



2022 Winter Workshop | December 14 & 15

Autodesk Build

Hands-on workshop

Steve Strickland

Technical Manager, Construction Education | Autodesk Education



About me



Steve Strickland

Technical Manager, Construction Education
Autodesk Education

- Located near Detroit, Michigan
- Joined Autodesk Education in March 2020
- AEC industry experience includes BIM / VDC, project management, innovation, & owner's representation

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Zoom Housekeeping

The screenshot shows a Zoom meeting window with several callouts:

- 1**: A dialog box titled "Choose ONE of the audio conference options" with buttons for "Phone Call", "Computer Audio", and "Call Me". A "Join with Computer Audio" button is highlighted, with a sub-note "Test Speaker and Microphone". A checkbox at the bottom reads "Automatically join audio by computer when joining a meeting".
- 2**: A red circle highlighting the bottom toolbar area.
- 3**: A red circle highlighting a right-click context menu over a video tile of a man. The menu items are: "Unmute My Audio" (with "Alt+A" shortcut), "Start Video", "Choose Virtual Background...", "Choose Video Filter...", "Edit Profile Picture", and "Rename".
- 4**: A red circle in the top right corner of the meeting window.
- 5**: A red circle in the top left corner of the meeting window.
- 6**: A red circle highlighting the "Participants" button in the bottom toolbar.
- 7**: A red circle highlighting the "Chat" button in the bottom toolbar.
- 8**: A red circle highlighting the "Share Screen" button in the bottom toolbar.

The bottom toolbar includes icons for: Security, Participants (1), Polls, Chat, Share Screen, Pause/Stop Recording, Live Transcript, Breakout Rooms, and Reactions. A red box highlights the "Security", "Participants", "Polls", "Chat", "Share Screen", and "Pause/Stop Recording" buttons.

Key Zoom Notes

- 1) Audio Options
- 2) Mute / Unmute & Video Status
- 3) Additional features menu (R-click)
 - Virtual background / filter
 - Profile picture
 - Change displayed name
- 4) Attendee view options
- 5) Meeting being recorded
- 6) Participants list pane
- 7) Chat (Q&A)
- 8) Share screen – if applicable

Event Q&A in Slido

How to join:

- Scan the QR code



OR

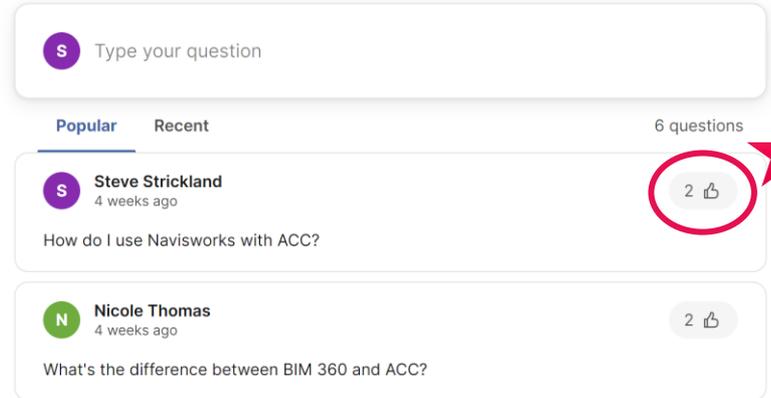
- Go to Slido.com and enter code **#2330806**

Joining as a participant?

2330806



- Enter your email address & name
- Confirm email with verification code



Welcome to
**Autodesk Digital Construction
School – Winter 2022**
Nov 14 – Dec 15, 2022

Email address *

Full name *

I agree to use my profile details while using Slido. [Learn more](#)

Join event

[Back to search](#)



Verify your email ×

Please check your email inbox for PIN code we have sent you to

Enter verification code

Confirm

Resend code

Didn't get the email? Check also spam and junk folders.

Workshop session details

Welcome to Autodesk DCS Winter 2022 - Imperial Inbox x 🔗

Autodesk Construction Cloud <acc-no-reply@autodesk.com> 2:43 PM (1 minute ago) ☆ ↶ ⋮
to me ▾

Autodesk Education Training • Autodesk DCS Winter 2022 - Imperial



Welcome to Autodesk DCS Winter 2022 - Imperial

Student ADSK,
Nicole Thomas added you as a member to Autodesk DCS Winter 2022 - Imperial.

If you can't access the project, [contact Nicole Thomas](#), the project administrator who invited you to this project.

[Go to your project](#)

Sign in

Email

hame@example.com

[NEXT](#)

NEW TO AUTODESK? [CREATE ACCOUNT](#)



Autodesk Construction Cloud

added to your address book to ensure you receive emails.

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Product ID: 03362064001192

- **Autodesk ID** email **MUST** match registration email
- **Project Invite emails** sent to all workshop registrants for both imperial & metric projects from: acc-no-reply@autodesk.com
 - Go to your Project
 - Sign in or Create Account
- Content is repeated everyday for all workshop sessions
- No software installations required for training
- Google Chrome is recommended browser
- Licenses & projects active for 30 days

Questions - Email us at construction.cloud.edu@autodesk.com

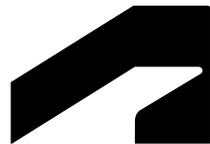
Autodesk Build workshop dates and times

<i>*Times shown are U.S. Eastern Time</i>	DAY 1 Wednesday, December 14 th	DAY 2 Thursday, December 15 th
11:00 – 11:15 am	WELCOME / OPENING REMARKS	
11:15 am – 12:30 pm	Autodesk Docs Document Management	Autodesk Takeoff 2D & 3D Quantity Takeoff
12:45 – 2:00 pm	Autodesk BIM Collaborate 3D Model Coordination	Autodesk Build Project & Field Management
2:00 – 2:30 pm	OPEN OFFICE HOURS / Q&A	
2:30 – 3:45 pm	Autodesk Build Project & Field Management	Autodesk BIM Collaborate 3D Model Coordination
4:00 – 5:15 pm	Autodesk Takeoff 2D & 3D Quantity Takeoff	Autodesk Docs Document Management

Presentation agenda

- About Autodesk Build
- Classroom exercise overview
- Instructor setup tasks
- Student exercise workflows
- Autodesk Build (Hands on)
- Learning resources and case studies
- Q & A



A 3D architectural rendering of a building's structural frame, showing a grid of dark, metallic-looking beams. The perspective is from a low angle, looking up at the structure, which is partially obscured by the text on the right.

Autodesk Build

Classroom ready exercises

Classroom ready exercises

Autodesk Construction Cloud



Autodesk Build for field management

- Submittal workflows
- RFI workflows
- Assets & Forms

Autodesk Docs

- Document management

Course applications
Construction management
Jobsite / Field management

Assets include:

For educators

- Getting started guide
- Exercise answer key
- FAQ
- Datasets (RVT, PDF, XLS)

For students

- Getting started guide and exercises

Classroom ready exercises

Autodesk Construction Cloud



Available now for download !

Autodesk Construction Cloud classroom assets

Access student exercises for preconstruction and field management using a cloud-based construction platform to reduce project risk and improve efficiency.



Autodesk Takeoff for quantification

These exercises introduce students on how to quantify projects for estimating in Autodesk Takeoff from 2D sheets and 3D models.

[Download assets](#)



Autodesk Build for field management

These exercises introduce students on how to manage building projects in Autodesk Build using RFIs, checklists, and submittals.

[Download assets](#)



Coming in 2023 – Model Coordination with BIM Collaborate

Workshop prework

Autodesk Build



Launch
Google Chrome



Login
acc.autodesk.com



Open project
Autodesk DCS Winter 2022
- Imperial or Metric



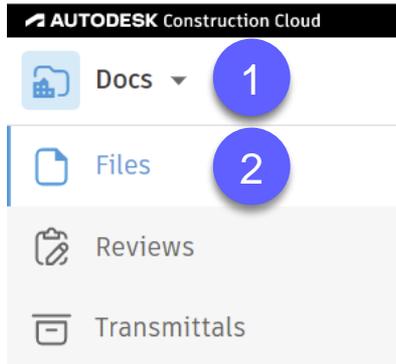
Account name:
Autodesk Education Training

Workshop prework

Autodesk BIM Collaborate

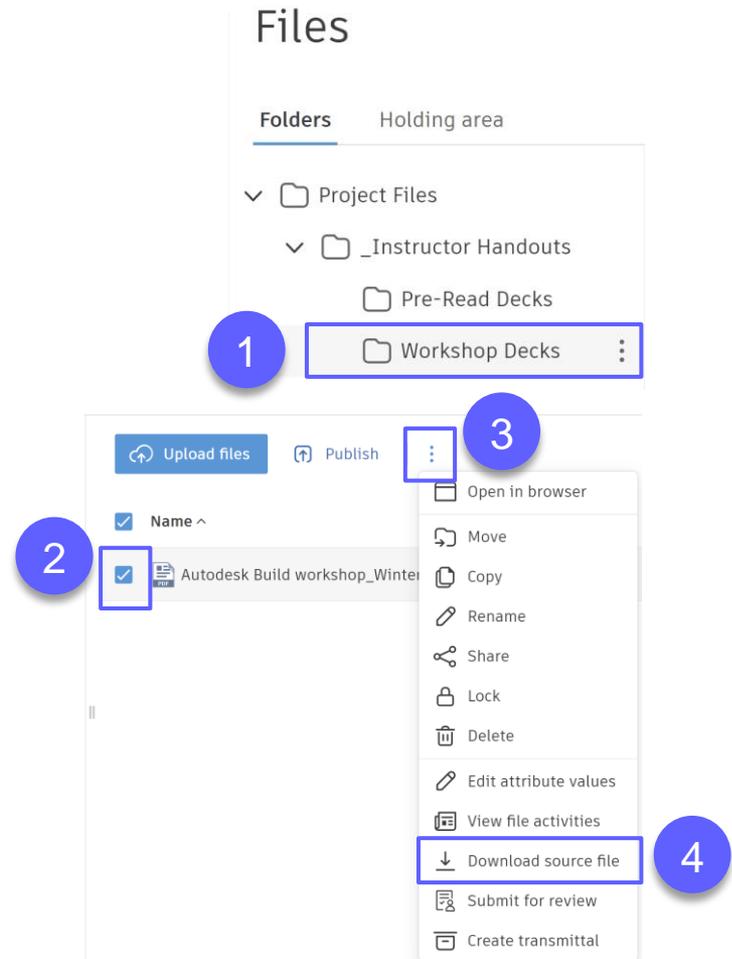
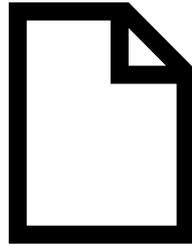
4

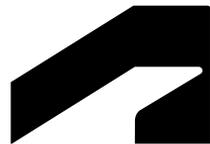
Set Module to
Docs



5

Download
Autodesk Build
Workshop handout





About Autodesk Build

Autodesk Construction Cloud Products

AUTODESK BIM Collaborate

Empower BIM experts to improve constructability of models, increase transparency in managing risk, and facilitate more efficient design collaboration.



Design Collaboration



Automated Clash Detection



Aggregated Model Coordination



Issue Management



PlanGrid Build Mobile App

AUTODESK Takeoff

Enable estimators to perform more accurate 2D takeoffs and generate automated quantities from 3D models.



2D Takeoff



3D Takeoff



Scope Analysis

AUTODESK Build

Empower builders with a field execution and project management solution to seamlessly collaborate and deliver construction projects on time, on budget.



Project Management



Cost Management



Quality Management



Project Closeout



Safety Management



PlanGrid Build Mobile App

AUTODESK Docs

Organize, distribute, and share files on a single, connected document management platform, ensuring all team members have access to the information they need.

***Not sold as standalone subscription**



Document Control



Document Versioning



Document Approvals



PlanGrid Build Mobile App

INSIGHT

Get up to speed with what's going on in a project, assess trends and patterns in project data, identify any gaps and problems, and use predictive risk data to improve project efficiency.

Dashboards

Reporting

Construction IQ

Data Connector

AUTODESK Build

Empower builders with a field execution and project management solution to seamlessly collaborate and deliver construction projects on time, on budget.



Project
Management



Quality
Management



Safety
Management



Project
Closeout

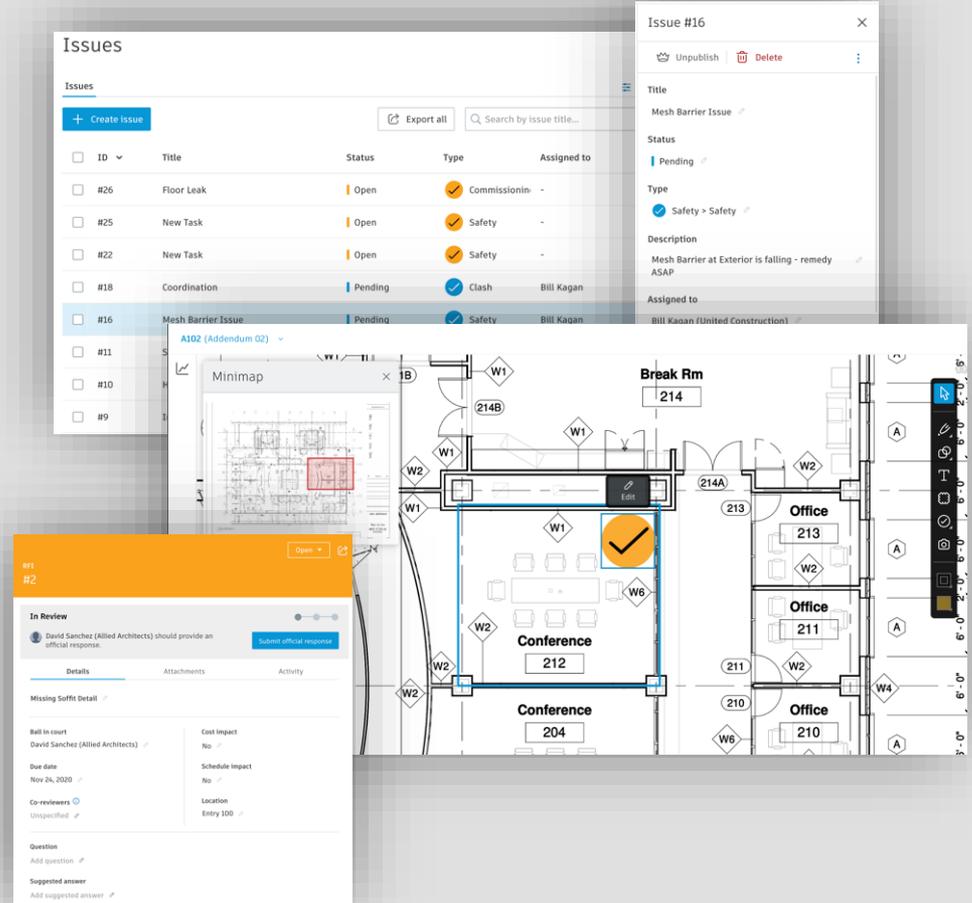


Cost
Management



Document
Management

 **AUTODESK** Construction Cloud



The screenshot displays the Autodesk Build interface. At the top, there's a navigation bar with the Autodesk logo and 'Construction Cloud'. Below it, a 'Issues' panel shows a list of issues with columns for ID, Title, Status, Type, and Assigned to. Issue #16, 'Mesh Barrier Issue', is highlighted. To the right, a detailed view of Issue #16 shows its title, status (Pending), type (Safety > Safety), and description ('Mesh Barrier at Exterior is falling - remedy ASAP'). Below the issues list, a 2D architectural floor plan is shown, with a red box highlighting a specific area. A 'Minimap' is visible in the top left of the floor plan view. At the bottom, a 'Details' panel for Issue #16 shows fields for 'Ball in court', 'Due date', 'Co-reviewers', 'Cost Impact', 'Schedule Impact', and 'Location'. A 'Question' section is also visible at the bottom of the details panel.

ID	Title	Status	Type	Assigned to
#26	Floor Leak	Open	Commissionin	-
#25	New Task	Open	Safety	-
#22	New Task	Open	Safety	-
#18	Coordination	Pending	Clash	Bill Kagan
#16	Mesh Barrier Issue	Pending	Safety	Bill Kagan
#11				
#10				
#9				

Issue #16

Title: Mesh Barrier Issue

Status: Pending

Type: Safety > Safety

Description: Mesh Barrier at Exterior is falling - remedy ASAP

Assigned to: Bill Kagan (Limited Construction)

Issue #16 Details:

In Review

David Sanchez (Allied Architects) should provide an official response. [Submit official response](#)

Details | Attachments | Activity

Missing Soffit Detail

Ball in court: David Sanchez (Allied Architects)

Due date: Nov 24, 2020

Co-reviewers: Unspecified

Cost Impact: No

Schedule Impact: No

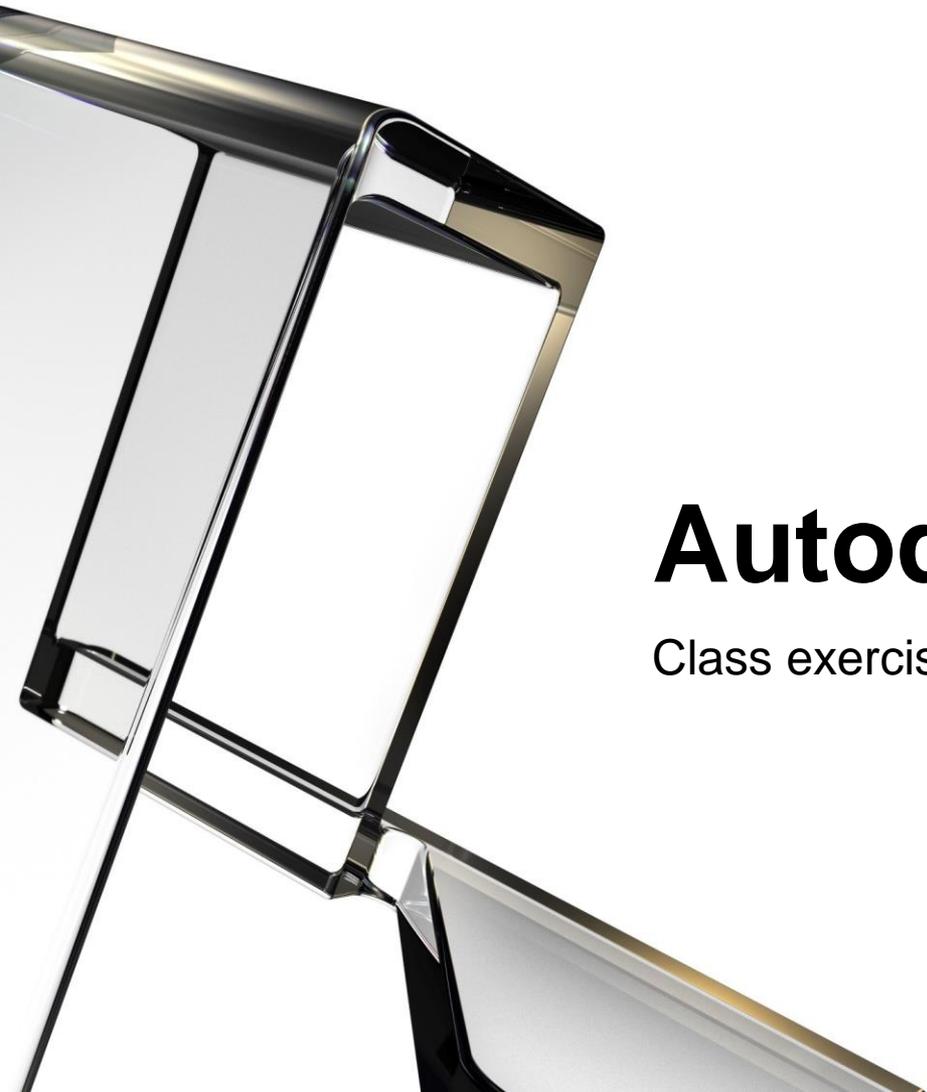
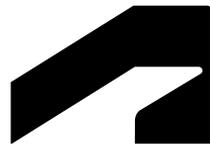
Location: Entry 100

Question

Add question

Suggested answer

Add suggested answer

A 3D architectural rendering of a building's structural frame, showing a complex network of white and grey beams and columns. The structure is partially visible on the left side of the slide, extending from the top left towards the bottom center.

Autodesk Build

Class exercise overview

Overall themes & goals

Autodesk Build

1. Cover common tasks that students will encounter when entering the workforce (e.g. Project Engineer role)
2. Show students the interconnected nature of project information and workflows in a platform like the Autodesk Construction Cloud, which is built on a Common Data Environment (CDE)
3. Create a foundation of learning from which educators and students can explore other tools and use it in new ways (e.g. group workflows, use of actual campus building documentation, etc.)

Additional Notes:

- Instructor setup steps have already been completed in the training project
- For purposes of the workshop, you are set up with the same role / permissions as a student
- Build exercises are an extension of knowledge in Docs exercises



PlanGrid Build mobile app – not directly included in exercises, encourage use in parallel

Instructor setup summary

Preparing the Autodesk Build environment for student exercises

1. **Project locations** | establish basic floor levels
2. **Files & Sheets** | upload Revit file and generate sheets
3. **Submittals** | set up Spec section and configure submittal permissions
4. **RFIs** | configure RFI permissions
5. **Forms** | set up VAV installation checklist template
6. **Assets** | establish asset categories, custom fields, and statuses; link form to asset

Student workflows summary

Autodesk Build

Part 1 – Submit RFI | Review & gather VAV box information, submit RFI

➤ *Instructor task(s) | Review and respond to student RFI re: VAV box liner insulation*

Part 2 – Generate Submittals | Create 3 submittal items for VAV box

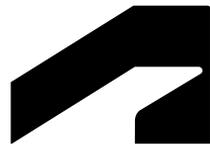
➤ *Instructor task(s) | Assign to submittal package, review and approve submittals*

Part 3 – Working with Assets | Create VAV box asset, input asset data, update status, add linked references

➤ *Instructor task(s) | Review student asset, data inputs, and linked information (optional – add Issue)*

Part 4 – Working with Forms | Fill out VAV installation checklist

➤ *Instructor task(s) | Review student form submission (optional – review Issues)*

A detailed 3D rendering of a complex mechanical component, possibly a part of a machine or tool, is shown on the left side of the slide. It features a polished, metallic surface with sharp edges and a central rectangular opening. The lighting creates strong highlights and shadows, emphasizing its three-dimensional form.

Autodesk Build

Instructor setup for class exercises

1 | Project locations

Establish basic floor levels

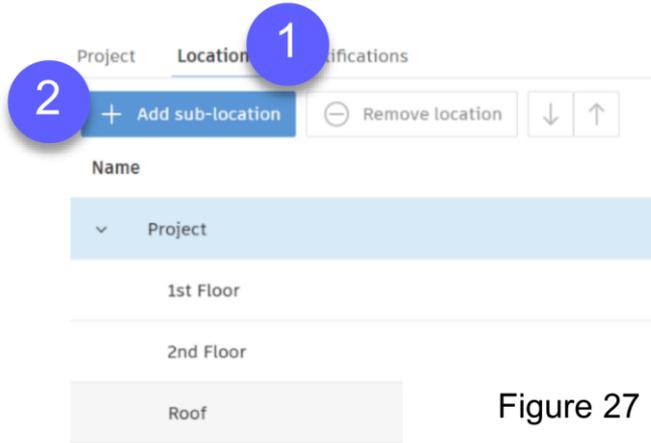


Figure 27

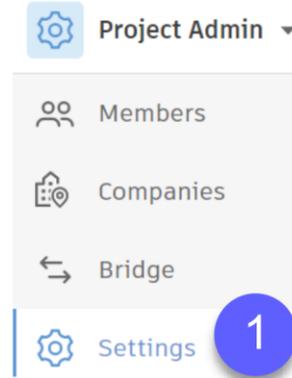
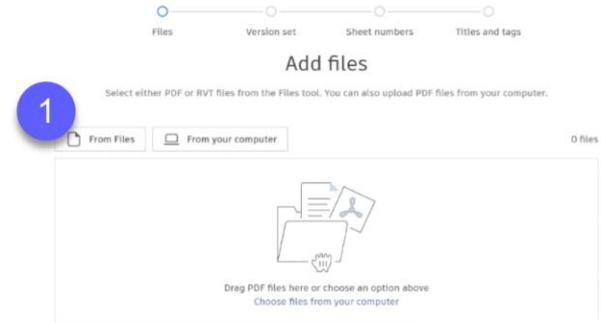
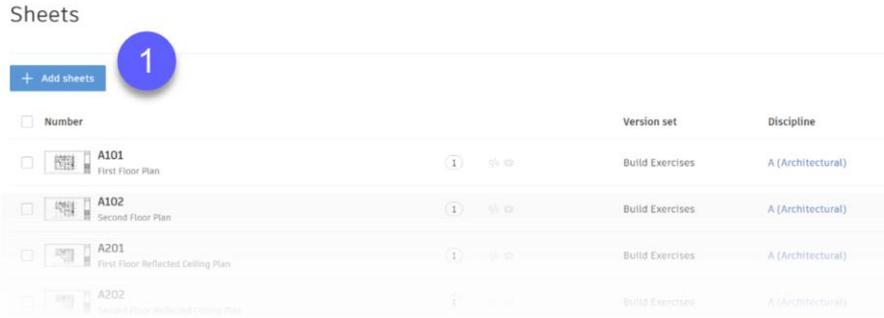
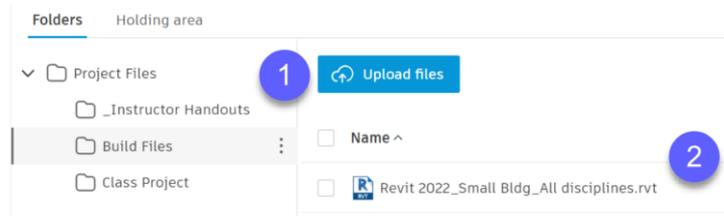


Figure 26

2 | Files & Sheets

Upload Revit file and generate sheets

- **VAV spec** | Project Files > _Instructor Handouts – 23 3600 AIR TERMINAL UNITS.pdf



3 | Submittals

Set up Spec section and configure submittal permissions

Submittals setup

Purpose: Processing Submittals requires the establishment of workflow permissions and the creation of specification sections to organize Submittal information.

1. Configure settings:

- a) From Autodesk Build module, select Submittals on the left side of the screen.



- b) You will be notified that the Submittals service requires activation. Click Go To Settings.
- c) Select Permissions tab within the settings interface, then type / select your name in the text box and click the Add button.
- d) For Settings within the other tabs (Default Values, Responses, Types), no further action is required.

2. Create specification section:

- a) Select Submittals on the left side of the screen to return to the main submittals tool interface.
- b) Select the Spec sections tab (Figure 32, mark 1) and click Create Spec Section (Figure 32, mark 2).
- c) Create the following spec section: 23 3600 – AIR TERMINAL UNITS.

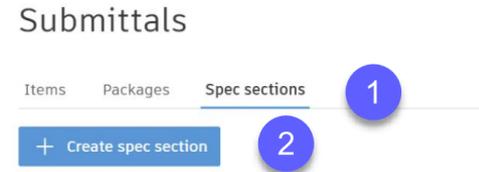


Figure 32

4 | RFIs

Configure RFI permissions

Create permissions by role: On the Permissions tab, leave the default of Everyone designated as a Creator (Figure 34, mark 1) but create the following additional permissions:

- For yourself, select your name in the Add new member box (Figure 34, mark 2) and select the Reviewer designation in the Workflow role box (Figure 34, mark 3), then click the Add button.
- For students, select the Project Engineer role in the Add new member box and select the Manager designation in the Workflow role box, then click Add.

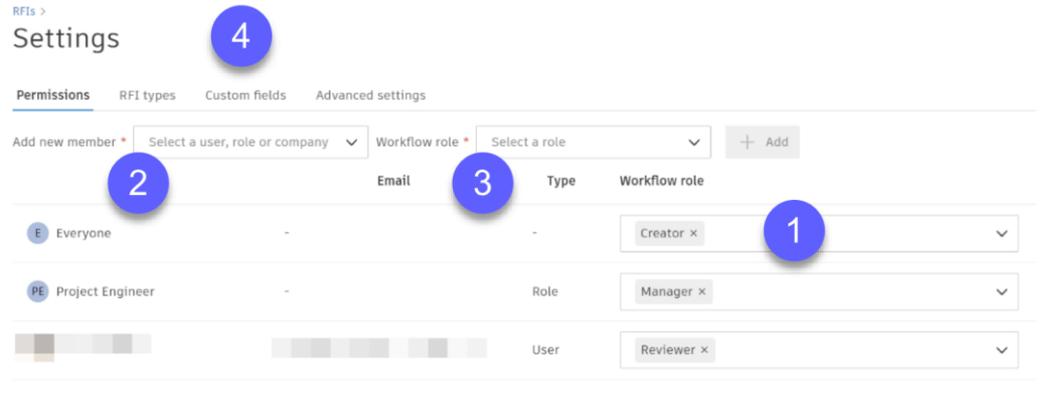


Figure 34

5 | Forms

Set up VAV installation checklist template

ALTODESK Construction Cloud

Build

Forms

Template Builder

Basic Information

Template title
VAV Installation Checklist

Template type
Quality

Description
Description placeholder

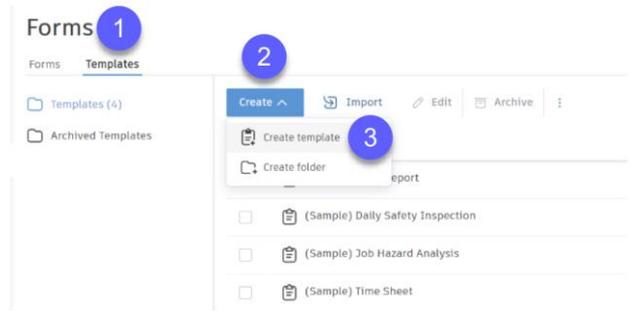


Figure 35

When someone submits a report, their name and the submission date will be added automatically. Submitters can modify the report date and add notes and references to each question.

1. Install Fan-Powered Box

Placeholder description

1.1 Select VAV location

Placeholder description

Yes / No / NA True / False / NA Plus / Minus / NA Pass / Fail / NA

Preconfigured responses

1.2 Position VAV unit

Placeholder description

Yes / No / NA True / False / NA Plus / Minus / NA Pass / Fail / NA

Preconfigured responses

1.3 Install VAV unit

Placeholder description

Preconfigured responses

ADD SECTION

- New Section
- Equipment
- Materials
- Notes
- Weather
- Work Log

ADD ITEM TO SECTION

- Question
- Signature

Notes:

- Exercise uses the 'Form Builder' (demo) – also can use PDF for forms
- Forms are a good opportunity for students to explore the PlanGrid Build mobile app in parallel

6 | Assets

Establish asset categories, custom fields, and statuses; link form to asset

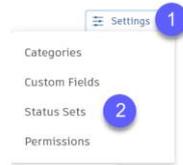


Figure 40

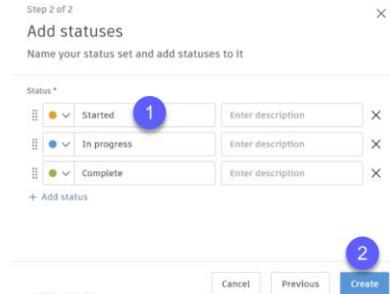


Figure 41

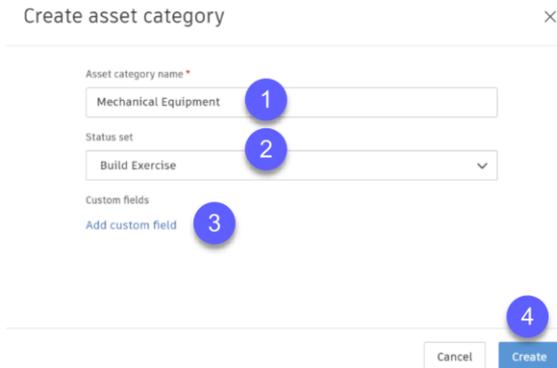


Figure 44

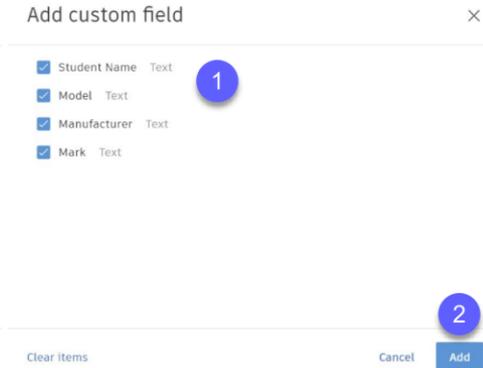


Figure 45

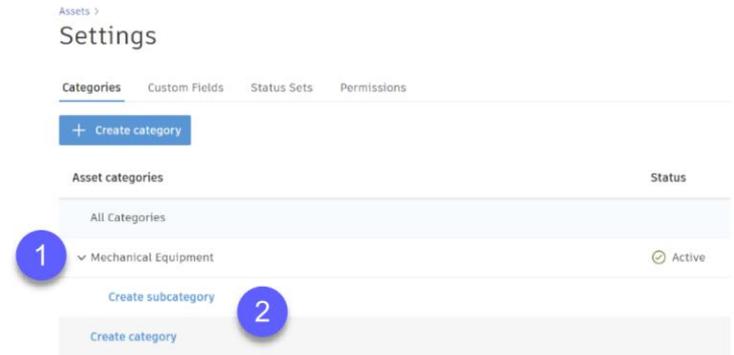
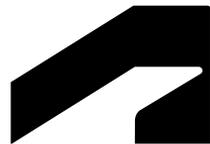


Figure 46



Autodesk Build

Student exercise workflows

Part 1 | Submit RFI

Review & gather VAV box information, submit RFI

2D view (Sheet M102 shown)

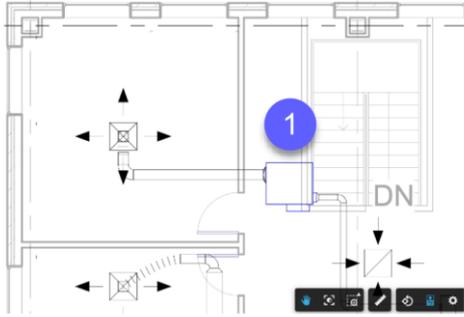
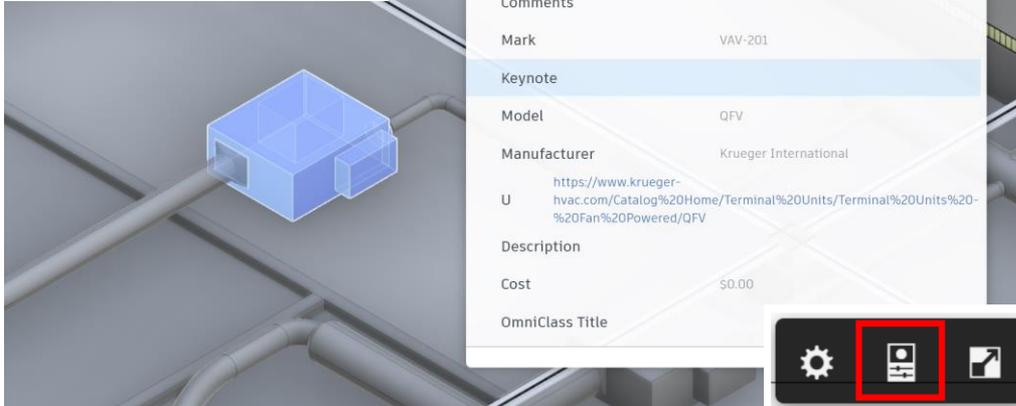


Figure 19



Create RFI

Status *
Open For reviewer

RFI number * ⓘ
1

Title *

Type
Default RFI workflow

Ball in court *
Select member

Co-reviewers ⓘ
Search by members, roles or companies

Due date
Choose date

Location
Select locations

Location details
Enter location details

Cancel Create

Part 2 | Generate Submittals

Create 3 submittal items for VAV box

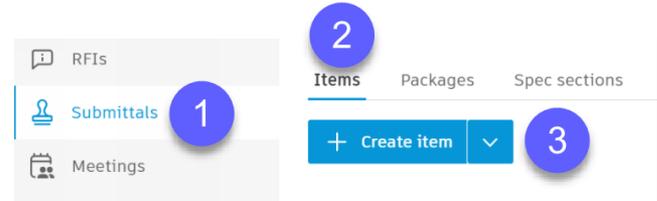


Figure 23

*Spec Section	Sub spec section	*Title	*Type	*Assign to manager	Attachments attach from your computer
23 3600 Air Terminal Units	1 1.3-A.1	Student name (last, first) – Air Terminal Units	Product Data	Instructor name	Dimensional Submittal – VAV with Hot Water Reheat
	2 1.3-A.2	Student name (last, first) – Liners	Product Data	Instructor name	Liner Submittal – per RFI submitted in Part 1
	3 1.5-A	Student name (last, first) – O&M Manuals	O&M Manuals	Instructor name	Installation, Operation, & Maintenance Manual

Figure 24

*Indicates required field

Submittals

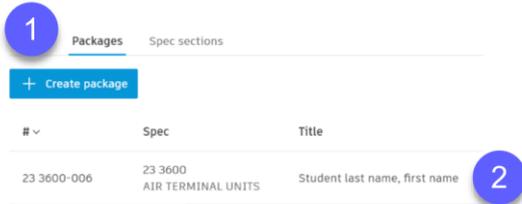


Figure 25

Packages > 23 3600-004

+ Add Items

Status	# ^	Spec	Rev	Title	Type	Priority	Ball in court	Due date	Final response
Closed	9	23 3600 AIR TERMINA...	0	- Air Terminal ...	Product Data	Normal		-	Approved
Closed	10	23 3600 AIR TERMINA...	0	- Liners	Product Data	Normal		-	Approved
Closed	11	23 3600 AIR TERMINA...	0	- O&M Manuals	O&M Manuals	Normal		-	Approved

Showing 1 - 3 of 3

Figure 31

Part 3 | Working with Assets

Create VAV box asset, input asset data, update status, add linked references

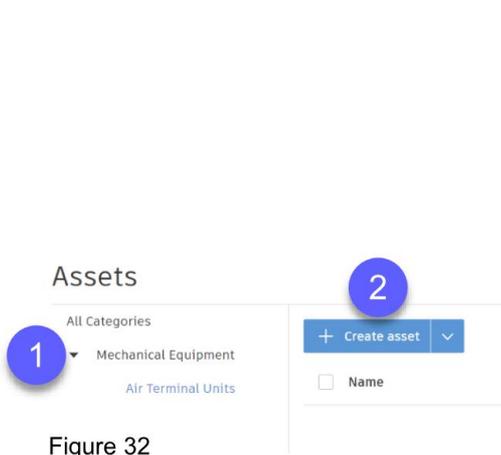


Figure 32

The 'Create asset' form is shown in a modal window. It contains the following fields and options:

- Name ***: Text input field with placeholder 'Enter a name'.
- Category ***: Text input field with 'Air Terminal Units' selected.
- Status ***: Dropdown menu with 'Started' selected.
- Location**: Dropdown menu with 'Select a location' selected.
- Description**: Text area with placeholder 'Describe the asset'.
- Barcode**: Text input field with placeholder 'Enter a barcode'.
- Mark**: Text input field with placeholder 'Enter text'.
- Model**: Text input field with placeholder 'Enter text'.

At the bottom of the form, there is a checkbox 'Create another asset', a 'Cancel' button, and a 'Create' button.

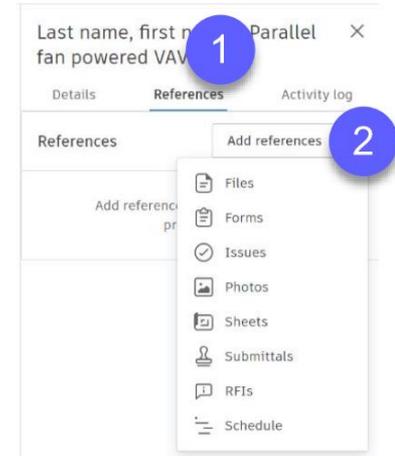


Figure 33

Part 4 | Working with Forms

Fill out VAV installation checklist

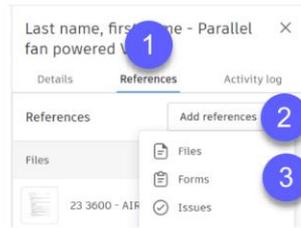


Figure 34

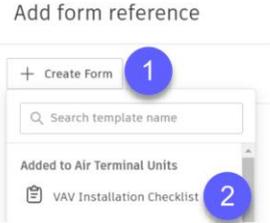


Figure 35

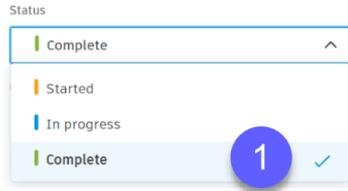


Figure 36

Forms VAV Installation Checklist

This draft is visible to reviewers.

Form Details

Form date
8/3/2022

ID
#5

Location
Select a location

Description

Editable only by Stephen Strickland

Currently visible to 3 reviewers

1. Install Fan-Powered Box

1.1 Select VAV location *

Pass Fail NA

Photos Issues Note

1.2 Position VAV unit *

Pass Fail NA

Photos **Issues** Note

1.3 Install VAV unit *

Pass Fail NA

Photos Issues Note

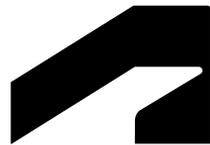
2. Make Duct Connections

2.1 Connect supply duct *

Pass Fail NA

Photos Issues Note

Bonus Task | Create issue from Form



Autodesk Build

Hands on demonstration

Workshop prework

Autodesk Build



Launch
Google Chrome



Login
acc.autodesk.com



Open project
Autodesk DCS Winter 2022
- Imperial or Metric

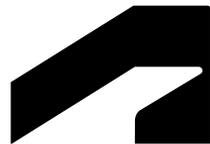


Account name:
Autodesk Education Training

Autodesk Build hands-on

- Autodesk Build user interface overview
- Locations
- Files & Sheets
- RFIs
- Submittals
- Forms
- Assets



A 3D architectural rendering of a building's structural frame, showing a complex network of dark, metallic-looking beams and supports. The structure is partially visible on the left side of the page, extending from the top left towards the bottom center. The beams are thick and have a reflective, brushed metal texture. The overall composition is clean and modern, with a white background.

Autodesk Build

Learning resources and case studies

Learning resources

Autodesk Build



Learn Autodesk Construction Cloud portal

AUTODESK
BUILD



Getting Started in Autodesk Build

Learn how to get started in Autodesk Build with some of the basics!

FREE 25 min

AUTODESK
BUILD



Project Templates

Learn how to streamline the process of creating multiple projects by setting up project templates.

FREE 19 min

Curriculum (25 min)

▶ Introduction to Autodesk Build (2 min)

Getting Started in Build

▶ Getting Started (4 min)

Getting Started via Web

▶ Account Navigation Basics via Web (3 min)

▶ Project Navigation Basics via Web (2 min)

▶ Project Home via Web (4 min)

Getting Started via Mobile

▶ Account Navigation Basics via Mobile (4 min)

▶ Project Navigation and Project Home Basics via Mobile (4 min)

Where to Find Help

▶ Help Resources (3 min)

▶ Short Survey

Conclusion

▶ Course Wrap-Up

▶ Related Content

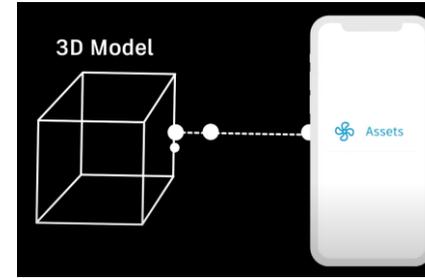
▶ Training and Support

Partial listing shown

New - Model Based Workflows for Assets

Autodesk Build

- Model based workflows in the Assets tool in Autodesk Build allows users to easily extract and map asset and equipment information from a model so that teams can start visually tracking assets. By leveraging these capabilities, users will be able to view an asset's location in the model, view and edit any asset properties, and interact with other construction workflow references including Issues, RFI's, Forms, and more.
- The model-based workflows in the Assets tool gives teams the ability improve progress tracking by connecting elements and properties from a model to assets and asset fields. This connects design workflows to construction to help ensure data integrity, drive better decision making, save time, and improve schedule control.



Case studies

Autodesk Build



Modular Power Solutions Standardizes Its Manufacturing Process with Autodesk Build

Modular Power Solutions (MPS) – a subsidiary of Rosendin Holdings – was founded in 2011 to bring end-to-end design, engi.....

Customer Story

[READ](#)



Pond & Company Answers RFIs and Submittals 30% Faster with Autodesk Build

Pond & Company (Pond) has built a reputation as the go-to international firm for designing, engineering, and building in.....

Customer Story

[READ](#)



Creating A Connected Experience for the Expansion of Copenhagen's Metro with Autodesk Build

Copenhagen's Metro (Metroselskabet I/S) with as little as two minutes between driverless trains has been voted the best

Customer Story

[READ](#)

Questions and Answers



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