CLASS OBJECTIVE

The Preparing Construction Documents with Revit Architecture course focuses on using Revit's modeling tools, annotation content and documentation systems to produce Construction Documentation deliverables.

After completing the class, though there is still much to learn through professional experience, attendees will be able join a project team as a productive and proactive member to assist with the completion of the project.

CLASS PREPARATION

COMPUTER EQUIPMENT

Students need access to a PC with Revit installed and an internet connection. We also recommend the use of two monitors when possible, allowing you to both watch and practice at the same time.

SOFTWARE RECOMMENDATIONS

It is recommended that participants use **Revit 2024** or newer due to procedural changes. Revit LT or a trial version is acceptable for use in the class, though some tools and features may be missing.
https://www.autodesk.com/products/revit/free-trial.

We use Zoom software to share our screens, video, and audio.   We will provide a meeting ID for the class. We recommend downloading and installing the zoom app.
https://zoom.us/download#client_4meeting

PRE-TRAINING PREPARATION

The class assumes attendee will have familiarity with architectural construction documents. No prior Revit or AutoCAD experience is necessary, however, to get the most out of the class we recommend reviewing Autodesk's Getting Started tutorials prior to the beginning of the course
https://knowledge.autodesk.com/support/revit-products/getting-started?sort=score

CLASS FORMAT

The class consists of 9 half-day workshops with a live instructor. Each day is typically 3-1/2 to 4 hours starting at 1:15 pm EST.

Each half day has 2-4 workshops, each lasting between 45 and 90 minutes. The instructor will introduce each topic and provide a live demonstration. After the demonstration there will be an exercise with time available for questions and answers. Before moving on to the next topic we'll review key points and takeaways. Short breaks is scheduled for the middle of each day

QUESTIONS DURING CLASS

Make the most of your class! **Please ask questions at any time!** The greatest benefit of live training is that you have the opportunity to ask questions of an expert who has done it before, and who can give you direct answers. To facilitate answering your questions, your instructor will likely request you share your screen as visualizing hurdles that may appear provides the greatest benefit to you and your classmates.

CLASS AGENDA

WEEK 1 – MODELING THE PROJECT

DAY 1

- □ **Workshop 1 – Navigating Revit**
  - □ Revit File Versions & Types
  - □ Opening Projects
  - □ Stand Alone Vs. Workshared
  - □ Interface Review - Application Menu, Quick Access Toolbar, Ribbon, Options Bar, Project Browser, Properties, Status bar
  - □ Switching Views – Project Browser and View Mark Hyperlinks
  - □ Navigation: Zooming-Panning-Orbiting
  - □ Keyboard Shortcuts
- □ **Workshop 2 – Key Concepts**
  - □ Selecting Objects
  - □ Object Properties – Instance and Type
  - □ Revit Organization – Categories / Families / Types
  - □ Modeling vs Drafting
  - □ Line Weights, Line Patterns, Line Styles
  - □ Materials
- □ **Workshop 3 – Views and View properties**
  - □ View Properties
  - □ Graphic Hierarchy: Object Styles to Visibility Graphics
  - □ View Range
  - □ New and Duplicate Views
  - □ The Box Command, Temporary Hide/Isolate, Viz Graphics

DAY 2

- □ **Workshop 1 – New Projects & Origins**
  - □ Project Templates
  - □ Project Information
  - □ Internal Origin, Survey Point & Project Base Point
- □ **Workshop 2 – Datums & Constraints**
  - □ Drawing Levels & Grids
  - □ 2D vs 3D Extents
  - □ Dimensions & Modeling
    - □ Moving Objects
    - □ Establishing Relationships
    - □ Equality Constraints

- □ **Workshop 3 – System Components: Walls**
  - □ Drawing Tools
  - □ Wall Location Line
  - □ Modifying & Creating Wall Types
    - □ Function & Materials
  - □ Modify Commands
- □ **Workshop 4 – Structural Components**
  - □ Columns
  - □ Foundations
  - □ Footings

DAY 3

- □ **Workshop 1 – System Components: Floors**
  - □ Introduction to Sketch Mode
    - □ Automatic Selection Tools
  - □ Wall Joining & Attachment Commands
  - □ Opening Families
    - □ Vertical, By Face, Shaft
- □ **Workshop 2 – System Components: Roofs**
  - □ Plan & Profile Sketch Options
    - □ Selecting Work Planes
  - □ Soffits, Gutters & Fascia
    - □ Profile Families
  - □ Construction Parameters
    - □ Fascia Shape & Framing Location
  - □ Opening Families
- □ **Workshop 3 – System Components: Ceilings**
  - □ RCP & Automatic Creation Options
    - □ Pattern Origin & Orientation
  - □ Drafting vs. Model Patterns
- □ **Workshop 4 – Loadable Components**
  - □ Loading New Families and Types
  - □ Doors, Windows, Openings
    - □ Instance & Type Parameters
    - □ Duplicating Family Types
  - □ Placing Other Building Components
    - □ Furniture, Casework, Plumbing
    - □ Model Groups
  - □ Placing Ceiling Components

WEEK 2 – DOCUMENTING THE PROJECT

DAY 4

- **Workshop 1 – Intro to Family Building**
  - Categories & Hosting
  - Reference Planes, Dimensions & Parameters
  - Material & Visibility Parameters
- **Workshop 2 – Stairs & Ramps**
  - Stair Types & Nested Components
  - Drawing Stairs
  - Ramps & Sloped Floors
  - Subcategories & Visibility Controls
- **Workshop 3 – Railings**
  - Railing Types & Nested Components
  - Adding Railings to Stairs & Ramps
  - Drawing Railings
  - Hosting
- **Workshop 4 – Curtain Walls**
  - Curtain Wall Types & Nested Components
  - Pattern Rules & Overrides
  - Doors & Curtain Walls

DAY 5

- **Workshop 1 – Advanced Walls**
  - Profile Manipulation
  - Split Face & Paint
  - Structural Layer Manipulation
- **Workshop 2 – Revit Team Environment**
  - Activating Worksharing
  - Worksharing Best Practices & Terminology
  - Worksets & Model Management
  - Worksets & Visibility
- **Workshop 3 – External Coordination (2D)**
  - Linking CAD
  - Managing Layers & View Graphics
  - Site Content & Documentation
    - Building Toposolids
    - Mass Voids
    - Site Plan & Annotations
- **Workshop 4 – Intro to Sheets (Site Plan)**
  - Creating & Sheet
  - Applying & Modifying a Titleblock
  - Placing Views & Managing Viewports
  - Sheet & View Revisions

DAY 6

- **Workshop 1 – Floor Plans**
  - Annotation – Dimensions, Notes & Tags
  - Rooms, Separation Lines & Tags
  - Plan Graphics & Consistency
    - View Templates
    - Temporary Overrides
    - Underlays & Plan Regions
  - Legends – General Notes
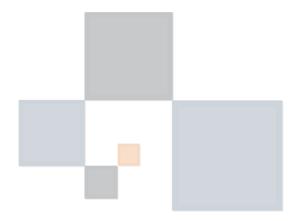- **Workshop 2 – Demo Plans**
  - Phasing Settings & View Graphics
  - Assigning Phases to Views & Content
  - Renovation & Selective Demolition
  - Legends – Graphics
- **Workshop 3 – Ceiling Plans**
  - Ceiling Tags & Spot Elevations
  - View Range
  - Legends – Symbolic
- **Workshop 4 – Sheet Consistency**
  - Scope Boxes & Guide Grids
  - Sheet & View Management Tools

WEEK 3 – DELIVERING THE PROJECT

DAY 7

- **Workshop 1 – Building Elevations & Sections**
  - Supplementary Detail – Modeling vs. Model Lines vs. Drafting
  - Adding Annotation
- **Workshop 2 – Enlarged Drawings**
  - Interior Elevations
    - Linework Tool
    - Masking Regions
  - Wall Sections
    - Reference Callouts
    - Introduction to Detail Components
  - Enlarged Plans
- **Workshop 3 – Construction Details**
  - Drafting Content
    - Lines, Regions, Components & Symbols
  - Model vs. Drafted Details
  - Detail Groups & Callout References
  - Deliverables
    - Ceiling Detail
    - Typical Window Details

DAY 8

- **Workshop 1 – Schedule Sheets**
  - Room Schedule
  - Door & Window Schedules
    - Legends - Door Panel and Frame Elevations
  - Schedule Best Practices
    - Itemizing
    - Links
    - Split & Filter by Sheet
- **Workshop 2 – Square Footage Plans**
  - Rooms vs. Areas
  - Area Plan Types
  - Applying & Managing Color Schemes
- **Workshop 3 – Furniture & Life Safety**
  - Design Options
    - Enabling Options
    - Creating Option Views
  - Annotation Graphics
  - View Filters
- **Workshop 4 – Camera Views**
  - Graphic Display Options

DAY 9

- **Workshop 1 – Model Maintenance**
  - Purge Unused
  - Audit & Compact
  - Warning Review
- **Workshop 2 – External Coordination (3D)**
  - Linking Revit Files
  - Workset Management Review
  - Linked File Graphics
  - Coordination Views
- **Workshop 3 – Compiling Drawing Sets**
  - Cover Sheets
  - Sheet Indexes & Working Schedules
  - Browser Organization
- **Workshop 4 – Plotting**
  - Export to PDF
  - Print Set Creation & Management
  - PDF Best Practices
    - Scaling
    - Sheet Order
    - Plot Settings