PBOT
Capital Project Plan Review SOP

September 2025

Narrative

The PBOT Plan Review Standard Operating Procedure (SOP) is a document intended as a guide for plan reviews. Reviewing plans is an important part of every project, whether the project is designed in-house, or using a consulting engineering firm.

Typically, there are 4 review phases: 30%, 60%, 95% and Final. The exact plan sheets needed for each project can vary based on several factors including: size, complexity, potential risks, constructibility, funding type (ie: federally funded), contract type, ROW ownership, etc. The required reviews needed for each project vary as well, especially on smaller, less complex projects.

a) 30% design is typically a 2D layout design with limited detailing.
b) The 60% and 95% are full, detailed design plans.
c) The Final design is a complete plan set, used addressing previous comments and doing a final check.

Plan Reviews are completed by the review team, which includes several sections of PBOT staff typically including Civil, Traffic, Construction, SSL and Structural, CAD, Modal Coordinators, Interagency Reviewers, Survey, ROW, Planners and Asset Managers.

The steps involved depend on whether the project is designed inhouse or by a consultant.

<u>For inhouse projects:</u>

1) Setup Plan for Review
2) Review Plans
3) Consolidate Review Comments
4) Respond to Comments by City
5) Upload files to Ebuilder

<u>For Consultant projects:</u>

1) Intake Consultant Plans
2) Setup Plan for Review
3) Review Plans
4) Consolidate Review Comments
5) Respond to Comments by Consultants
6) Upload to Ebuilder

The remainder of the document describes these steps for each project plan reviews.

Table of Contents

Responsible Party

Step	Inhouse Projects	Consultant Projects
Setup Plan for Review	CED Designer	1) Consultant Submits Deliverable 2) CED intake 3) CED sets up Review Session
Review Plans	City Review Team	City Review Team
Consolidate and Review Comments	1) Designers Review all comments 2) PM Setup meeting with Design team and Reviewers	1) Designers Review all comments 2) CED leads review team to consolidate comments and prep for consultant 3) PM setup meeting with Consultant and Reviewers to go through consolidated comments
Respond to Comments	Review Team including CED, Traffic, SSL, CM, PM etc.	Consultant Team

Definitions

CED Designer - lead designer in PBOT Civil Engineering and Drafting Section

CED intake - Step where CED design checks deliverable for completeness

Review Session - Cloud based PDF that can be accessed by multiple reviewers using Bluebeam

Review Comments - suggested changes or concerns on engineerings deliverables

Review Team - group of City staff assigned to project providing review comments on deliverables

CED - PBOT Civil Engineering and Drafting Division

Traffic - PBOT Traffic Design Division

SSL - PBOT Signals and Street Lighting Design Division

CM - Construction Manager from PBOT Construction Division

CIP - PBOT Capital Improvement Projects

Consultant - Contracted designer and stamping engineering firm responsible for contract design deliverables, including any subconsultants

Consultant Response Required - comment to consultant that requires a response

Consultant FYI Only - comment to consultant that only requires acknowledgement. To be used sparingly

Bluebeam - Software application for editing PDFs and creating Review sessions

Profile - settings and tools for use in Bluebeam review sessions

Tool Set - group of tools and markings to be used in bluebeam

Revu Tab - tab at top left next to file and edit in Bluebeam

One Drive - microsoft shared drive use by City employees

Page Labels - short name of each sheet (ie: 1,2, 2f, 2e, 3, 3a, etc.)

Bookmarks - shortcut to view sheets in Bluebeam

Scale - a ration that represents the relationship of distance on plans to distance in the real world

Status - feature in bluebeam that allows users to track and manage comments on a PDF.

Status Model - group of status' in Bluebeam

Status State - Individual status in Bluebeam

Reply - way to comment on someones elses review comment

How to Video
Setup Profile
Youtube

Profile Setup

Purpose: Use shared settings and tools in Bluebeam. Only for City employees.

Having trouble loading tools and/or settings? Ensure you're using the latest Profile

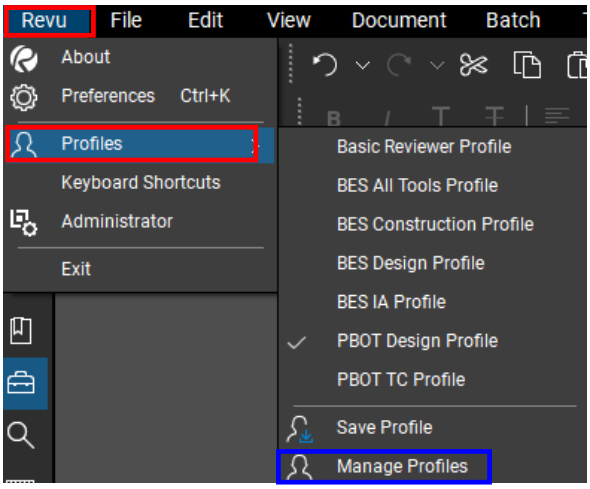
1) Connect Bluebeam Folder to One drive

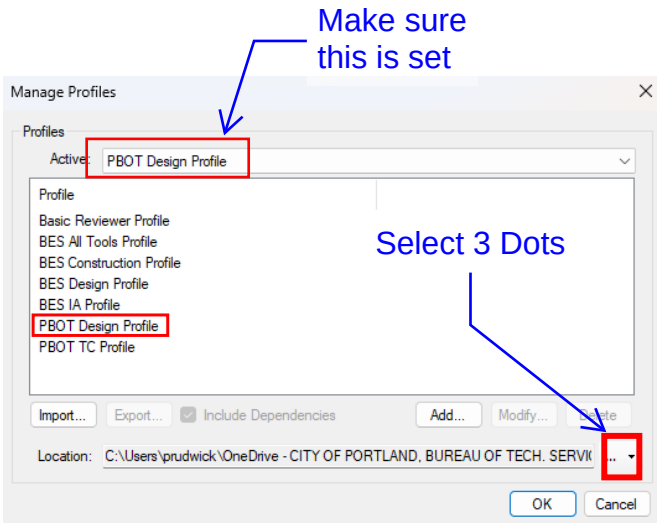
a) Navigate to City Bluebeam Users Team Channel
b) Click on "Add Shortcut to One Drive"

Click: https://portlandoregongov.sharepoint.com/:f:/r/sites/CityBluebeamUsers/Shared%20Documents/General?csf=1&web=1&e=DRk902

2) Load Profile in Bluebeam

a) Go the Revu tab (next to file)
b) Select Profiles
c) Select Manage Profiles
d) Navigate to the General – City Bluebeam Users\Bluebeam Profiles Tools and Manuals\Profiles, folder in your OneDrive shortcuts and click Select Folder





Example Path:

C:\Users\~~prudwick~~\OneDrive - CITY OF PORTLAND, BUREAU OF TECH. SERVICES\General - City Bluebeam Users\Bluebeam Profiles Tools and Manuals\Profiles

Setup Plan for Review

City Intake of Consultant Plans

Purpose: City ensures all deliverables are submitted on consultant projects and deliverable is ready for review. If it is not ready, consultant will need to make adjustments and resubmit. While this will slow down the project, it ensures that the city doesn't waste time reviewing and holds consultants accountable for deliverables.

Note: this step is for consultant projects only. For inhouse design, skip this step

1) CED designer reviews deliverable package for completeness

a) CED designer reviews submittal to ensure that all project deliverables have been provided.
b) This step is meant for completeness only

2) If items are missing, check with PM to ensure they are in Consultant Scope

3) Check with other groups as needed if any questions arise

4) Check with your supervisor and PM prior to rejecting a submittal. Do not reject a submittal lightly.

a) If you plan to reject a submittal, write down exactly what is missing, referencing the consultant scope as needed.

b) Work with the PM and consultant to get the project back on track.

Setup Plan for Review

Setup Plan for Review

How to Video
Make Review Session
Youtube

Purpose: Setup a Bluebeam Session that can be accessed by reviewers on the review team to make comments.

Steps:

1) Setup Planset for Bluebeam Review

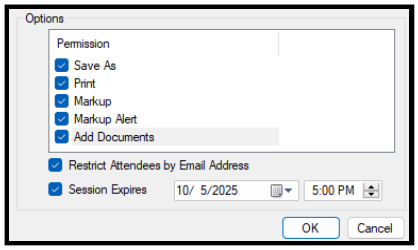
a) Setup PDF prior to uploading to a session
b) add in Bluebeam Session Review Checklist
c) add page labels
d) add bookmarks
e) Set Scale

Bluebeam Session Review Checklist
☐ Page Labels
☐ Bookmarks
☐ Set Scale
Session Created by:
xx
_____
put this note on cover sheet before uploading to a session

2) Create Bluebeam Session

a) Sign into the Studio Account
b) Click the + sign to start a new session
c) Make a session name that includes Project number, project name, Review type and Due date
d) Ensure "Restrict Attendees by Email Address" is unchecked
e) Optional: set Session Expiration date.

Example Session Name:
T00724 - Division Midway - 60% Review [Due 10.05]



3) Add Documents to Session

a) Plans
b) Estimate
c) link to specifications (sharepoint)
d) Comment Responses from Previous Review
e) other documents needing review

Example List of Documents:
a) T00724 - 60% Plans.pdf
b) T00724 - 60% Estimate.pdf
c) T00724 - 60% Link to Specs.pdf
d) T00724 - 30% comment responses.pdf
e) T00724 - Stormwater Report.pdf

4) Request Comments from Reviewers Using Ebuilder

a) Open Plan Review Matrix (Eng/CPD website)
b) Request Comment from Reviewers
c) Coordinate with project team and/or critical reviewers as needed

https://www.portland.gov/transportation/engineering/capital-project-delivery#toc-checklist-plan-review

5) Complete Review

a) Open Plan Review Matrix
b) Request Comment from Reviewers
c) Coordinate with project team and/or critical reviewers as needed

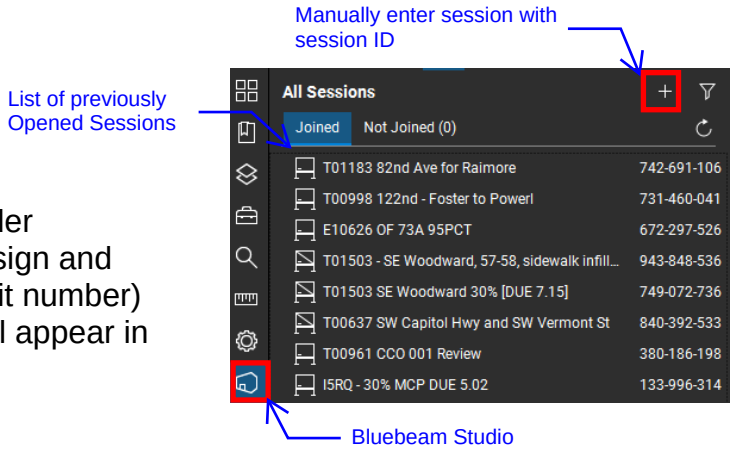
Review Plans

Review Plans

How to Video
Review Plans
Youtube

Purpose: Review Plans in way that clearly communicates design concerns and project risks

Steps:



1) Open Review Session

a) Option 1: Click on the Link in ebuilder
b) Option 2: In Bluebeam, click the + sign and enter the Bluebeam Session ID (9 digit number)
Note: Previously opened Sessions will appear in Bluebeam Studio list

2) Open document within Review Session

a) Review Sessions hold multiple documents
b) All comments should be made in review session
c) Ensure the comments are on the sheets of the designer who will be responding to those comments (ie: civil comments on civil sheets)

Who is comment made to? Who is reviewer expecting a response from?
a) Make comments to Civil on Civil Sheets
b) Make comments to Traffic on Traffic Sheets
c) Make comments to SSL on SSL Sheets

3) How to Make Comments

a) See below for Review Comment Legend
b) Consultant Legend to be used for consultant projects

Legend
Replace exactly
Comment
= delete
notes to reviewers

Consultant Legend
Consultant Response Req'd
Consultant FYI
notes to reviewers

Consolidate and Review Comments

Purpose: Filter comments before responding. Talk to internal project team and reviewers to clarify any questions about comments and/or resolve conflicting comments.

For consultant projects, consolidate comments with project team before delivering to the Consultant to ensure internal team dialogue, unnecessary or conflicting comments are removed.

1) End Review Session and Save Comments

a) Save out a copy and place on S: Drive
b) Upload a copy to ebuilder. Save plan comments in plan box and all other files zipped together as one file. These are the "raw" comments and should be uploaded as is, without editing or consolidating.

2) Inhouse projects

a) CED designer, Traffic Designer, SSL designer, etc. goes through all comments on their respective sheets and discuss with reviewer who made the comment any comments that are in question.
b) Ensure comments for each group are on the correct sheet (ie: civil comments on civil sheets, traffic comments on traffic sheets). Any comments that are misplaced (ie: civil comment on traffic sheet) need to be coordinated with the correct group.

3) Consultant Projects

a) Design team goes through all comments and discuss with reviewer who made the comment any comments that are in question.
b) All conflicting comments need to be resolved prior to sending to consultant to ensure clear direction
c) Ensure all comments that require comment vs comments that are fyi only are labeled correctly prior to sending to consultant.
d) Coordination between the design team needs to occur prior to sending comments back to consultant, typically with an internal meeting.

Respond to Comments

Respond to Comments

How to Video
Respond to Comments
Youtube

Purpose: Provide documentation for addressing comments from all reviewers.

Responding to comments is required for inhouse projects. For consultant projects, the consultant will respond to the reviewer comments.

1) Open consolidated comments and saveas to make a new file called "T00XX Comment Reponses XX%" For Example: T00724 Comment Responses 60.pdf

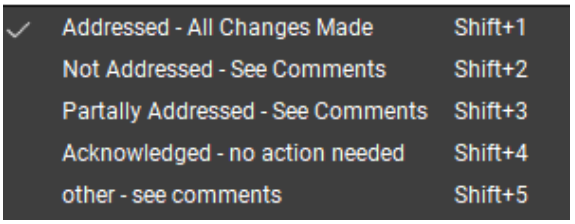
2) Place the Comment Reponses Titleblock on the cover of your drawing. (requires the PBOT Profile)

3) Ensure correct status model is open. For consultants, relatively easy to recreate the PBOT Review status model (see consultant FAQ)

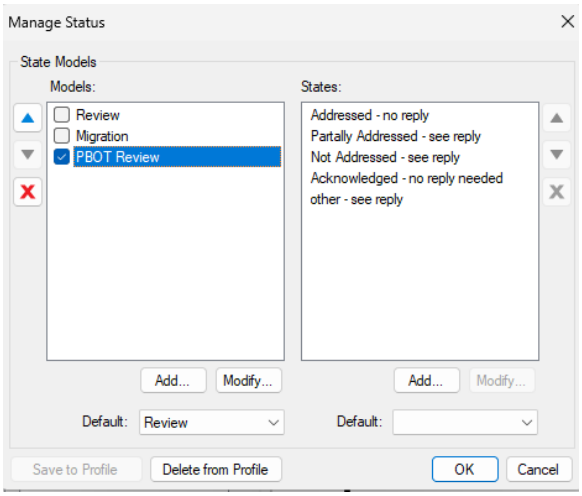
4) For larger projects, it may be easier to setup a Comment Response Bluebeam Session. Sessions limit functionality, but you can apply status or reply to comments. Ensure the titleblock has been placed on the comment response prior to creating the session

5) Set Status (and Reply) to respond to comments

a) Right-Click and Set Status - the color of the comment should change if status' are setup correctly
b) Right-Click and Reply



note: status shortcuts : shift-1, shift-2, etc. Reply shortcut: Rightclick R



Comment Responses

Addressed - no reply

Partially Addressed - see reply

Not Addressed - see reply

Acknowledged - no reply needed

Other - see reply

CR Created by:
XX

put this CR legend on cover sheet

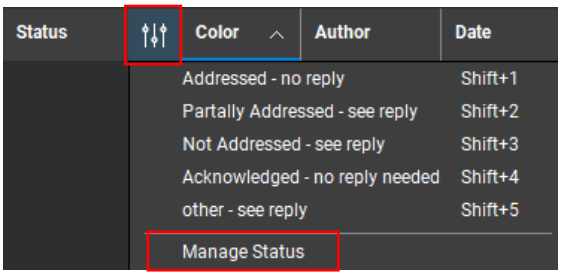
Consultant FAQ's

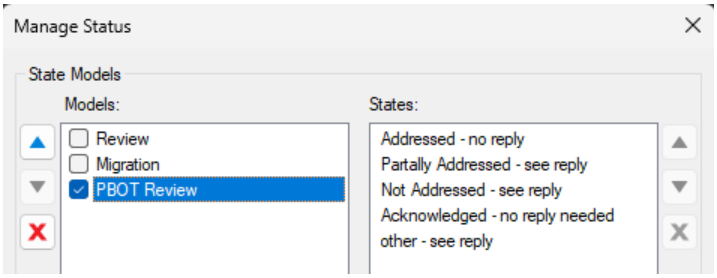
How to Video
Setup Status Model
Youtube

Purpose: Specific information for Consultants and Consultant Projects

Question1) Are these standards required? Are there other ways to track and respond to comments?
Answer 1) Any changes to the list need to be cleared with project PM and project team.

Question2) I don't have access to the PBOT profile. How do I respond to comments?
Answer2) The comment response status model is relatively easy to recreate
Answer2.1) open markups, select settings next to status, select manage status





Answer2.2) Add a new model, call it "PBOT Review"
Answer2.3) Add 5 new states as shown below

Answer2.4) Consider saving your profile
Answer2.5) If someone has the status model created and selected and then makes a markup on a drawing, status model is saved into the pdf and can be used by other users in a pdf or a session.

Upload to Ebuilder

Purpose: Upload Plan Review Comments and Comment Responses to ebuilder for tracking and as a project repository

Ebuilder is the official place to save comments and comment responses for plan reviews. Working files can be stored and edited on PBOT servers (S Drive).

The Raw Comments (unconsolidated) should be uploaded to ebuilder when the review is complete. For consultant projects, the consolidated projects should also be uploaded to ebuilder and clearly labeled as such.

Comment Responses should be uploaded to ebuilder when they are completed.