

Autodesk Construction Cloud (ACC) Guide-Change Order Process

Facilities Management

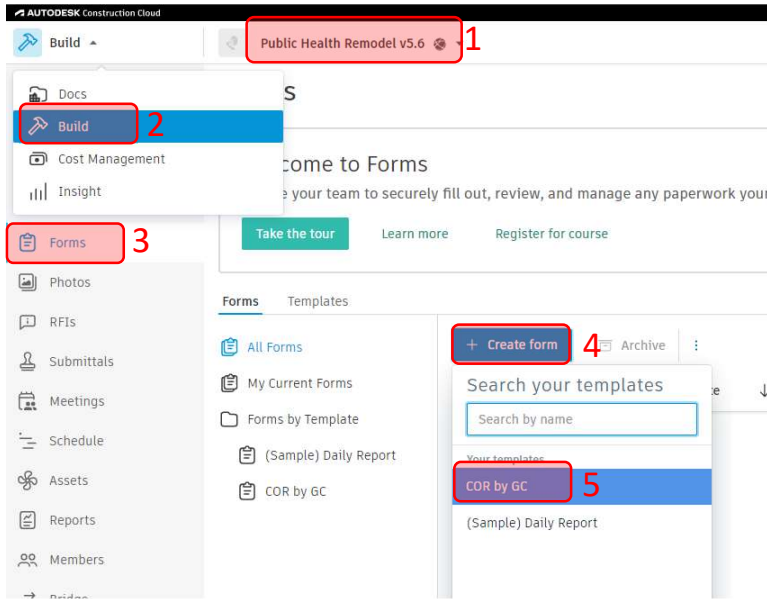
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For entire process, see https://youtu.be/hrmQRMjR_Ms

1. Build-Contractor Completes GC by COR form

Select the correct project from the drop down near the upper left. Go to *Build > Forms*. Click blue “+ Create form” button, select *COR by GC*

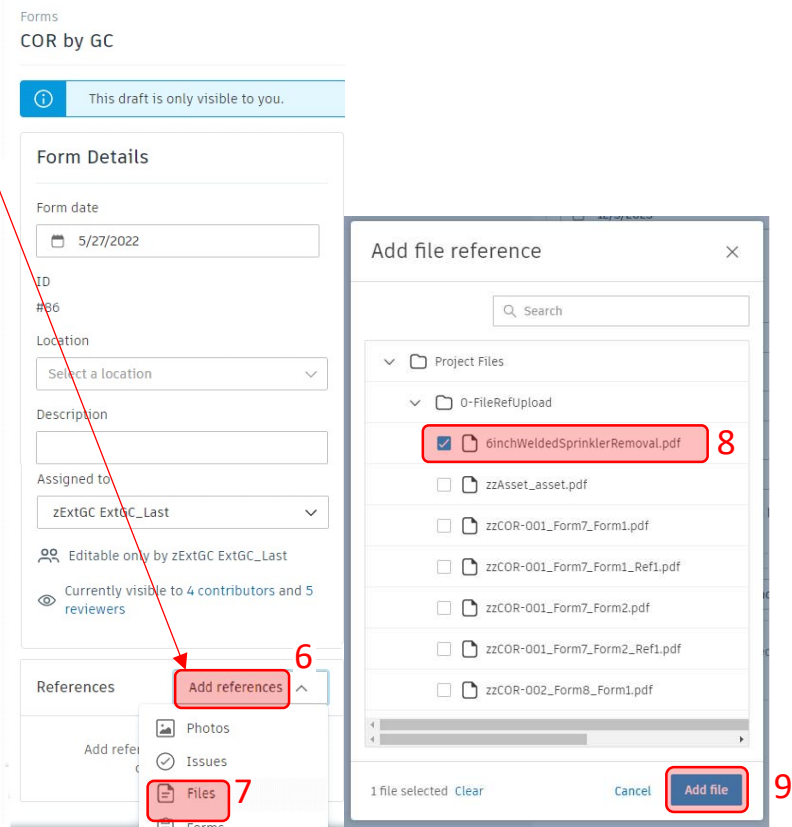


Fill out form per instructions on form, copied below. **Steps 1-4 of Form**

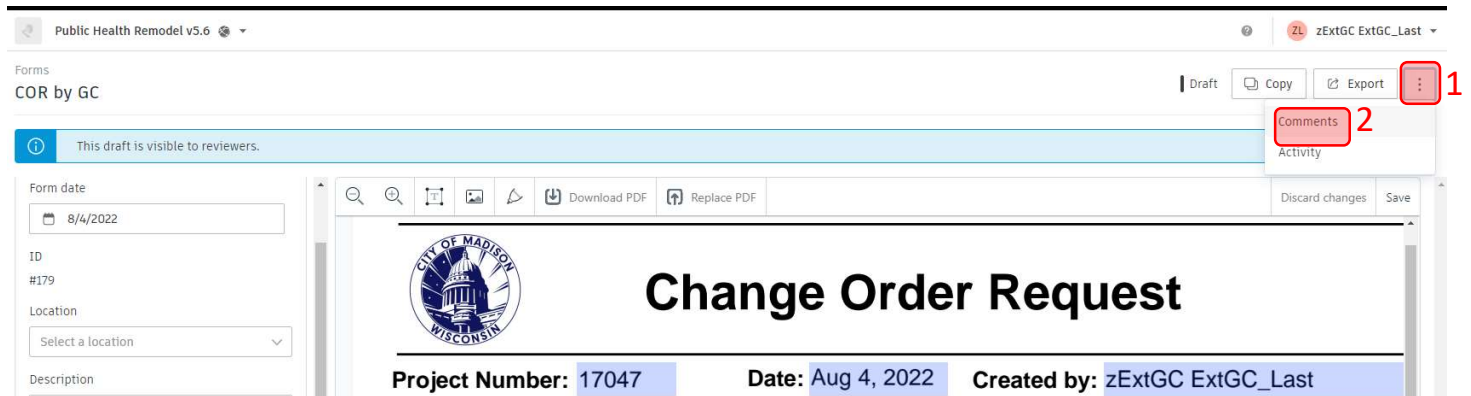
- Instructions to General Contractor:**
1. Open new browser tab or window to *Files* tab. Upload PDFs documenting COR costs to folder *0-FileRefUpload*
 2. In *References* section, to the left of form window > *Add Reference* drop down > *Files*. Navigate to file from step 1.
 3. Input name, and check box below as needed.
 4. Input values in fields highlighted in light blue, all other fields self-calculate.
 5. **Submit** when complete.

NOTE: Not all file types can be referenced, but PDF, DOCX, XLSX, PNG, JPG are among supported file types. Other references (*Photos, Issues, Forms, and Assets*) are not supported at this time.

TIP: You can open the *Files* tab of *Build* in a new window or tab. This will allow you to drag and drop a file to the *0-FileRefUpload* folder without navigating away from the form. The file must be uploaded prior to open the *Add File Reference* dialog box. Files attached to forms are automatically renamed to keep any new uploads to *0-FileRefUpload* at the top of the list.



At any time (regardless of whether the form is editable to user) a contributor or reviewer can add comments on the form (indicated by 1 & 2). Use @ and autocomplete individual or role name to send them a direct email notification. All other contributors and reviewers are notified with each comment.



Public Health Remodel v5.6

zExtGC ExtGC_Last

Forms

COR by GC

Draft Copy Export

This draft is visible to reviewers.

Form date: 8/4/2022

ID: #179

Location: Select a location

Description:

Download PDF Replace PDF

Discard changes Save

Change Order Request

Project Number: 17047 Date: Aug 4, 2022 Created by: zExtGC ExtGC_Last

Once complete, hit submit in the lower right. This will submit the form to the Construction Manager for Review.

2. Build-Construction Manager Reviews GC by COR form

Construction Manager will receive an email that a form has been assigned to them for review. Follow link to get to the form. The Construction Manager can review the form and its referenced files. Use the comments feature shown on the previous page (indicated by 1 & 2) to interact with Contractor and other contributors or reviewers. Use @ and autocomplete individual or role name to send them a direct email notification. All other contributors and reviewers are notified with each comment.

Forms in the *Review* state can proceed one of two ways. *Send back to editors* if any changes are needed by the Contractor. Or, once everything has been reviewed and is ready to process as a Change Order, click the blue *Sign and submit* button.

NOTE: Submitted forms cannot be removed. The process to hide the form and undo the Change Order Request is involved and should be avoided.

3. Cost Management-Construction Manager processes Change Order Request

NOTE: Every 5 minutes, an automated Recipe (a program that runs on the ACC Connect platform through Workato) scans for submitted forms. Once a *COR by GC* is submitted within that time window, an email is automatically sent to the Construction Manager notifying them of the Change Order Request.

Click the link in the email from Workato.

Change to *Default View* if not already set. Click *Budget Code* column to assign either a specific Account or the main Contingency budget. Budgets must already be setup.

Enter data for: *N/B* (Negotiated/Bid), *CO Just. Comments-CPM/CCM* (Change Order Justification Comments by City Project Manager and City Construction Manager), and *Sched. Change Explan.* (Schedule Change Explanation)

Change Orders											
Change Order Request Processing Change Order Change Order											
+ Add											
Export Default view											
Number	Name	Cost Status	Budget code	Committed	Processing...	Change Order	Type	N/B	CO Just. Comments-CPM/CCM	Sched. Change Explan.	
				111,892.78							
<input type="checkbox"/>	COR-027 COR-027-add outlet at data rack	Executed		167.66	PCO-005	CO-005	No Cont Ext	B	Justification comments for COR-027....		
<input type="checkbox"/>	COR-028 COR-028-Relocate existing pneumatic line	Executed		1,955.94	PCO-005	CO-005	No Cont Ext	N	Justification comments for COR-028....		
<input type="checkbox"/>	COR-029 COR-029-Change privacy rm countertops to 26" deep laminate	Executed		811.44	PCO-005	CO-005	No Cont Ext	N	Justification comments for COR-029....		
<input type="checkbox"/>	COR-030 COR-030-Relocate thermostats	Executed		338.55	PCO-005	CO-005	No Cont Ext	B	Justification comments for COR-030....		
<input type="checkbox"/>	COR-031 COR-031-All work to shift wall layout to expand office 501	Executed		21,025.61	PCO-006	CO-006	No Cont Ext	N	Stakeholders determined a change is required in room layout.		
<input checked="" type="checkbox"/>	COR-032 COR-032-Add power & data outlets in 3 conference rooms	Draft		926.52			Cont Ext Requ...	N	Unforseen stakeholder needs that were uncovered during constru...		

ADL_12348-45-151 - Paving

BID_11111-1414-11 - Chip Sealing East

BID_12345-67-890 - Base Construction Contract ✓

BID_12346-15-484-00012 - Solar

BID_12347-54-45 - Signage

BID_12348-15-154 - Landscaping

Create new budget

Group by budget code segment

Click the blue text for the *Name* of the Change Order Request to bring up the fly out.

COR-032-Add power & data outlets in 3 conference rooms
✕

Change Order Request

▼ Details

Number COR-032

Name

Description

Budget

Main Contract [Main Contract](#)

Contract With GC

Supplier

Cost Status Draft **Scope** Assigned

Schedule Change Days

Type

Location

▼ Documents

Stored in Autodesk Docs

Attachments
2 documents

zzCOR-032_Form389_Costs.pdf ⋮

zzCOR-032_Form389_Ref1_CBFloorBoxOutlets.pdf ⋮

NOTE: Many of the attributes visible in the flyout can also be turned on by clicking the gear icon and then inputted in the table view. However, there are some attributes that can only be edited or viewed via the flyout.

<“**Description**” has auto-populated text for tracking purposes. For example, this was COR-032, Submitted December 1st 2022 at 3:10:04 AM and Form ID #389

Open the attachments to confirm they are correct.

<PDF of form as submitted.

< File(s) attached to *COR by GC* by way of file reference

See next page

- > Related Change Orders
- > Cost Summary
- > Markups
- > Scope of Work
- > Approval
- > Dates
- ▼ Custom Attributes ⋮

N/B

CO Just. Comments-CPM/CCM

Actual vs Estimated Quantities differ

Missing Bid Item or Additional Bid Item needed

Field Decision (Expanded Scope)

Differing site conditions

Design did not adequately anticipate field conditions

Underground conflicts (utility revision)

Design Changes

Continued...

<Previously entered

<Previously entered

Select checkboxes to indicate justification for the Change Order

Click the 3 vertical dots next to name of the COR. *Assign > Prelim Change Order*. Type a name for the Prelim Change Order, be sure to click *Create option...* or else nothing will be created or assigned.

Change Orders

Change Order Request Processing Change Order Change Order

+ Add

Number	Name	Process	Change Order	Type	N/B	CO Just.
<input type="checkbox"/>	COR-030 - Relocate thermostats					
<input type="checkbox"/>	COR-031 - All work to shift wall layout to expand office 501					
<input type="checkbox"/>	COR-032 - Add power & data outlets in 3 conference rooms	⋮ 1	Assign 2	Processing Change Order 3		

Assign to Processing Change Order

Name *

4

5

Create and Assign 6

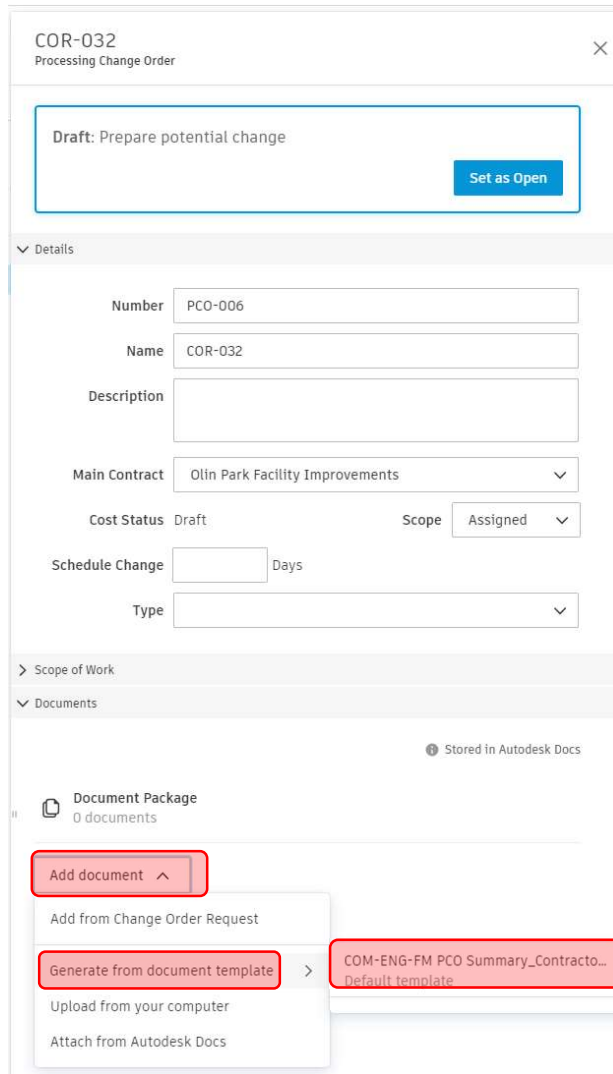
4. Cost Management - Construction Manager prepares Change Order for Contractor Signoff

Clicking the PCO number in the column Creating a PCO switches tabs to *PCO*. Click arrow next to *PCO* to see COR(s). Input *New End Date* if needed. This is the new contract end date as a result of this change order.

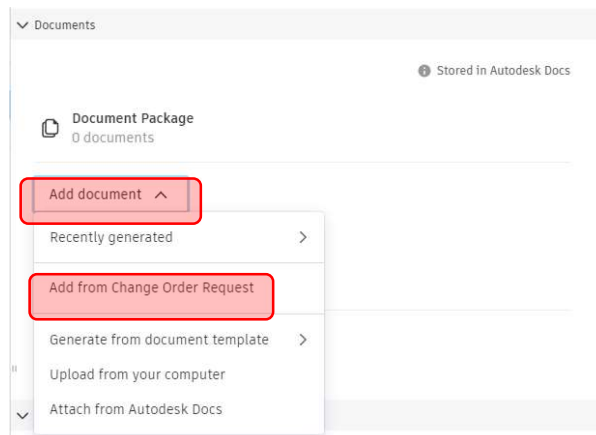
The screenshot shows the Autodesk Construction Cloud interface for 'TEST-Olin Park Facility Improvements - CO...'. The 'Change Orders' section is active, displaying a table of change orders. The table has columns for 'Number', 'Name', 'Cost Status', 'Committed', 'New End Date by PCO', and 'Budget Name'. One entry, 'PCO-006', is highlighted in blue. A red box highlights the 'PCO-006' number, and another red box highlights the 'Select date' button next to it. Below the table, a calendar widget is visible, showing the month of June 2023. The calendar has days of the week (Su, Mo, Tu, We, Th, Fr, Sa) and dates from 1 to 30. The date 29 is highlighted in blue.

Number	Name	Cost Status	Committed	New End Date by PCO	Budget Name
PCO-006	COR-032	Draft	926.52		
01	COR-032-Add power & data out...	Open	926.52		Base Construction Contract

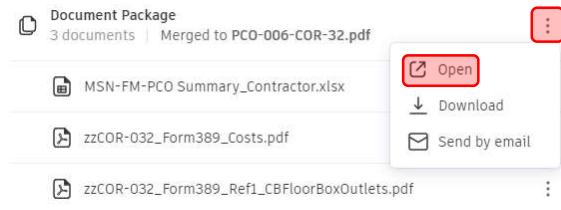
Click the name of the PCO to bring up the flyout. Under Documents, click *Add document* and then select *Generate from document template*. Select the only option.



Click Add document again. This time, select *Add from Change Order Request*

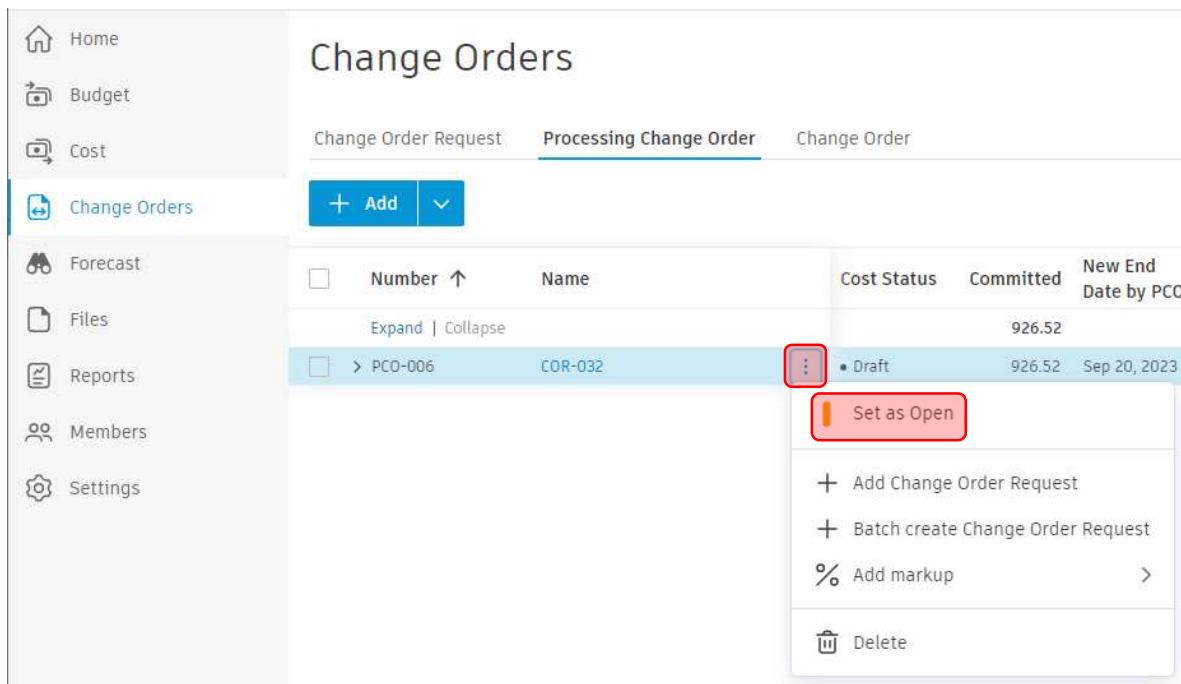


Open the document package to open the file that the contractor will review:



TIP: Documents can be reordered by clicking to left of file icon and dragging. Will need to reopen to merge into new document package and new file version.

Click the 3 vertical dots next to the PCO Name. Click *Set As Open*.



IMPORTANT: The action of setting a PCO to open and having an up-to-date merged document package will trigger an automation that performs several steps. An up-to-date merged document package means that the document package has been opened since the latest change to one of the documents composing it was changed.

The automation will create a *CO Signoff by GC* form, reference it to the PCO, reference the document package to the form, add a link to the PCO in the form notes, and finally send an email with further instructions once complete. If the email fails to send, the document package was not merged after its documents composing it were changed. In that case, you will have to Revise the PCO, remerge the files and then set to Open again.

Changes to data in the system aren't immediately populated—you must regenerate document template if anything is changed. Changes to data without remerging document would be visible on the Activity Log at bottom of flyout.

5. Build-Construction Manager reviews CO Signoff by GC Form and submits to Contractor

Check your email and follow one of the two sets of actions. This guide will proceed with 1st set of actions which assumes everything is correct. Follow link to Form.

Action Required: CO Signoff by GC Form ID #12 was successfully created on - 8182-Public Health Remodel v5.6 - 17047

Inbox x COM-ENG-CONST MGR x



Workato Notification <mailer@workato.com>
to cadbimmgr+com.eng.const_mgr

3:18 PM (0 minutes ago)

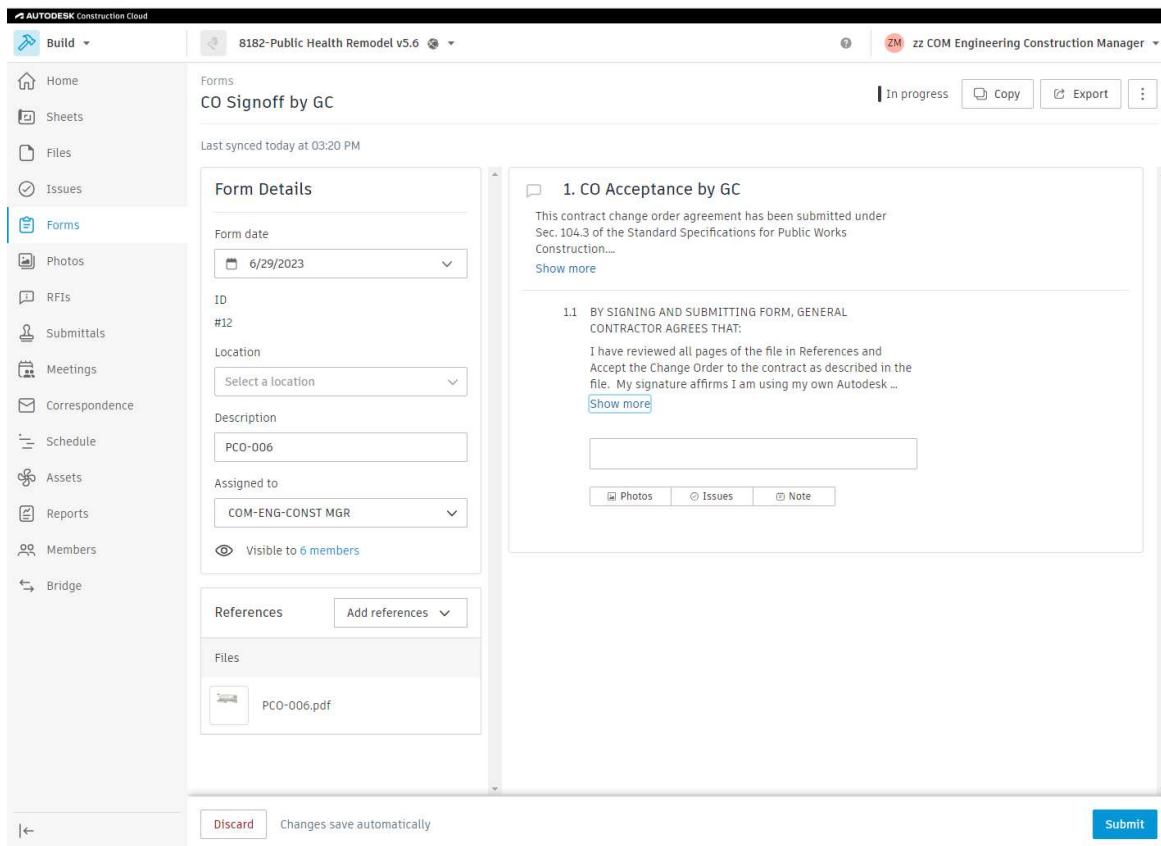
A CO Signoff by GC form was automatically generate and referenced to Processing Change Order PCO-006: COR-032.
. The PCO's document package was also referenced to Form #12

Please follow the link to the form and verify the attached PCO document package. Then take one of two sets of actions

1. If correct, follow link to [Form #12](#) and submit form for the GC to review.
2. If incorrect,
 - 2A. Discard [Form #12](#).
 - 2B. Reject [PCO-006](#)
 - 2C. Delete document package.
 - 2D. Make changes in cost management, generate doc package, and set to open as you would normally.

This email was generated by Workato on behalf of City of Madison Engineering

Review the file referenced to the form. Submit to the Contractor for their review.



6. Build-Contractor approves *CO Signoff by GC form*

Contractor will receive an *Action Required...* email with a link to a form *CO Signoff by GC*. Follow the link. View the file reference. Click *Show More* to read entirety of statements.

If you approve, add select *Sign and Submit*. If you have any questions or are not ready to sign, use the comments. The methodology to add comments by clicking the dialog bubble icon as shown is the same as it was for the *COR by GC form*.

If through comments it is determined that the document needs changes, select *Send back to editors*.

Only Sign and Submit the form if you approve the Change Order and your signature looks good. The form cannot be edited after you submit.

Forms
CO Signoff by GC In review Export

Last synced today at 03:23 PM

Form Details

Form date
Jun 29, 2023

ID
#12

Location
-

Description
PCO-006

Created by
zzz COM-ENG-ADSK Automation

Last updated
Jun 29, 2023

Visible to 7 members

Form is in review

1 reviewer needs to sign

[Send back to editors](#) [Sign and submit](#)

1. CO Acceptance by GC

This contract change order agreement has been submitted under Sec. 104.3 of the Standard Specifications for Public Works Construction...

[Show more](#)

1.1 BY SIGNING AND SUBMITTING FORM, GENERAL CONTRACTOR AGREES THAT:
I have reviewed all pages of the file in References and Accept the Change Order to the contract as described in the file. My signature affirms I am using my own Autodesk ...

[Show more](#)

References

Files

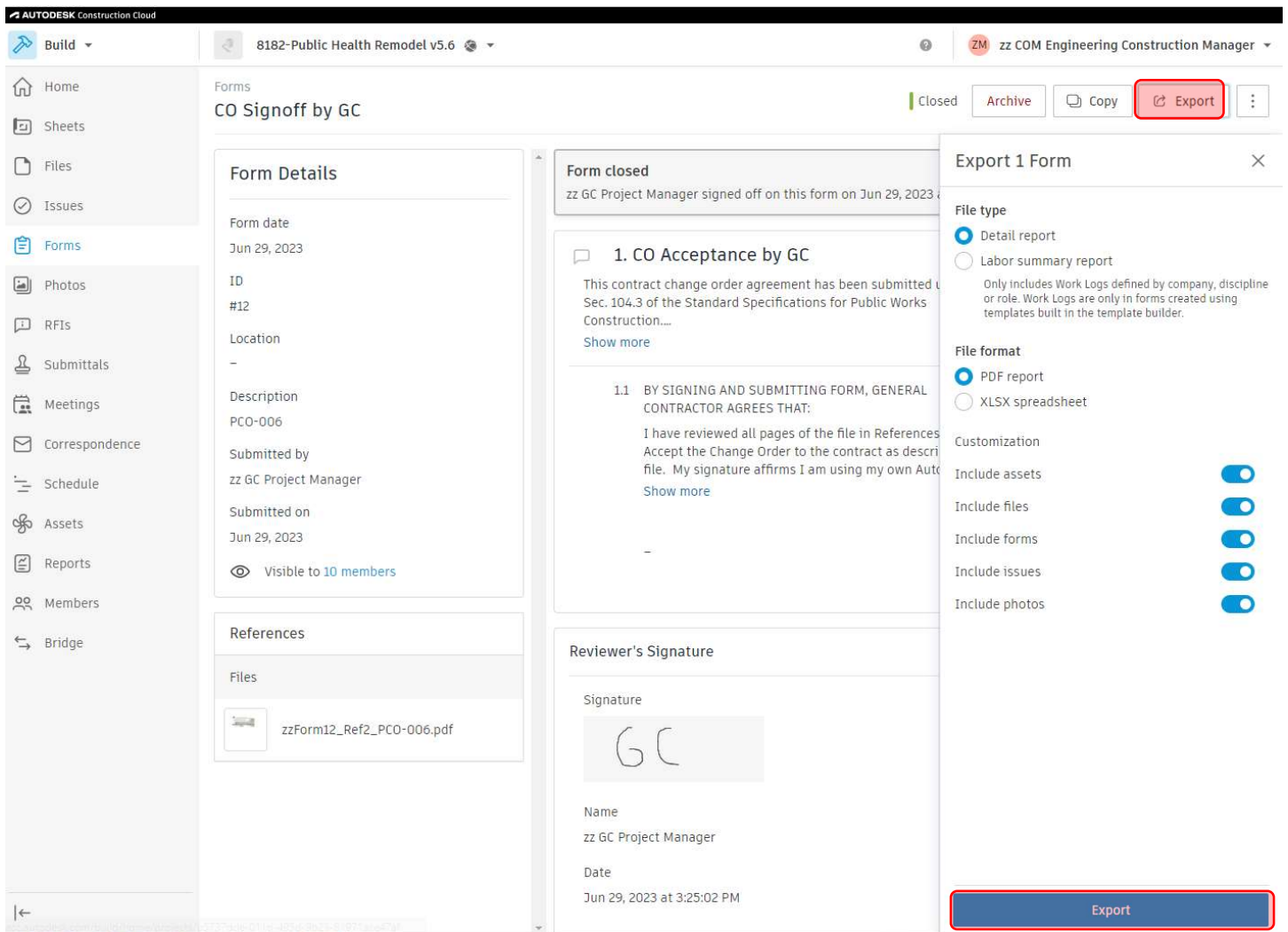
PCO-006.pdf

7. Cost Management-Construction Manager prepares Change Order for staff review

After the contractor has signed the *CO Signoff by GC form*, the Construction Manager will receive an Autodesk email immediately. It contains a link to the Form. You will also receive a Workato email within 5 minutes that contains a link to the corresponding PCO and Form. Follow the Form link in the Workato email

You will see that the form is closed and the GC has signed off.

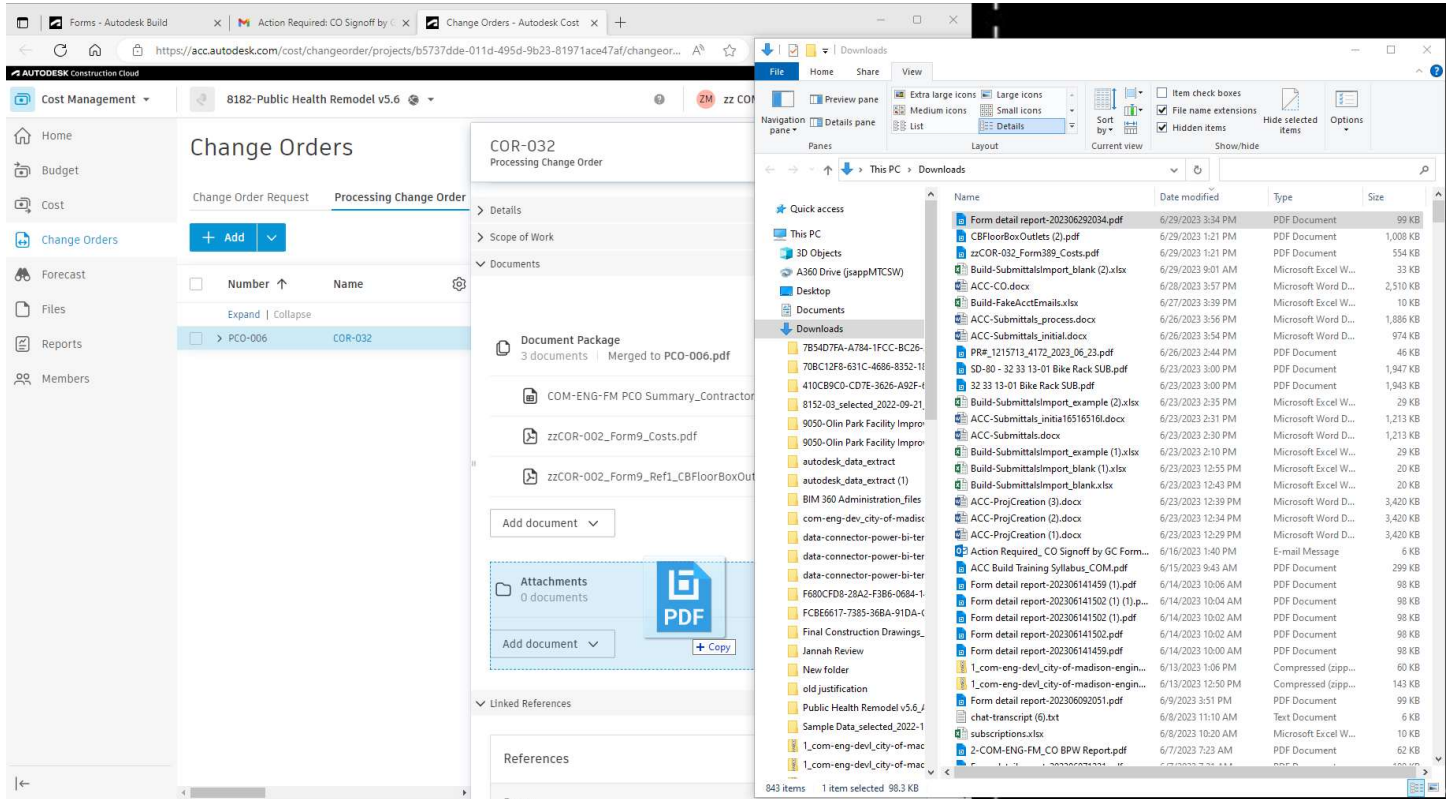
First, open link to the Form. Export to PDF as shown. Leave default settings with everything toggled on.



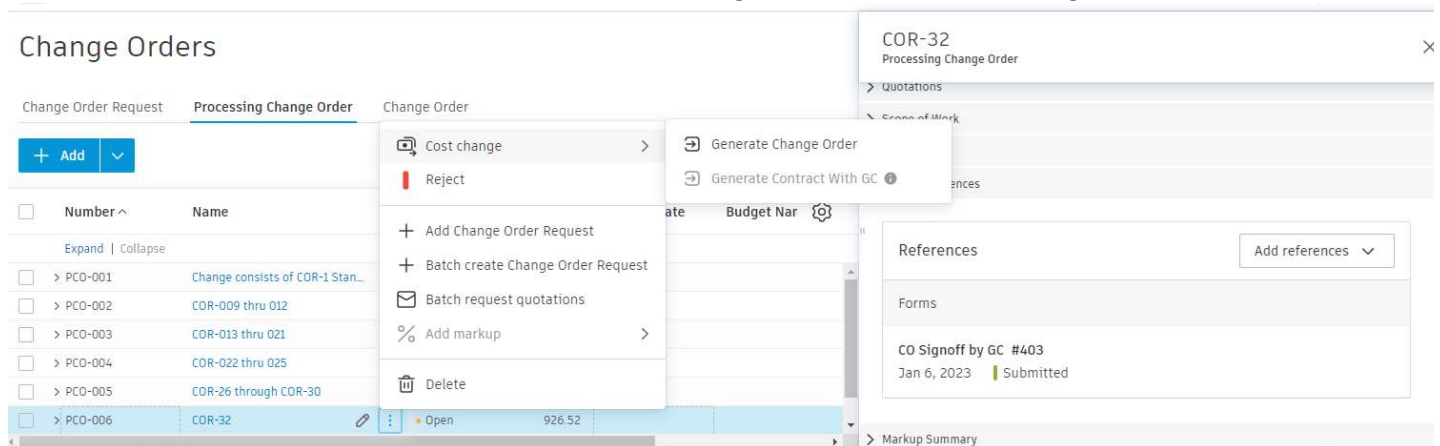
Click Download. Open folder containing downloaded PDF.

Autodesk Construction Cloud interface showing a 'CO Signoff by GC' form. The interface includes a sidebar with navigation options like Home, Sheets, Files, Issues, Forms, Photos, RFIs, Submittals, Meetings, Correspondence, Schedule, Assets, Reports, and Members. The main content area displays 'Form Details' (Form date: Jun 29, 2023; ID: #12; Location: -; Description: PCO-006; Submitted by: zz GC Project Manager; Submitted on: Jun 29, 2023; Visible to 10 members), 'References' (File: zzForm12_Ref2_PCO-006.pdf), and 'Form closed' (zz GC Project Manager signed off on...). A '1. CO Acceptance by GC' section contains a paragraph about contract change order agreement and a sub-section '1.1 BY SIGNING AND SUBMITTING FORM, GENERAL CONTRACTOR AGREES THAT:' followed by a paragraph of text and a 'Show more' link. A 'Reviewer's Signature' section shows a signature 'GC'. On the right, a 'Your export is complete' message provides a shareable link (https://developer.api.autodesk.com/repor) and a 'Send emails' button. A 'Downloads' window is open over the interface, listing several PDF files, with the top file 'Form detail report-202306292034.pdf' highlighted. A red box highlights the 'Download' button in the bottom right corner of the interface.

Going back to original email, open link to PCO. Sort by date modified so that it is the top result. Drag and drop the downloaded file to the attachments section of the PCO.



Important: wait for blue wheel next to filename to finish spinning before proceeding. It indicates successful upload of the attachment. Click the 3 vertical dots, select Cost change, and then Generate Change Order.



Failure to correctly attach the 1 exported file and only the 1 exported file will result in an error message. The error message is communicated by the name of the generated Change Order. Any erroneous Change Orders must be deleted and recreated, the next time following the instructions.

Upon Creation of the Change Order, ACC will switch to the Change Order Tab. Click *Set as Open*. A Workato Recipe will automatically analyze and then set all Open COs as BPW or non-BPW. **Never manually input data into the Type column.**

Before setting to Open						After setting to open and Workato setting the type																																																																	
<p>Change Orders</p> <p>Change Order Request Processing Change Order <u>Change Order</u></p> <table border="1"> <thead> <tr> <th>Number ^</th> <th>Name</th> <th>Status</th> <th>Committed</th> <th>Type</th> <th></th> </tr> </thead> <tbody> <tr> <td colspan="3">Expand Collapse</td> <td>89,778.17</td> <td></td> <td></td> </tr> <tr> <td><input type="checkbox"/> > CO-004</td> <td>COR-022 thru 025</td> <td>Executed</td> <td>25,001.29</td> <td>BPW</td> <td></td> </tr> <tr> <td><input type="checkbox"/> > CO-005</td> <td>COR-26 through COR-30</td> <td>Executed</td> <td>4,223.09</td> <td>Non-BPW</td> <td></td> </tr> <tr> <td><input checked="" type="checkbox"/> > CO-006</td> <td>COR-32</td> <td>Draft</td> <td>926.52</td> <td></td> <td></td> </tr> </tbody> </table>						Number ^	Name	Status	Committed	Type		Expand Collapse			89,778.17			<input type="checkbox"/> > CO-004	COR-022 thru 025	Executed	25,001.29	BPW		<input type="checkbox"/> > CO-005	COR-26 through COR-30	Executed	4,223.09	Non-BPW		<input checked="" type="checkbox"/> > CO-006	COR-32	Draft	926.52			<p>Change Orders</p> <p>Change Order Request Processing Change Order <u>Change Order</u></p> <table border="1"> <thead> <tr> <th>Number ^</th> <th>Name</th> <th>Status</th> <th>Committed</th> <th>Type</th> <th></th> </tr> </thead> <tbody> <tr> <td colspan="3">Expand Collapse</td> <td>89,778.17</td> <td></td> <td></td> </tr> <tr> <td><input type="checkbox"/> > CO-004</td> <td>COR-022 thru 025</td> <td>Executed</td> <td>25,001.29</td> <td>BPW</td> <td></td> </tr> <tr> <td><input type="checkbox"/> > CO-005</td> <td>COR-26 through COR-30</td> <td>Executed</td> <td>4,223.09</td> <td>Non-BPW</td> <td></td> </tr> <tr> <td><input checked="" type="checkbox"/> > CO-006</td> <td>COR-32</td> <td>Open</td> <td>926.52</td> <td>Non-BPW</td> <td></td> </tr> </tbody> </table>						Number ^	Name	Status	Committed	Type		Expand Collapse			89,778.17			<input type="checkbox"/> > CO-004	COR-022 thru 025	Executed	25,001.29	BPW		<input type="checkbox"/> > CO-005	COR-26 through COR-30	Executed	4,223.09	Non-BPW		<input checked="" type="checkbox"/> > CO-006	COR-32	Open	926.52	Non-BPW	
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Click blue text for name of CO to bring up flyout.

Scroll down in flyout to add data to Custom Attributes. Always select types. For BPW Change Orders like this one, select BPW Meeting date: <https://www.cityofmadison.com/employeenet/engineering/board-of-public-works-common-council-calendar> Provide a Schedule Change Explanation as needed. **Do not change *New End Date by CO*. It is automatically filled by an automation based off PCO value.**

Open COR-032
Change Order

References Add references

Forms

CO Signoff by GC #12
Jun 29, 2023 Closed

> Markup Summary

> Approval

> Tax

> Dates

Custom Attributes

BPW Meeting Jul 11, 2023

Schedule Change Explanation: Supply chain delays

TY_Street

TY_Sewer-Sanitary

TY_Sewer-Storm

TY_Water

TY_TE-Electrical

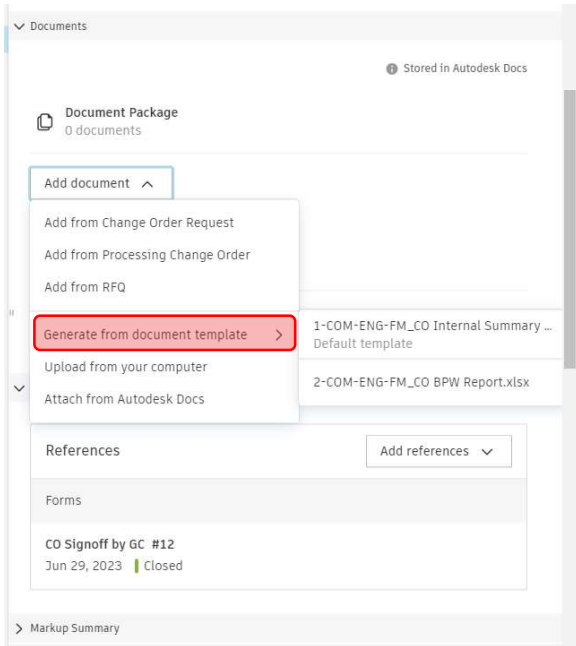
TY_Parks

TY_Facilities

New End Date by CO Sep 30, 2023

Notes

After entering in Custom Attributes Data, scroll back up to Documents Package. Create Document package as shown below. Very similar to the process for the PCO. Note that the document package will not reflect any data modifications after its creation. Always create 1-COM-ENG-FM_CO Internal Summary.xlsx template. For BPW type COs, also create 2-COM-ENG-FM_CO BPW Report.



TIP: If you need to change custom attributes or COR justification data or anything else, need to also update the Document Package. Click the triple vertical dot icon next to the Justification file and select Regenerate. You will also need to reopen the Document Package for the changes to be reflected on the document reviewed by staff. A new version will also be created.

8. Cost Management-City Staff review Change Order

Click blue *Send* button in the upper right of the flyout. A pop up to *Send email to reviewers* will appear. Hit *Send* to start the review process.

The screenshot displays a software interface for managing Change Orders. On the left, a 'Send email to reviewers' pop-up window is open, containing the following fields:

- Subject ***: Change Order - CO-004 - COR-006 requires your review and response.
- Remind reviewers ***: A dropdown menu showing 'zConstMgr zConstMgr_Last' and 'zProjMgr ProjMgr_Last'.
- Email message ***: Please review the associated scope and information and respond accordingly.
- Due date**: Aug 8, 2022

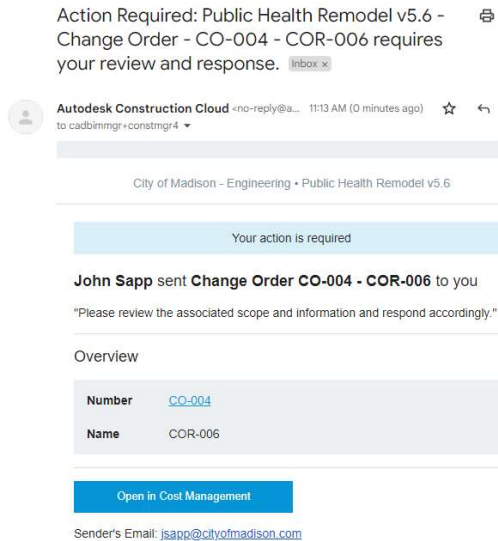
At the bottom of the pop-up are 'Skip' and 'Send' buttons. On the right, the 'Details' panel for Change Order COR-006 is visible, showing:

- Number**: CO-004
- Name**: COR-006
- Description**: Main Contract
- Main Contract**: Main Contract
- Budget**: ADDLCOs12345-11-112 - Signage
- Status**: In Review
- Type**: (dropdown menu)
- Schedule Change**: 0 Days

At the top of the details panel, a progress bar indicates the current step: 'Await internal review: Project Manager Approval'. Reviewers listed are 'zConstMgr zConstMgr_Last, zProjMgr ProjMgr_Last' and the due date is 'Aug 8, 2022'. Buttons for 'Remind' and 'Review for another reviewer' are also present.

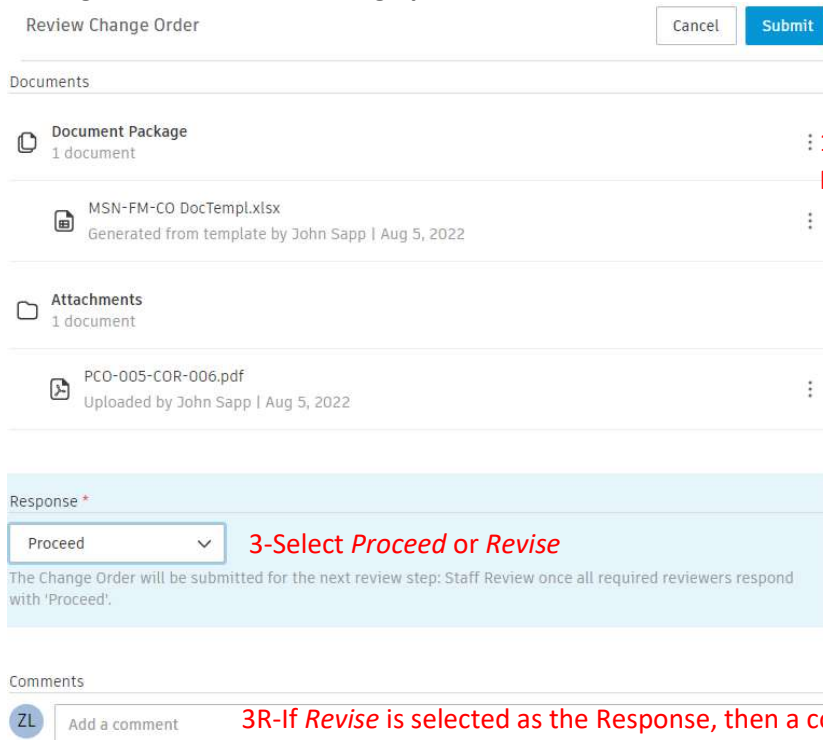
Now the Change order will work through the Change Order Approval Workflow. It is a series of 3 (Non-BPW COs) or 5 (BPW COs) steps, some of which have multiple reviewers able to complete the review on a first come first serve basis. The Change Order will be listed as *Await Internal review: **Step name*** where **Step name** is the custom name given on the Change order approval workflow. The next reviewer in line is also listed.

The process is nearly identical for each step, so just one Approval step is shown in this guide.



<Sample of Email. Review staff would follow link via blue *Open in Cost Management* button

Clicking review in ACC will bring up this window



4- Submit after selecting *Response*

1- Select *Open* to view Document Package PDF in the system

2- Select *Open* to view Attachments PDF in the system

3-Select *Proceed or Revise*

3R-If *Revise* is selected as the Response, then a comment must be provided prior to *Submit*. **Note that this will reset entire review process. It is best to first use @functionality in the flyout similar to forms to resolve any issues**

After completion of staff review, an email is generated and sent to contractor with a link to the document package and the change order in ACC.

The final step is for Accountant to set the Change Order as Executed. It will be recorded as such throughout the system. NOTE: only users with Project Admin status can undo a CO once Executed and the process is involved.