	147	147	Yes
104	CONFERENCE	402 SF	0 SF	402 SF	15 SF	Assembly without fixed	27	27	Yes
105	WORKROOM	428 SF	20 SF	408 SF	15 SF	Assembly without fixed	28	28	Yes
106	STORAGE	384 SF	0 SF	384 SF	300 SF	Accessory storage area	2	3	No
107	MEN	123 SF	0 SF	123 SF	0 SF	Unoccupied - Corridors,		0	
108	WOMEN	134 SF	0 SF	134 SF	0 SF	Unoccupied - Corridors,		0	
109	OFFICE	133 SF	0 SF	133 SF	100 SF	Business areas	2	2	Yes
110	OFFICE	127 SF	0 SF	127 SF	100 SF	Business areas	2	2	Yes
111	OFFICE	127 SF	0 SF	127 SF	100 SF	Business areas	2	2	Yes
112	MECHANICAL	121 SF	0 SF	121 SF	300 SF	Accessory storage area	1	1	Yes
Grand total							252	253	

# Room Occupancy & Usage



# Filters for Checking Design





# Room Data Sheets

## Optimizing Design Development

Project Number: AB1851

Room Name: WORKROOM  
Program ID: WKRM  
Room Number: 105  
Department: Support

### Finishes:

Ceiling Height: 9'-0"  
Ceiling Finish: ACT  
Floor Finish: VCT  
Wall Finish: PAINT  
Base Finish: VB

Program Area: 400 SF  
Actual Area: 428 SF

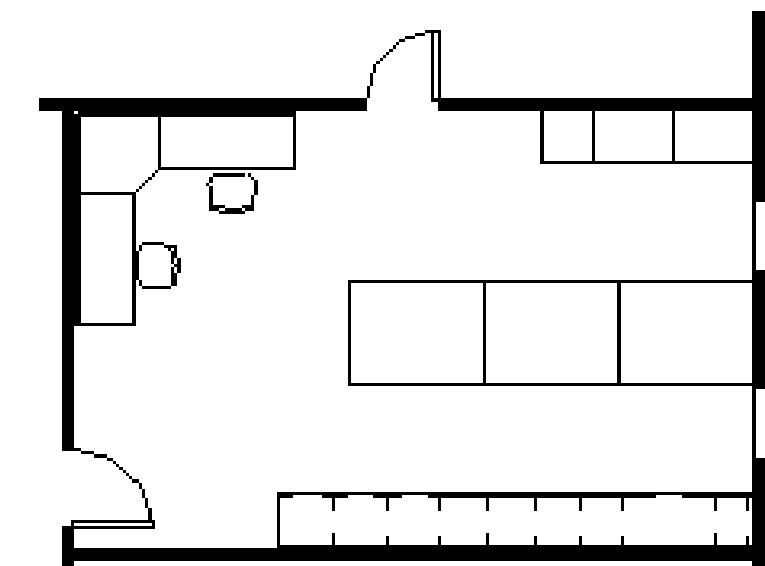
### Architectural:

Glazing: EXTERIOR ONLY  
Door Hardware: LOCKSET  
Millwork: 8" TALL CABINETS, 18" COUNTER  
W/CABINETS ABOVE & BELOW,

Comments: THIS IS A SAMPLE COMMENT

### Mechanical:

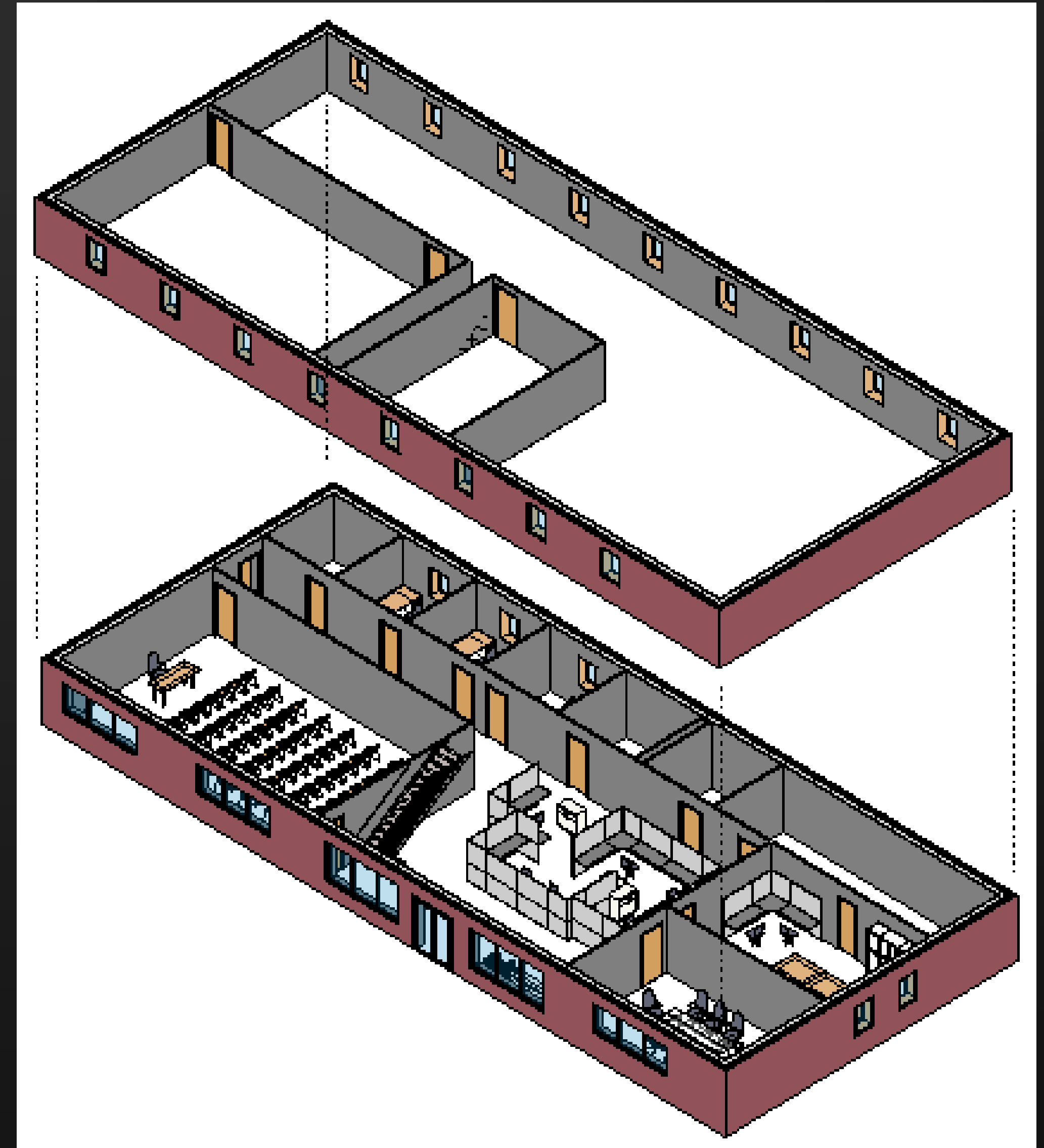
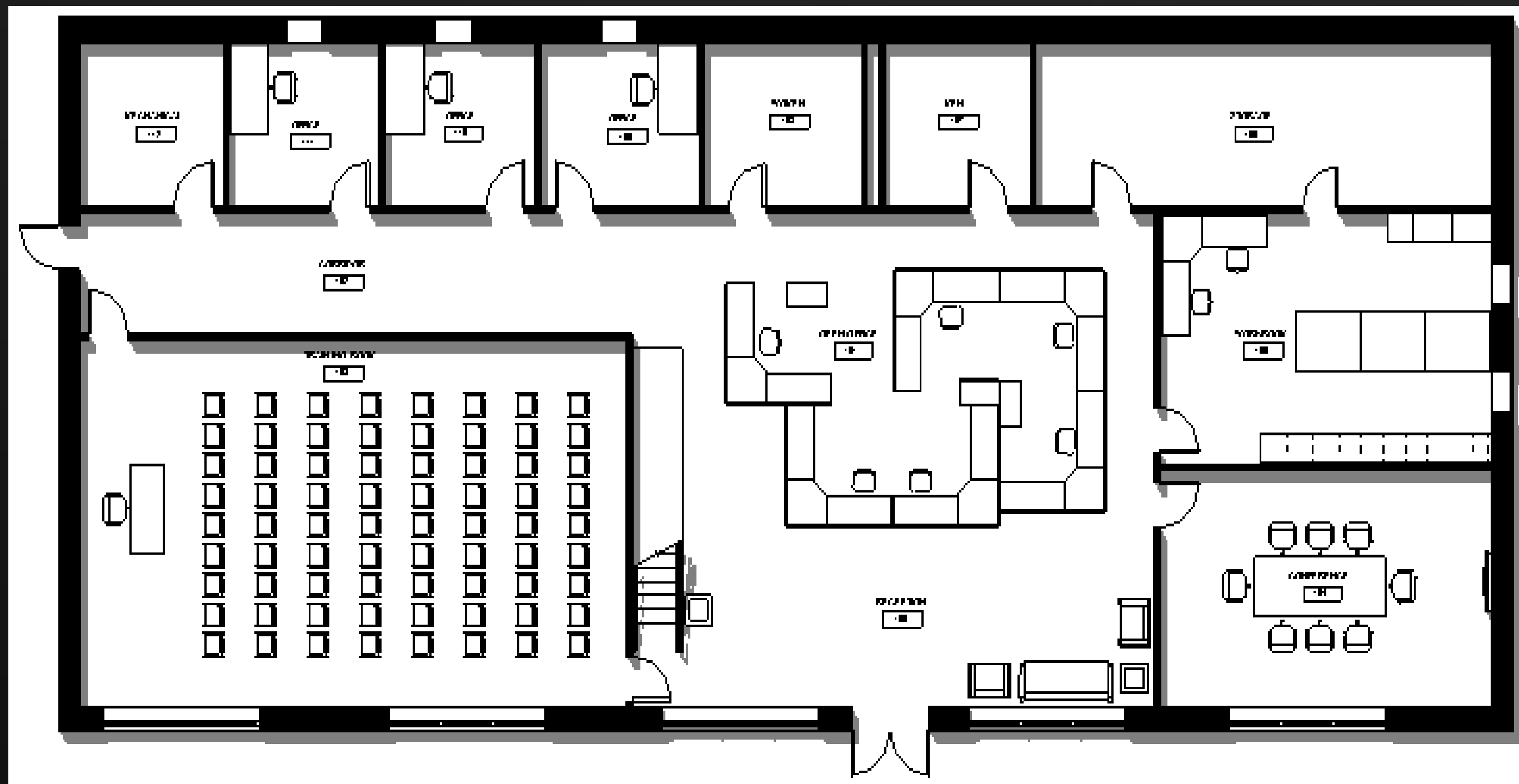
Power: 120V ABOVE COUNTER, 15"  
ELSEWHERE  
Lighting: FLUORESCENT  
Data/Telephone: 1 PHONE, 3 DATA  
Plumbing: NONE  
HVAC: STANDARD



Reviewer's Approval Signature: \_\_\_\_\_ Date: \_\_\_\_\_

 Autodesk University 2012

# Visual Floor Plans



# Let's get into Revit...

*Please hold questions until the end.*



**Thank you for choosing this class to attend!**



**Be sure and fill out your class evaluation.**