

InterScope Release 6.5
Electronic Change Order Processing
February 19, 2010

Abstract

This manual describes the process of electronic Change Order processing in InterScope Release 6.5

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Overview

InterScope Release 6.5 contains new features for the processing of electronic project documents.

These features include the ability to enter, edit, submit, accept and store *Cost Estimates (OC-25)*, *Designer and Contractor evaluations*, *Change Orders (OC-24)* and all supporting documentation electronically.

This manual deals only with the processing of electronic Change Orders. Comparable documents are available (or are soon to be available) for Cost Estimates and Evaluations.

Audience

This manual is intended for use by Designers, Contractors, Owner agencies and State Construction Office Project Monitors.

Since the Designer is the originator of change order requests, the bulk of this manual deals with the entry and edit of detail Change Order information from the Designer's viewpoint.

The roles of the Contractor, Owner and Monitor involve receiving and responding to email alerts, reviewing and approving change orders. These are described in later sections of the manual.

Workflow Automation

The business of processing electronic forms within InterScope is handled through the use of workflow automation.

This involves a sequence of steps which are executed by the various project participants.

In InterScope project roles are defined as: Designer, Contractor, Owner Agency and State Construction Office Monitor.

Workflow steps include such activities as creation, submission and approval of documents. As each step is completed, the workflow advances to the next step alerting the project participant responsible for the next step.

An audit trail is also kept identifying the user and completion time of each step. If at anytime, a step involves a rejection, the workflow is designed to return to a prior "restart" step for continued processing.

Email Alerts

A key element of workflow automation is the ability to communicate with workflow participants during workflow execution. InterScope uses email alert notifications defined for each workflow step.

Alert notifications can be based on workflow participation (or Role), User group, or specific UserId. They are sent to the email address registered to the user account of each project participant.

Change Order Workflow

The Workflow for the Change Order processing appears in the following diagram. The remainder of this document covers the details of the workflow processing and interactions with InterScope release 6.5.

State Construction Office - Interscope Change Order Processing					
WORKFLOW STEP	DESIGNER	CONTRACTOR	OWNER	MONITOR	INTERSCOPE
1 Designer creates Change Order	(1) Creates Change Order PCOs with Supporting documentation				
2 Designer submits CO for review	(2a) - Submits Change Order	(2c) Receives Alert	(2c) Receives Alert	(2c) Receives Alert	(2b) Sends Email Alert to: Contractor Owner Monitor
3 Contractor Reviews and Approves	(3c) Receives Alert	(3a) Approves CO			(3b) Sends Email Alert to: Designer
4 Designer Reviews and Approves	(4a) Approves CO		(4c) Receives Alert		(4b) Sends Email Alert to: Owner
5 Owner Reviews and Approves			(5a) Approves CO	(5c) Receives Alert	(3b) Sends Email Alert to: Monitor
6 Monitor Reviews and Approves	(6c) Receives Alert	(6c) Receives Alert	(6c) Receives Alert	(6a) Approves CO	(6b) Sends Email Alert to: Contractor Owner Designer

Figure 1

Getting Started

Each project participant must establish an active user account in InterScope.

This can be accomplished by accessing the following URL and completing the Request Logon sequence (Figure 8 on page 9)

<http://interscope2.doa.state.nc.us:8080/interscope/logon.action?>

New Account Instructions for Designers

Follow these steps for creating a new Designer user account:

- 1 – Select **Designer** in the **User Type** field. This will display the entry form in Figure 2.
- 2 – Complete the form for the fields indicated.

Note: It is important that the email address entered for the Firm be one that represents the firm directly and is not necessarily defined for a particular individual since all communication from InterScope for this account will be sent to the email address on file.

3 – Click **Submit**. A request will be sent to the InterScope Administrator who will review your request, verify the information against the data in InterScope, activate your account and send an email notifying you that the account has been activated.

Note: A user account cannot be established for any firm that does not have prior or current approved and active construction projects setup in InterScope.

The screenshot shows a web form titled "InterSCOPE :: State Construction Office - Project Environment" with a sub-header "New User Logon". The form is divided into two main sections. The top section is for firm information and includes radio buttons for "State Employee", "Designer" (which is selected), and "Contractor". Fields include "Design Firm", "Address", "City & State", "Zip", "Phone" (with an example: (800) 555-1212), and "License #". Below this is another set of radio buttons for "User Type" with options "NCBA", "NCBELS", "NCBOLA", and "Other". The bottom section is for user information and includes fields for "Username", "Full Name", "Email", "Phone" (with an example: (919) 807-4100), "Password", and "Confirm Password". At the bottom of the form are "Submit", "Cancel", and "Help" buttons, followed by the text "First Time Users Please see Help". A red warning message states "Enter Firm and User information. All fields are required." with a "Contact Administrator" link. The footer contains the text "Release: 6.5.1-20100228 Copyright © 2009, 2010" and "State of North Carolina :: State Construction Office".

Figure 2

New Account Instructions for Contractors

Note: Any Contractor requesting to use InterScope must first be registered with Vendor Link, the Interactive Purchasing System. InterScope uses Vendor Link to obtain verifiable name and address information.

To register with Vendor Link, access the following URL and complete the Vendor Registration process:

<https://www.ips.state.nc.us/IPS/vendor/vndpubmain.asp>

Once you have received notification that your Vendor Link registration has been completed, you may request a logon for InterScope.

Follow these steps for creating a new Contractor user account:

- 1 – Select **Contractor** in the **User Type** field. This will display the entry form (see Figure 3).
- 2 – Click on the **Search VendorLink** button. This will display the search page in (see Figure 4).
- 3 – Enter the first 3 letters of your company name and press **Search**. This will display search results (see Figure 5).
- 4 – Find your company listing in the search results and press **Select**. This will fill in your company information and return you to the account request form (see Figure 6).
- 6 – Complete the remaining fields on the form and press **Submit**.

Note: It is important that the email address entered for the Firm be one that represents the firm directly and is not necessarily defined for a particular individual since all communication from InterScope for this account will be sent to the email address on file.

7 - A request will be sent to the InterScope Administrator who will review your request, verify the information against the data in InterScope, activate your account and send an email notifying you that the account has been activated.

Note: A user account cannot be established for any contractor that does not have prior or current approved and active construction projects setup in InterScope.

The screenshot shows a web form titled "InterSCOPE :: State Construction Office - Project Environment" with a sub-header "New User Logon". The form includes the following elements:

- User Type:** Radio buttons for "State Employee", "Designer", and "Contractor" (which is selected).
- HUB Vendor:** A text input field followed by a "Search VendorLink" button.
- Contact:** A section containing several input fields:
 - Username: []
 - Full Name: []
 - Email: []
 - Phone: [] Example: (919) 807-4100
 - Password: []
 - Confirm Password: []
- Buttons:** "Submit", "Cancel", and "Help" buttons.
- Text:** "First Time Users Please see Help" in red.
- Instructions:** "Press 'Search VendorLink' to select your Contractor information. Only HUB Certified Vendors can request a logon. To register and become certified, go to [Vendor Link](#) [Contact Administrator](#)" in red.
- Footer:** "Release: 6.5.1-20100226 Copyright © 2009, 2010 State of North Carolina :: State Construction Office" in blue.

Figure 3

InterSCOPE :: State Construction Office - Project Environment

HUB VendorLink Search

Enter the first 3 letters of your company name, then press[Search] to locate your Vendor Link record.

Contractor Name:

All fields are required.

Figure 4

InterSCOPE :: State Construction Office - Project Environment

HUB VendorLink Search

Enter the first 3 letters of your company name, then press[Search] to locate your Vendor Link record.

Contractor Name:

[First/Prev] 1, 2, 3 [Next/Last]

	Company	Contact
<input type="button" value="Select"/>	Gene Jordan Appraisal Services P.O. Box 14108 Raleigh, NC 27620	Name: Jordan, Gene Phone: (919)231-3212 x Fax: (919)231-4077 TollFree: Email: genejrd@bellsouth.net
<input type="button" value="Select"/>	General ASP : ApplTrack 8001 Lincoln Avenue : Suite 704 Skokie, IL 60077	Name: Westman, Keith Phone: (847)475-2283 x 108 Fax: TollFree: Email: keith@generalasp.com
<input type="button" value="Select"/>	General Biomedical Service, Inc. 1900 25th Street Kenner, LA 70062	Name: Ortega, Ana Phone: (504)468-8597 x Fax: (800)558-9449 TollFree: Email: info@generalbiomedical.com

Figure 5

InterSCOPE :: State Construction Office - Project Environment

New User Logon

User Type: State Employee Designer Contractor

Username:

Full Name:

Email:

Phone: Example: (919) 807-4100

Password:

Confirm Password:

First Time Users Please see Help

[Contact Administrator](#)

Release: 6.5.1-20100228 Copyright © 2009, 2010
[State of North Carolina :: State Construction Office](#)

Figure 6

New Account Instructions for Owner Agencies

Follow these steps for creating a new Agency user account:

- 1 – Select **State Employee** in the **User Type** field. This will display the entry form in Figure 7.
- 2 – Select your Department and Agency from the drop down lists and complete the remaining fields as indicated.
- 3 – Click **Submit**. A request will be sent to the InterScope Administrator who will review your request, verify the information against the data in InterScope, activate your account and send an email notifying you that the account has been activated.

The screenshot shows a web form titled "InterSCOPE :: State Construction Office - Project Environment" with a sub-header "New User Logon". The form contains the following fields and controls:

- User Type:** Radio buttons for "State Employee" (selected), "Designer", and "Contractor".
- Department / Agency:** Two dropdown menus. The first is set to "Administration" and the second to "St. Construction".
- Username:** Text input field containing "newuser".
- Full Name:** Text input field containing "SCO General Account".
- Email:** Text input field containing "sco@doa.nc.gov".
- Phone:** Text input field containing "(919) 807-4100". An example "(919) 807-4100" is shown to the right.
- Password:** Text input field with masked characters "••••••••".
- Confirm Password:** Text input field with masked characters "••••••••".
- Buttons:** "Submit" (highlighted with a dashed border), "Cancel", and "Help".
- Text:** "First Time Users Please see Help" in red.
- Footer:** "Contact Administrator" (blue link), "Release: 6.5.1-20100226 Copyright © 2009, 2010", and "State of North Carolina :: State Construction Office" (blue link).

Figure 7

Accessing InterScope

Once your account has been established, you may access InterScope to work on Change Orders.

Access the following URL to logon to InterScope Release 6.5 –

<http://interscope2.doa.state.nc.us:8080/interscope/logon.action?>

The following screen will appear.

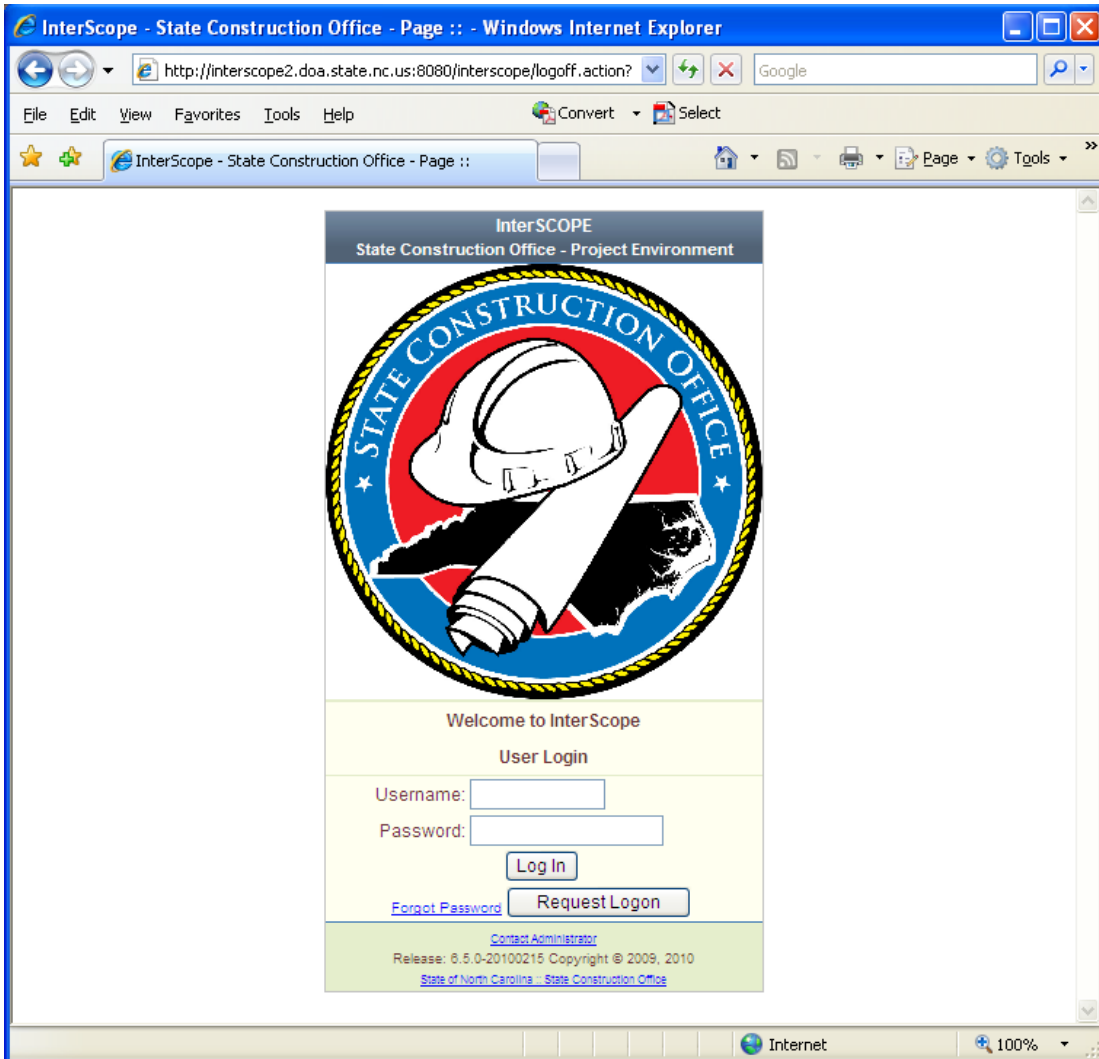


Figure 8

Enter the username and password that has been established for your account.

The following screen will appear depending on the Role that has been established for your user account.

InterScope Roles are: **Designer**, **Contractor**, **Owner** (Agency) and **Monitor** (State Construction).

The Menu options shown on the page header are dependant on the type of logon, so different options will appear for each role.

InterScope always displays the **Home Page** immediately after logon. To view your Alerts, click on **Alerts!** on the Menu Bar.

Each Alert is intended as a shortcut to actions that required your attention. These may be, but are not limited to: Change Orders that need your approval, Notice of final Change Order Acceptance by State Construction, Notice of Change Order submission. Alerts are also provided for Evaluations and Cost Estimates.

The following is a typical screen display after a **Designer** logon.

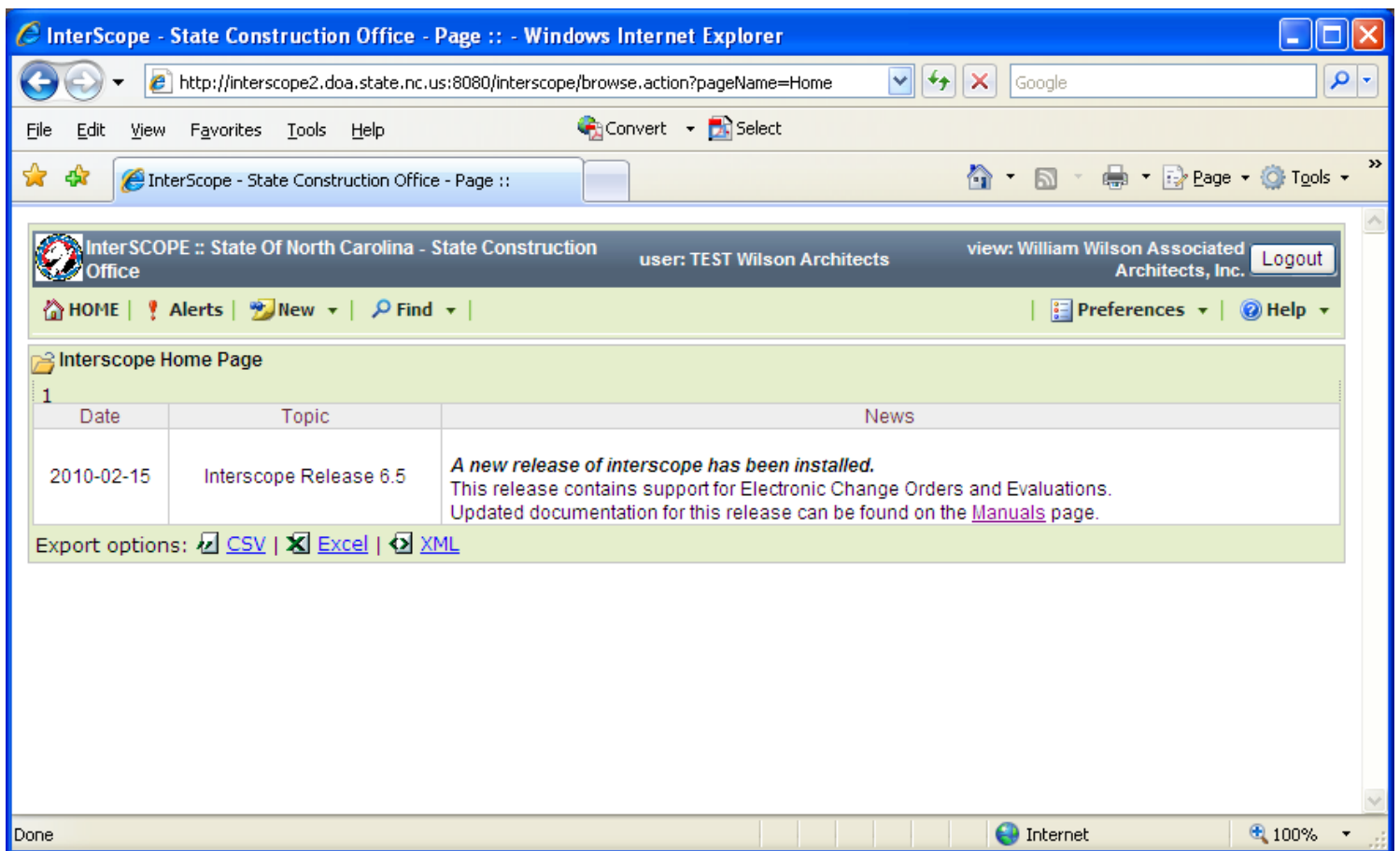


Figure 9

Entering Change Orders

Only Designers (or any InterScope user given the appropriate permission) are allowed to create and submit change orders for review, processing and approval.

Note: *Each Change Order proposal (PCO) requires supporting documentation to be uploaded for review and acceptance. A PCO cannot be added without supporting documentation. It is recommended that all supporting documentation be gathered prior to change order entry.*

To enter a Change Order for a given Construction Contract, perform the following navigational steps:

Step 1 – Finding the Construction Contract

Use the **Find > My Construction Contracts** option on the Menu bar:

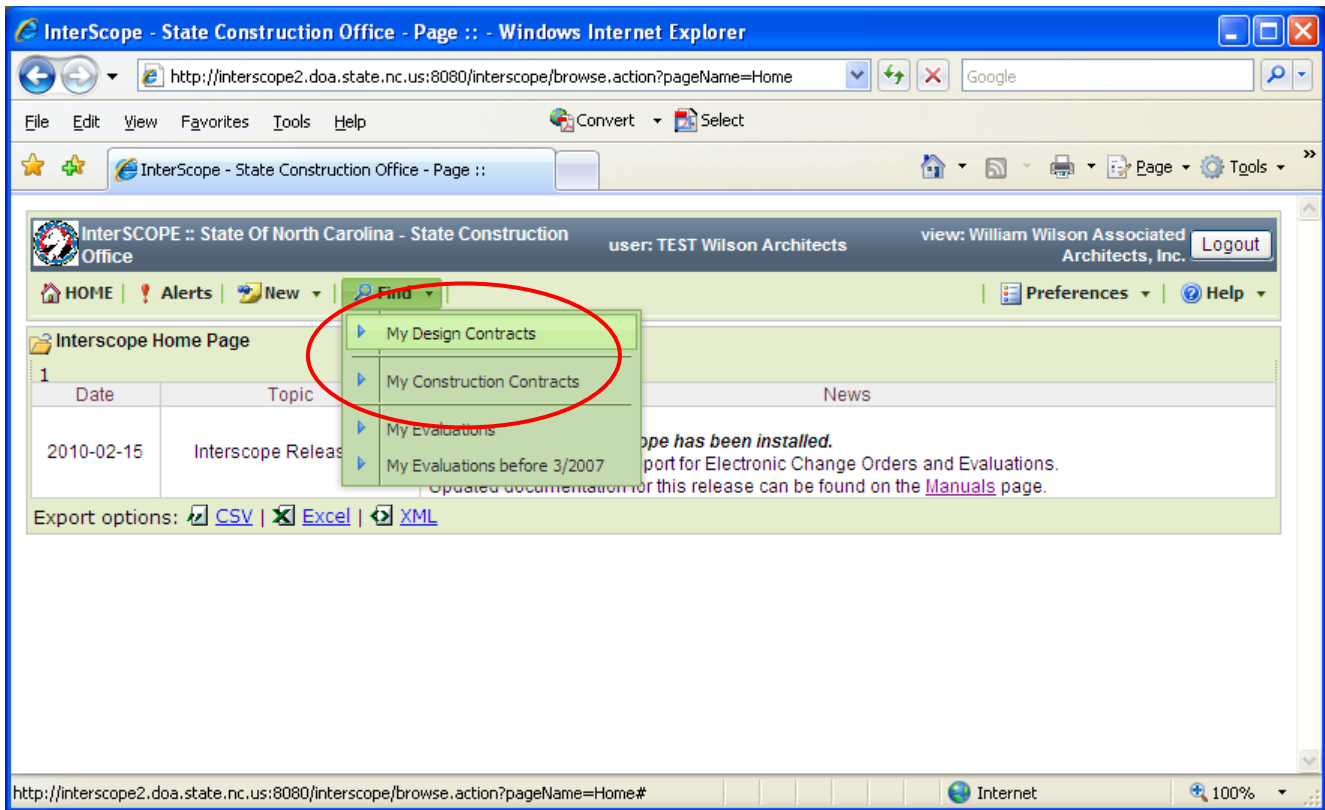


Figure 10

Step 2 – Selecting the Construction Contract

Use the Search List or narrow the Search List by entering more selective information in the Query fields and pressing the ! **Search** button.

Tip: Use the **SCO File#** to identify the correct Construction Contract.

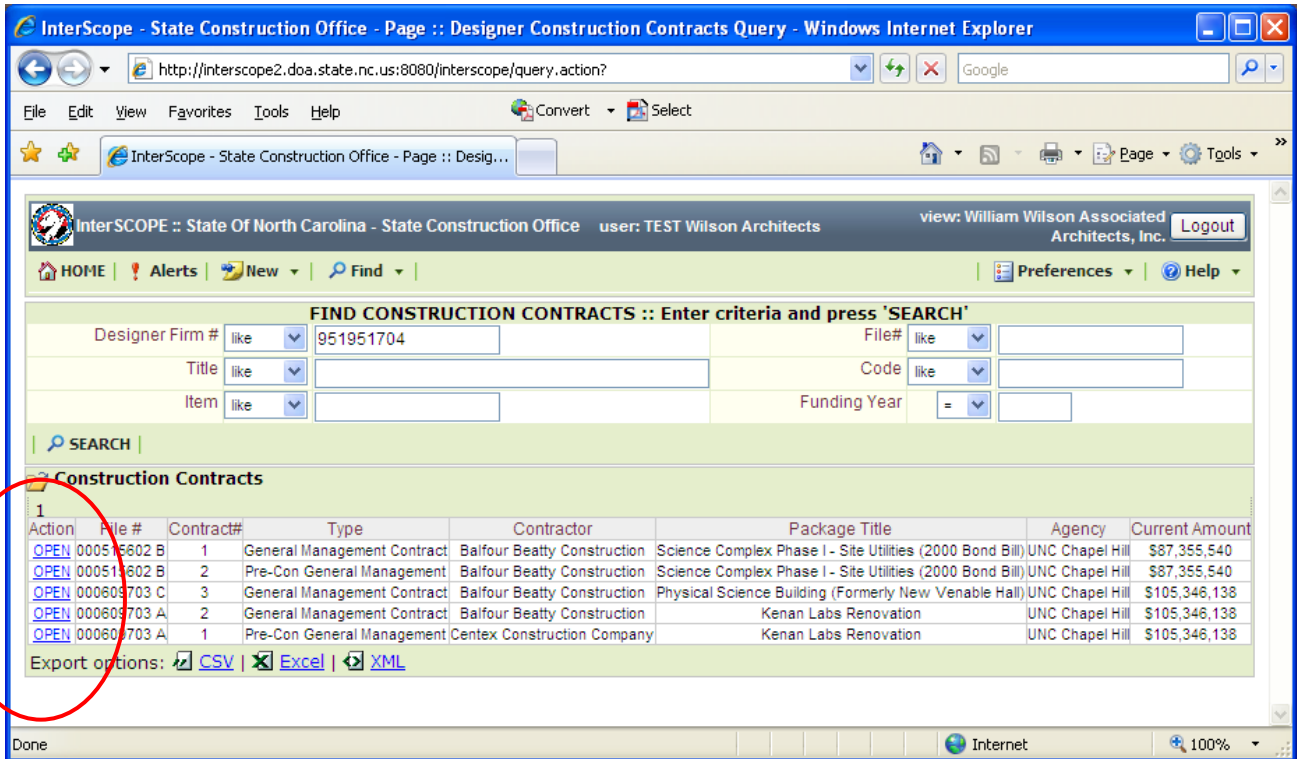


Figure 11

Step 3 – Opening the Construction Contract

Clicking the [OPEN](#) link to view the Construction Contract

Press the **Help** button to display a window explaining the information on the screen.

Press the **Back** button to return to the *Construction Contracts Query* screen.

Tip: From this screen you may view additional information by clicking on any [link](#) (example: [Contractor](#), [Sequence #](#). Return to this page by pressing the **Back** button on the linked page.)

To view an existing *Change Order*, click on the [OPEN](#) link.

To create a new *Change Order*, press the **Add** button.

The screenshot displays the Interscope web application interface. At the top, the browser address bar shows the URL: http://interscope2.doa.state.nc.us:8080/interscope/browse.action?keys='constr_contract.uid=7692'%20%20&pageName=ConstructionContractDetail&source=jsp. The application header includes the user name 'TEST Wilson Architects' and the view name 'William Wilson Associated Architects, Inc.'. A navigation bar contains buttons for 'HOME', 'Alerts', 'New', 'Find', 'Preferences', and 'Help'. The main content area is titled 'CONSTRUCTION CONTRACT' and contains several summary sections: 'Project Summary' (Project Title: Science Complex - Phase II, Department: Educational Institutions (Universities), Sequence #: 6097, Agency: UNC Chapel Hill), 'Design Contract Summary' (Design Contract #: 3, Designer: William Wilson Associated Architects, Inc., File #: 000609703), 'Package Summary' (Extension: C, Status: CMR-Beneficial Occupancy, Title: Physical Science Building (Formerly New Venable Hall), Type: Classroom Bldg.), and 'Construction Contract Detail' (Construction Contract #: 3, Contract Date: 2007-08-31, Contractor: Balfour Beatty Construction, Type: General Management Contract). Below these sections is a 'Change Orders' section with an 'Add' button. A table lists 13 change orders, all with an 'OPEN' action and 'Approved' status, managed by 'Balfour Beatty Construction'. The table columns are: Action, CO #, Days, Amount, Received, Last Status, Status, and Contractor.

Action	CO #	Days	Amount	Received	Last Status	Status	Contractor
OPEN	1	0	(\$492,666)	2008-01-04	2008-01-24	Approved	Balfour Beatty Construction
OPEN	2	0	(\$3,890,162)	2008-04-15	2008-04-16	Approved	Balfour Beatty Construction
OPEN	3	0	\$97,502	2008-08-01	2008-08-04	Approved	Balfour Beatty Construction
OPEN	4	0	\$707,985	2008-08-01	2008-08-11	Approved	Balfour Beatty Construction
OPEN	5	0	\$15,336	2008-11-12	2008-11-17	Approved	Balfour Beatty Construction
OPEN	6	0	\$488,695	2008-11-18	2008-11-21	Approved	Balfour Beatty Construction
OPEN	7	0	\$227,851	2009-02-10	2009-02-23	Approved	Balfour Beatty Construction
OPEN	8	0	\$216,153	2009-03-13	2009-03-16	Approved	Balfour Beatty Construction
OPEN	9	0	\$17,885	2009-03-26	2009-04-09	Approved	Balfour Beatty Construction
OPEN	10	0	\$84,850	2009-05-05	2009-05-11	Approved	Balfour Beatty Construction
OPEN	11	0	\$55,367	2009-05-05	2009-05-11	Approved	Balfour Beatty Construction
OPEN	12	0	(\$5,210)	2009-05-21	2009-06-01	Approved	Balfour Beatty Construction
OPEN	13	0	\$105,196	2009-05-21	2009-06-01	Approved	Balfour Beatty Construction

Figure 12

Step 4 – Entering the Change Order information

The following screen is displayed after pressing the **Add** button.

The **Project**, **Change Order** and **Cost and Schedule Summary** sections display information about the Change Order. No data entry is allowed in these sections.

The red highlighted fields in the **Cost and Schedule Summary** section will change as change order proposals are added or removed.

In the **WORKFLOW ACTIVITY** section, the first **Workflow Step** is highlighted and a **Comments** field is provided for entering workflow notes.

To begin entering Change Order information, go to the **BREAKDOWNS(PCO)** section of the page.

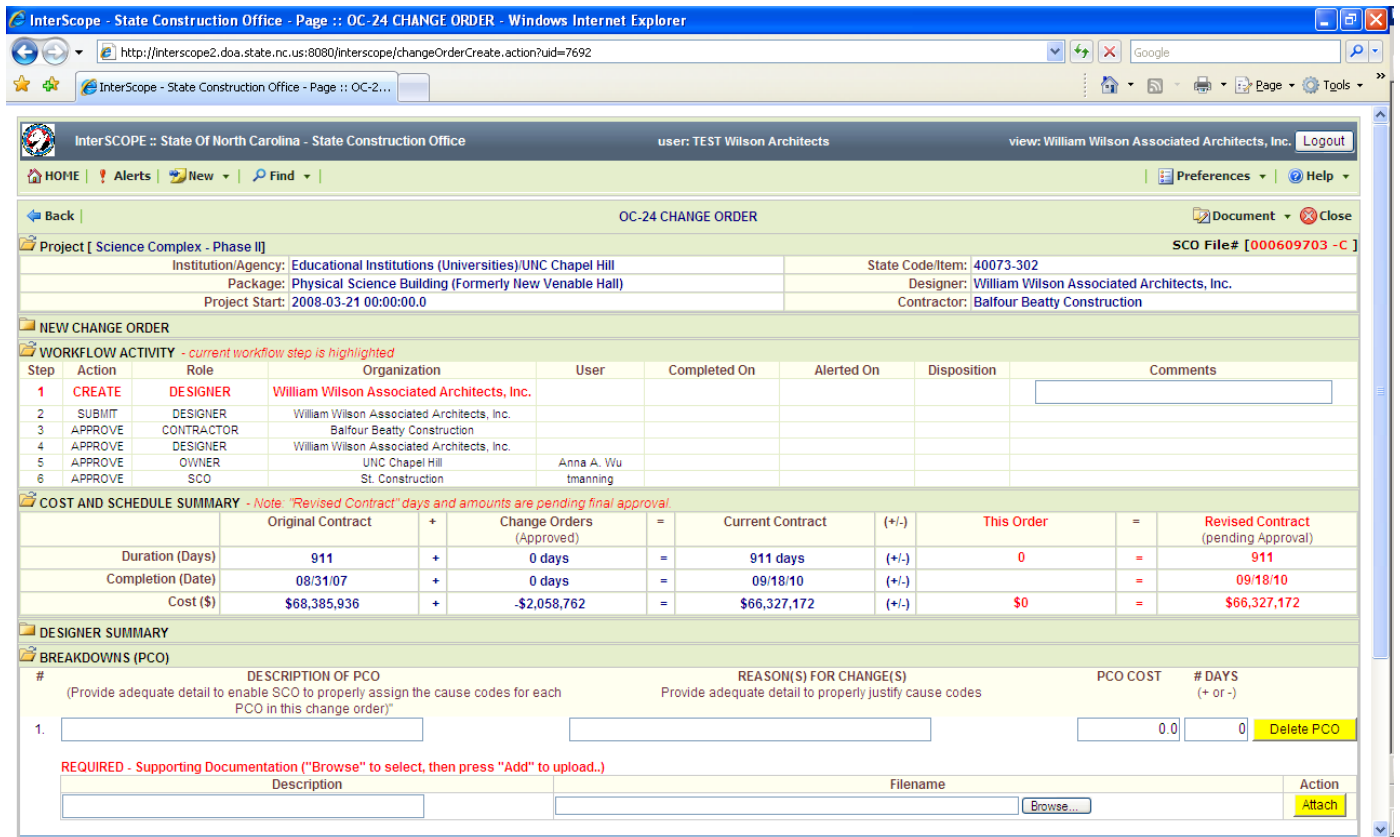


Figure 13

Step 5 – Entering Change Order Proposals (PCOs).

For each change order proposal, the following fields must be entered: **Description Of PCO**, **Reason(s) for Change**, **PCO Cost**, **#Days**. In addition, supporting document must be attached for each PCO.

As this information is provided, the figures in the **COST AND SCHEDULE SUMMARY** section will be updated under the **This Order** and **Revised Contract** columns. These columns reflect the summary of all items for the Change Order. These amounts will be applied to the Construction Contract once final approval is made by the Project Monitor (SCO).

To attach supporting documentation, enter a **Description** and select the upload file by pressing the **Browse** button. A window will be displayed for selecting a local file on your computer to upload. Selecting the file with return to the input page.

To complete the upload, press the **yellow Attach** button. Once the file is successfully uploaded, it will appear in the list. Attach as many files are necessary to complete the supporting documentation for the PCO. Each file provided will be accessible online by reviewers.

TIP: *It is strongly recommended to Save the Change Order (See Step 6) after each PCO has been completed. This will store the updated Change Order in InterScope for later retrieval and edits and prevent loss of data due to internet connection problems.*

To add more PCOs, click the yellow **Add PCO** button.

Repeat the preceding steps for each PCO.

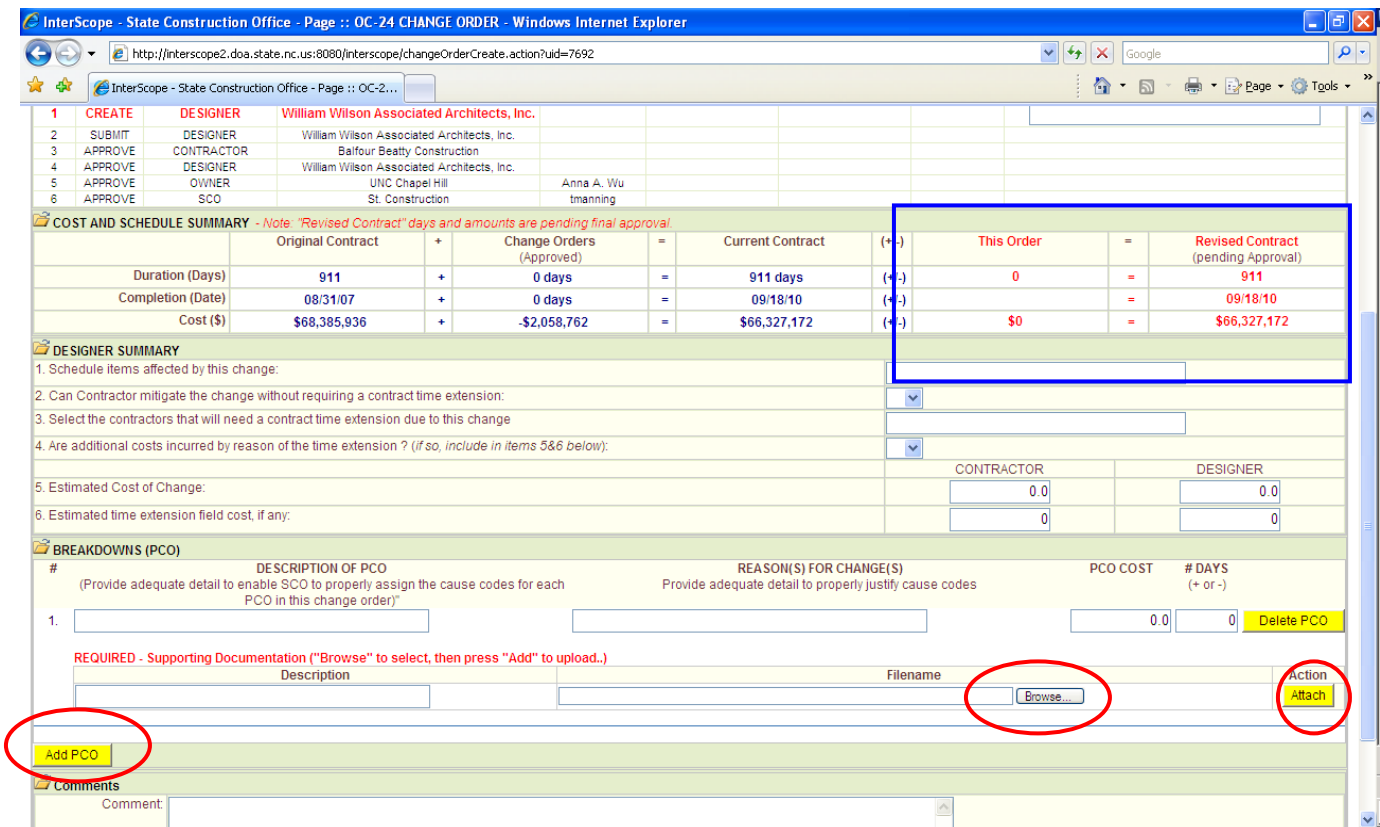


Figure 14

Step 6 – Saving the new Change Order

To save the new Change Order information, select **Save** from the **Document** menu.

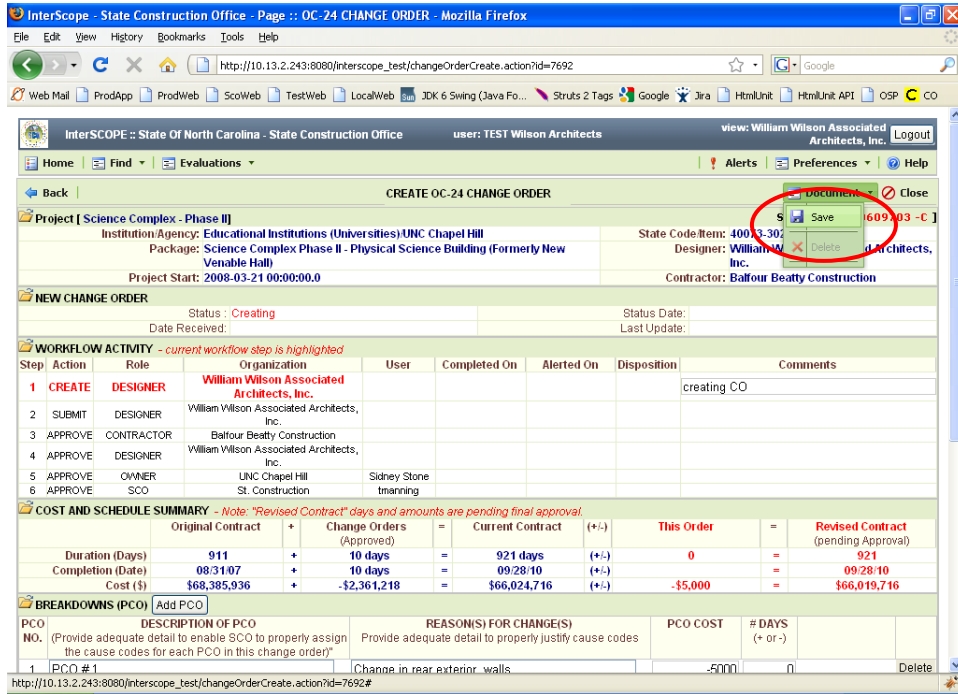


Figure 15a

InterSCOPE will display **Submitting Update. Please wait..** as it creates the Change Order.

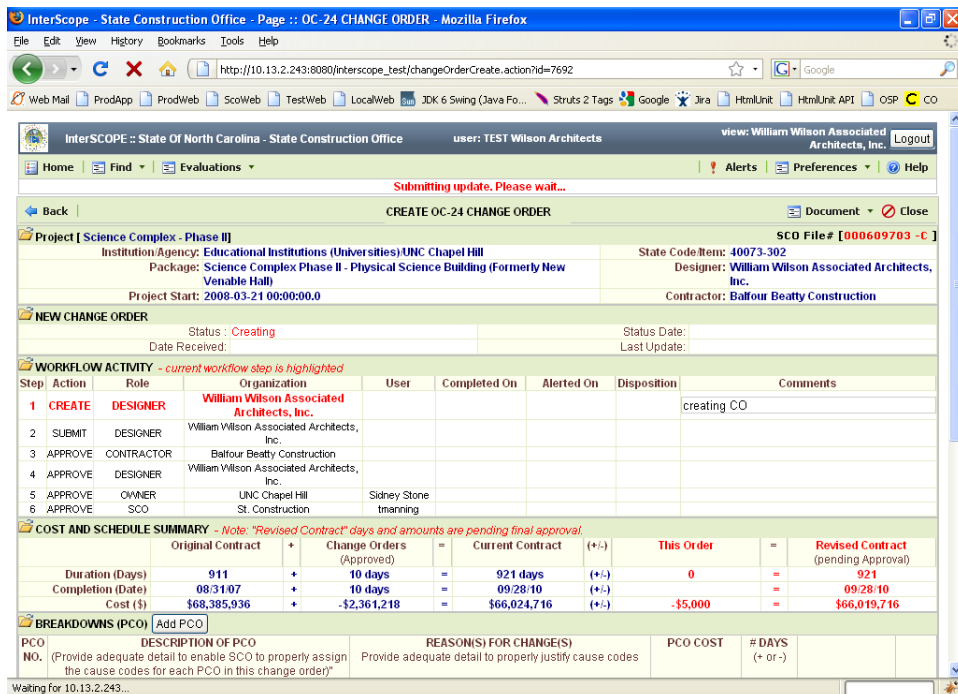


Figure 15b

Step 7 – Editing the new Change Order

Once the Change Order is created, the following page is displayed. Notice that the Workflow has advanced to the next step (2) and information for the preceding step has been created.

A **Workflow** menu now appears on the page next to the **Document** menu.

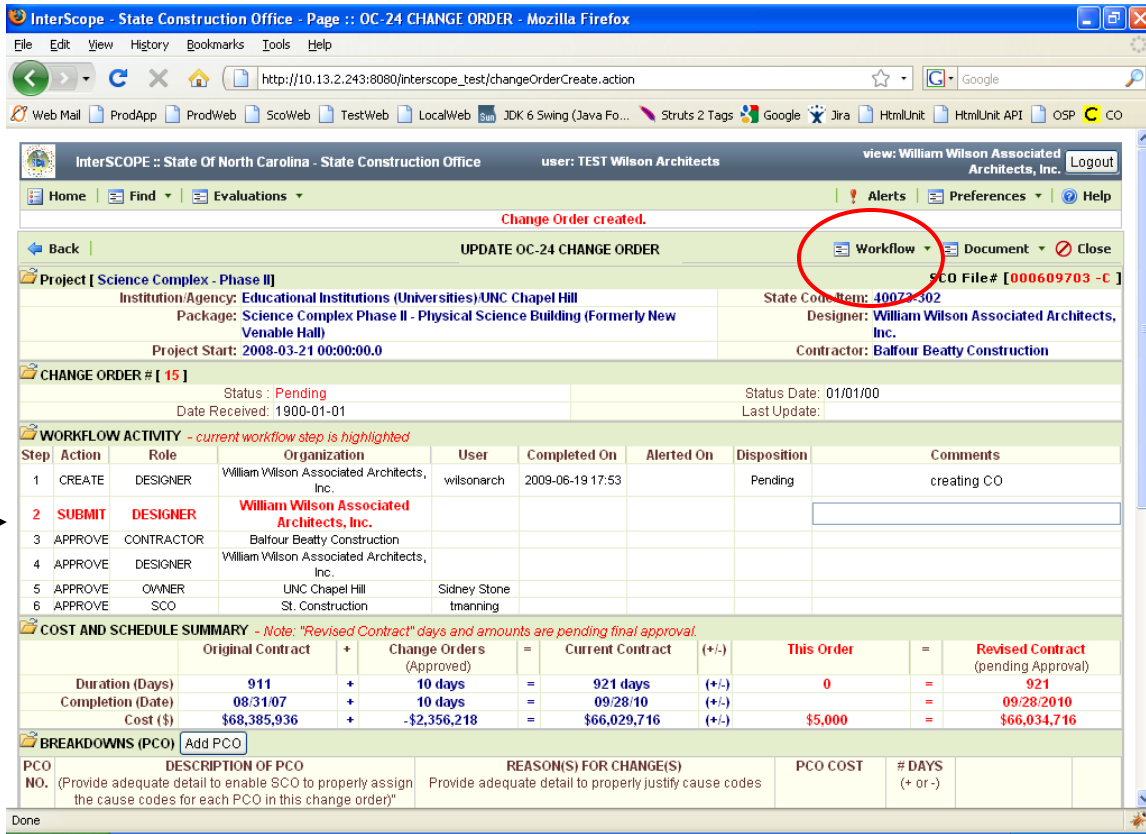


Figure 16

The Designer may continue to make changes to the Change Order using the **Save** option on the **Document** menu up until the time that the Change Order is submitted.

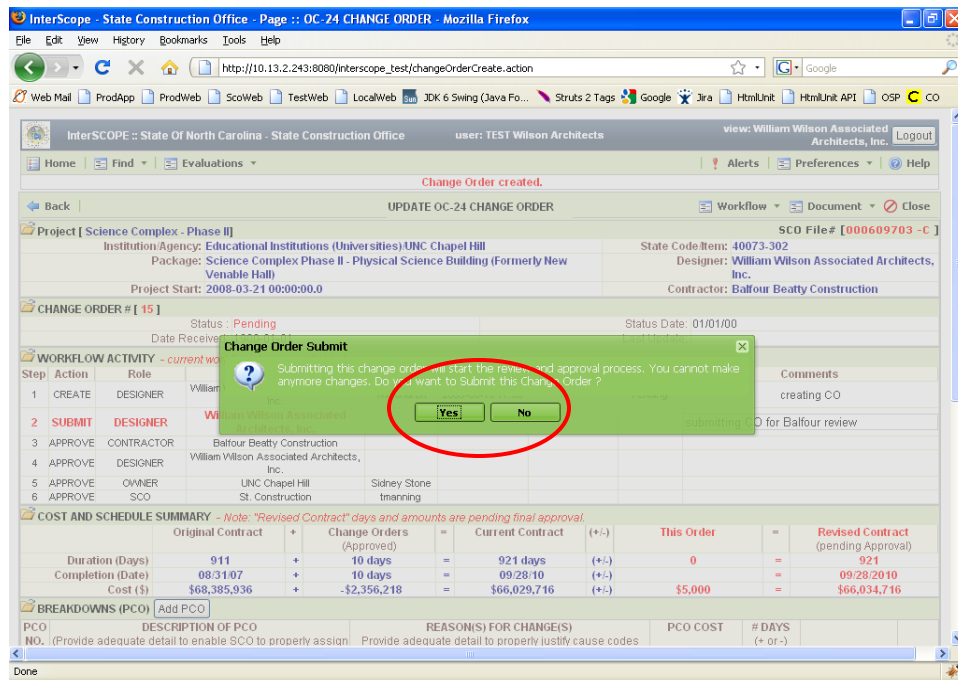
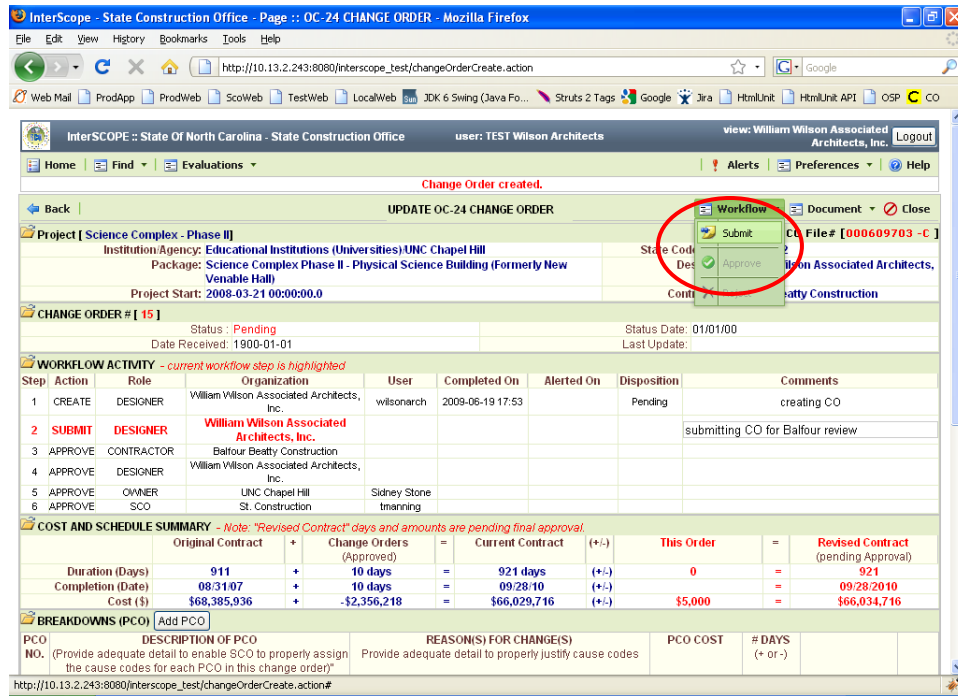
The Designer may choose to abandon or delete the Change Order using the **Delete** option from the **Document** menu. However, once it is submitted, no changes or deletions are allowed

Step 8 – Submitting the Changer Order for review

To complete this workflow step, the Designer must submit the Change Order to initiate it’s review and approval by other Project participants. Up to this point, no other Project participant has been involved in the Change Order processing.

Submit the Change Order by selecting the **Submit** option from the **Workflow** menu. A Confirmation window will appear to confirm this action. Select **Yes** to continue or **No** to return.

Figure 17



InterScope updates the Change Order workflow and processes any Alerts that are defined for this step.

The system is configured to send Alerts to the Owner, Contractor and Project Monitor. An Alert is sent for each logon associated with each project role.

InterScope then displays the Change Order screen and alert information. The Submit step has been updated with workflow information and the Workflow advances to the next step – Contractor Approval.

4 Alert(s) created. Change Order is Submitted. No changes can be made.

UPDATE OC-24 CHANGE ORDER

Project [Science Complex - Phase II]
 Institution/Agency: Educational Institutions (Universities)UNC Chapel Hill
 Package: Science Complex Phase II - Physical Science Building (Formerly New Venable Hall)
 Project Start: 2008-03-21 00:00:00.0
 State Code/Item: 40073-302
 Designer: William Wilson Associated Architects, Inc.
 Contractor: Balfour Beatty Construction

CHANGE ORDER # [15]
 Status: Submitted
 Status Date: 06/19 17:55/09
 Date Received: 1900-01-01
 Last Update: 2009-06-19 17:55

WORKFLOW ACTIVITY - current workflow step is highlighted

Step	Action	Role	Organization	User	Completed On	Alerted On	Disposition	Comments
1	CREATE	DESIGNER	William Wilson Associated Architects, Inc.	wilsonarch	2009-06-19 17:53		Pending	creating CO
2	SUBMIT	DESIGNER	William Wilson Associated Architects, Inc.	wilsonarch	2009-06-19 17:55		Submitted	submitting CO for Balfour review
3	APPROVE	CONTRACTOR	Balfour Beatty Construction					
4	APPROVE	DESIGNER	William Wilson Associated Architects, Inc.					
5	APPROVE	OWNER	UNC Chapel Hill	Sidney Stone				
6	APPROVE	SCO	St. Construction	tnanning				

COST AND SCHEDULE SUMMARY - Note: "Revised Contract" days and amounts are pending final approval.

	Original Contract	+	Change Orders (Approved)	=	Current Contract (+/-)		This Order	=	Revised Contract (pending Approval)
Duration (Days)	911	+	10 days	=	921 days (+/-)		0	=	921
Completion (Date)	08/31/07	+	10 days	=	09/28/10 (+/-)			=	09/28/2010
Cost (\$)	\$68,385,936	+	-\$2,356,218	=	\$66,029,716 (+/-)		\$5,000	=	\$66,034,716

BREAKDOWNS (PCO) Add PCO

PCO NO.	DESCRIPTION OF PCO	REASON(S) FOR CHANGE(S)	PCO COST	# DAYS (+ or -)
Done	(Provide adequate detail to enable SCO to properly assign the cause codes for each PCO in this change order)	Provide adequate detail to properly justify cause codes		

Figure 18

Reviewing and Approving Change Orders

The following steps are completed for each Project participant in reviewing and approving a submitted Change Order.

Change Order Sequencing

Change orders must be entered, submitted and approved in sequence. There are safeguards in place to check for any outstanding prior change orders before a newer change order can be approved.

Change orders may also be deleted at any time before submission. The system will review the current sequence of change orders and re-sequence them as appropriate to maintain a consistent ordering.

Step 1 – Receiving and responding to the Alert

Each participant will receive an alert via email concerning actions for each Change Order.

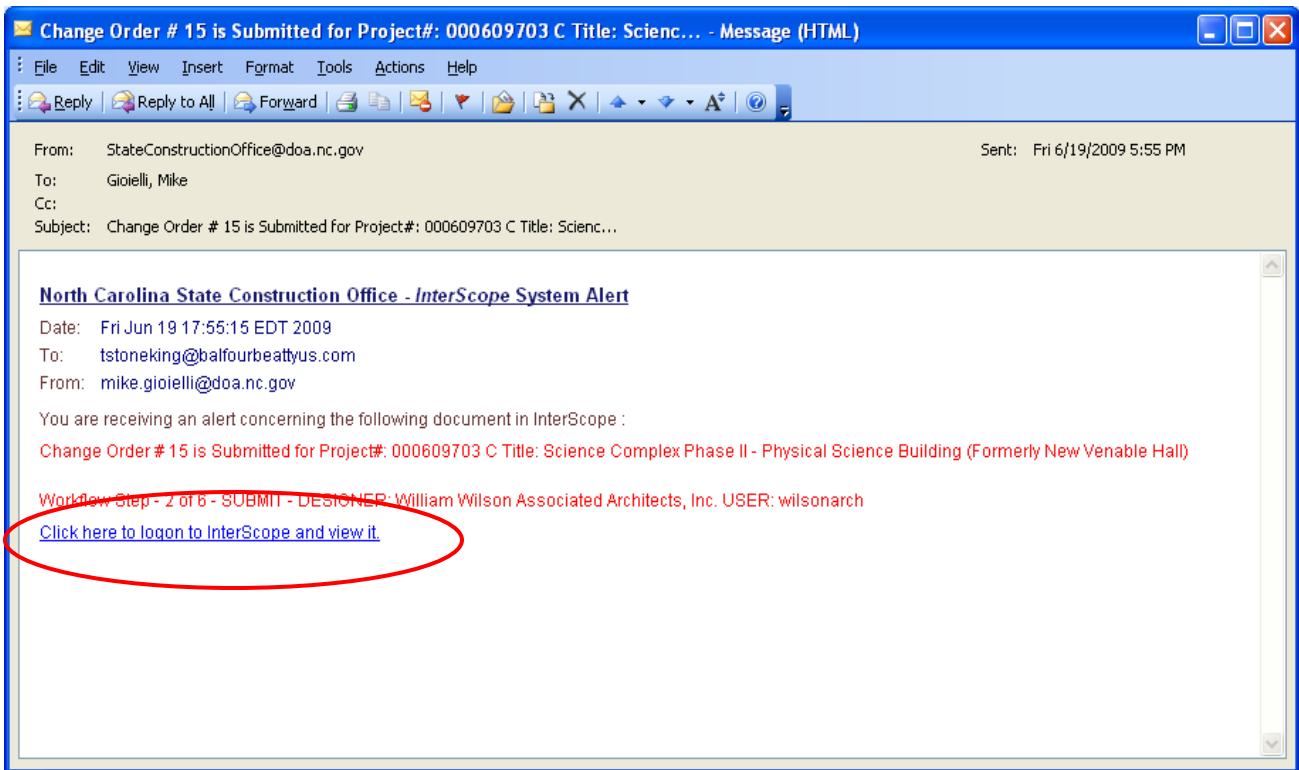


Figure 19

To access the Change Order, simply click on the link at the bottom of the Alert Email.

You will be prompted to Logon and are directed immediately to the Change Order page.

Step 2 – Approving or Rejecting the Change Order

At this workflow step there are only 2 options that can be performed – **Approve** or **Reject**. They are available from the **Workflow** menu.

Approving the Change Order moves the process along to the next step in the Workflow.

Rejecting the Change Order at any step in the Workflow causes the Change Order to be returned to Step 2 where the originator (Designer) can change and resubmit. The workflow is then reset and the audit trail (found at the bottom of the page) maintains a record of the prior workflow events.

This process continues until the final Workflow Step is completed and the Change Order is marked as Approved (See Status field).

Alerts are sent to all Project participants as a notification that the Change Order has been officially approved.

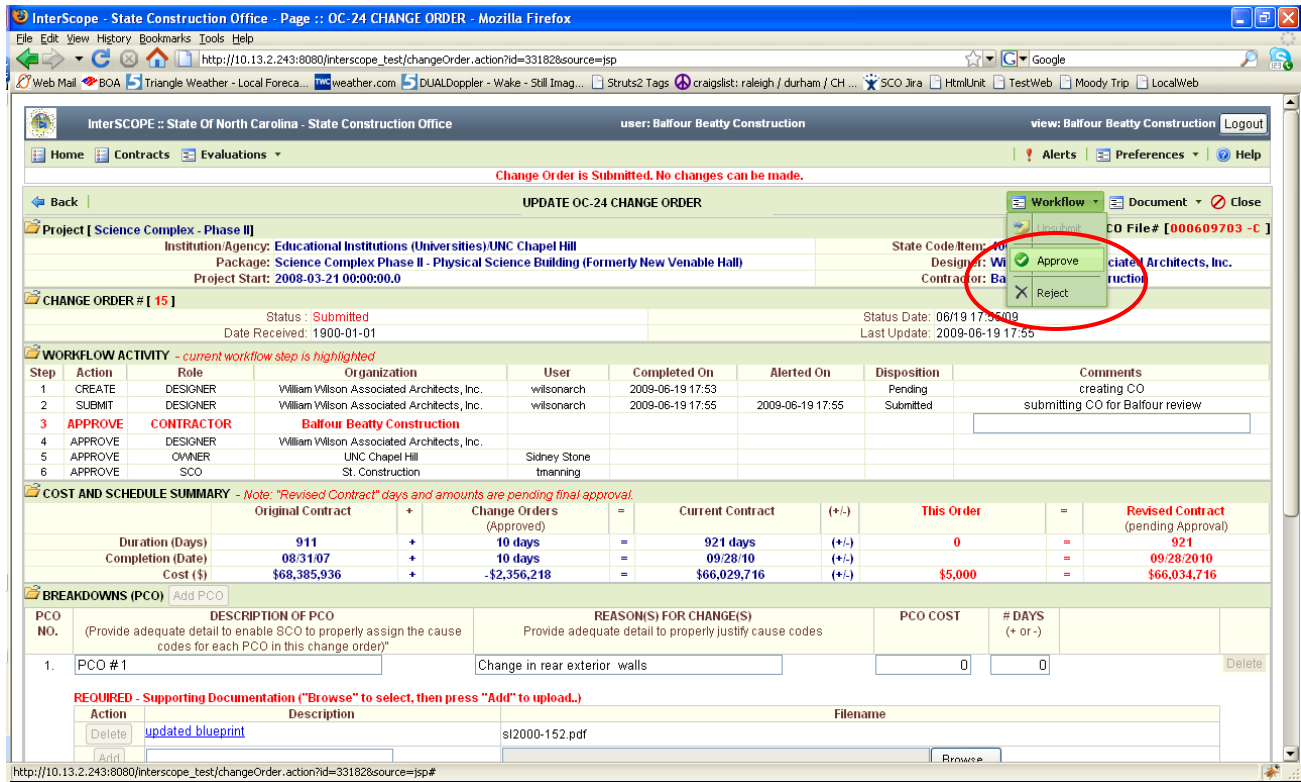


Figure 20