Andhra Pradesh State Skill Development Corporation

Extended Three-Dimensional Analysis of Building System

ETABS

Failure Section Modifications

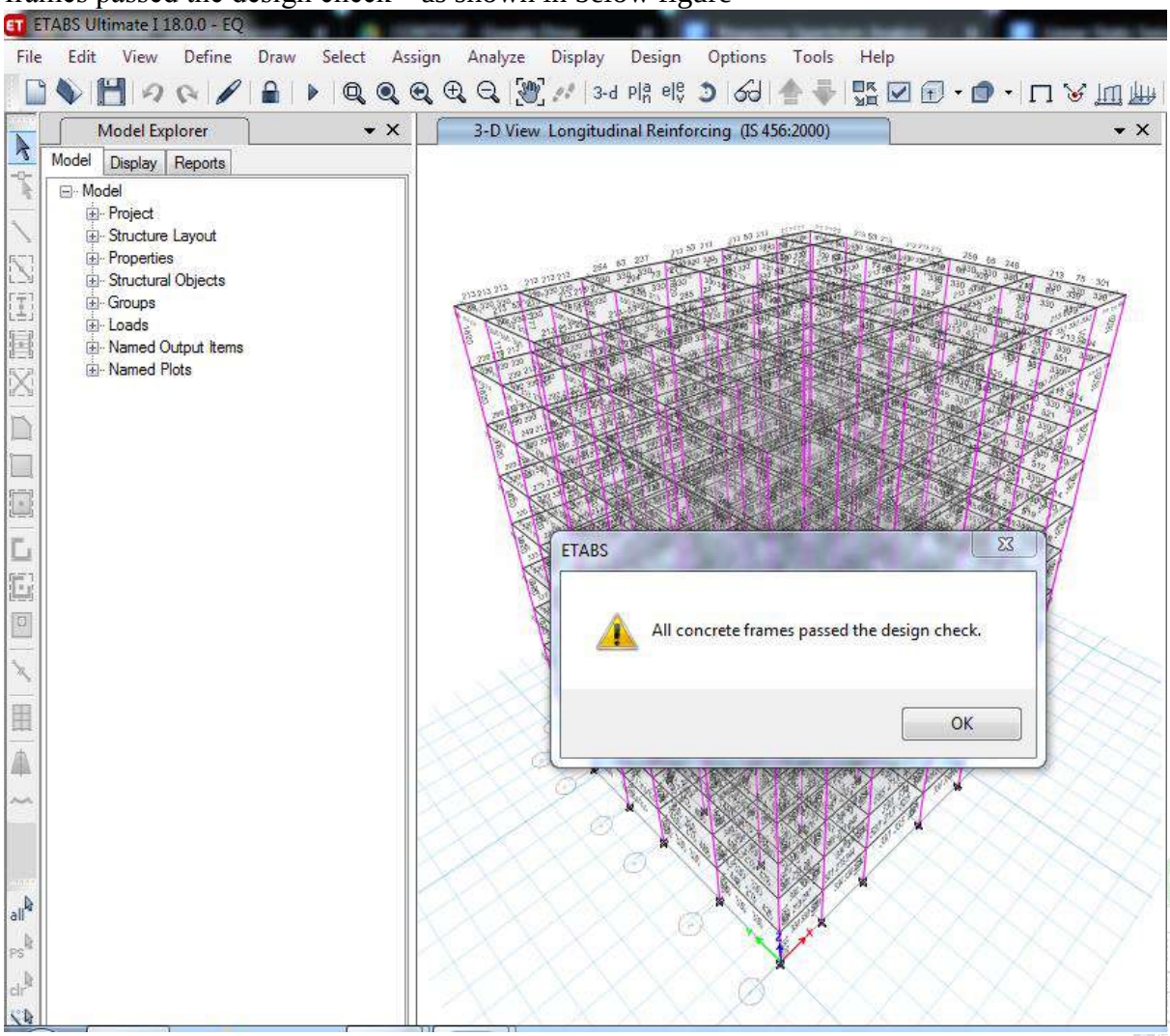
FAILURE SECTIONS MODIFICATION

Objective

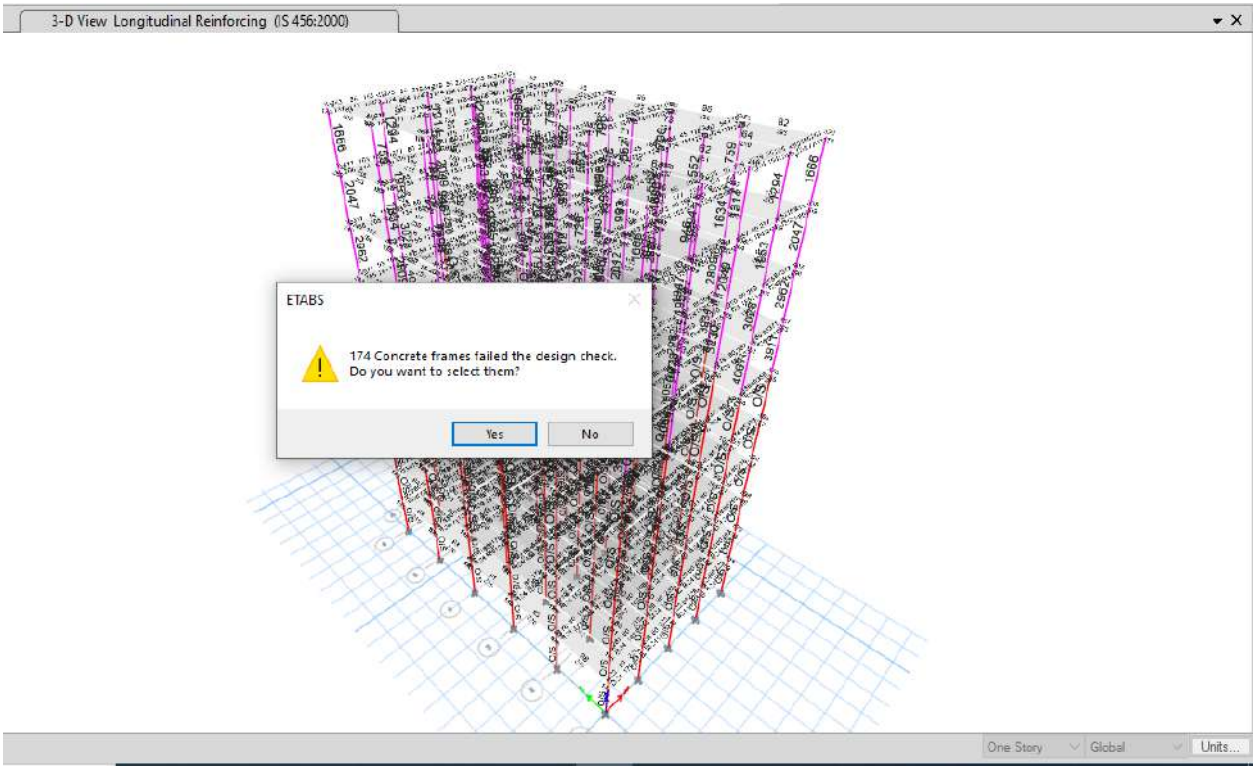
This chapter describes the process of Failure Sections Modification.

After analysis and design to check the failure members goto **Design menu > Concrete Frame Design > Verify all members Passed**

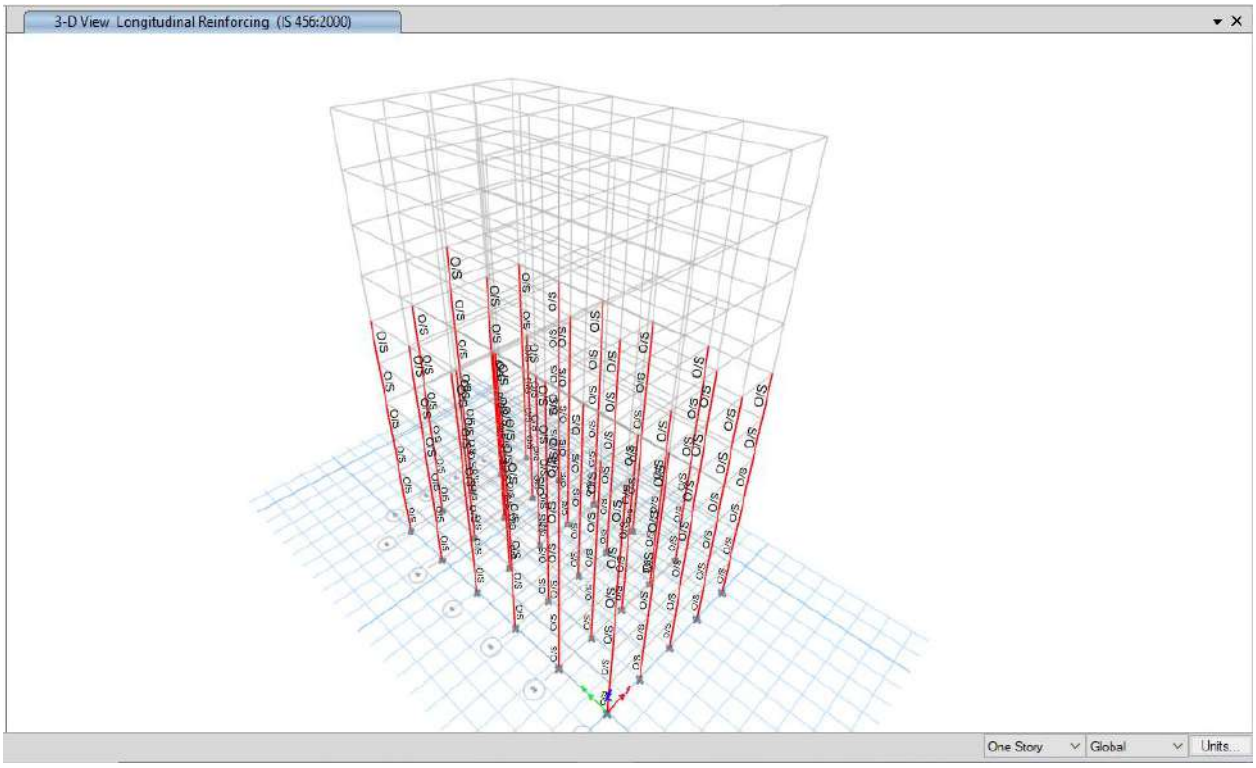
- If all the frame members are passed then it will displays the message as "All Concrete frames passed the design check" as shown in below figure



- If any frame sections got failed then it shows the number of failure members and click **Yes** to select the failure members as shown below.

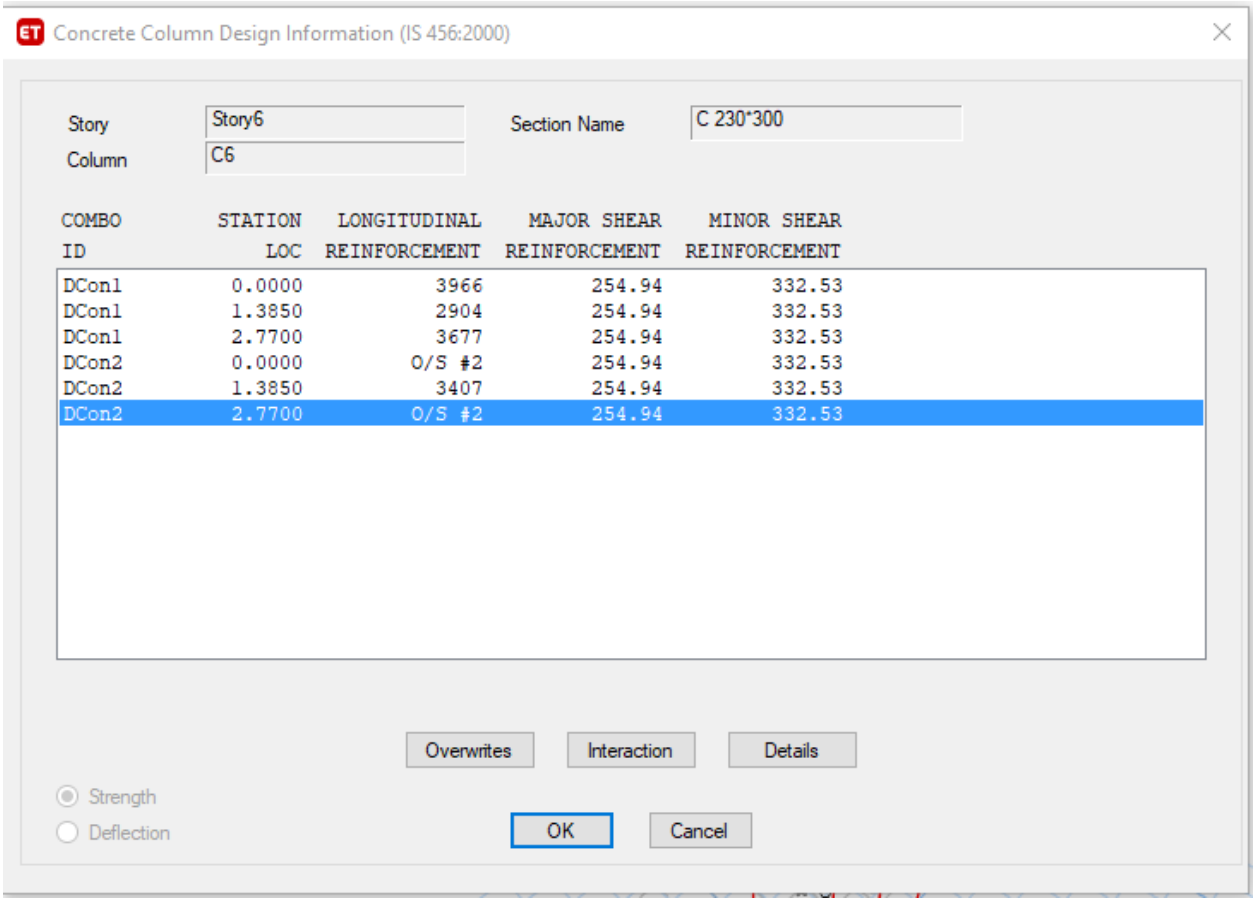


- After selecting the failure members right click and click on **Show selected objects only** option to display only the failure members as shown below

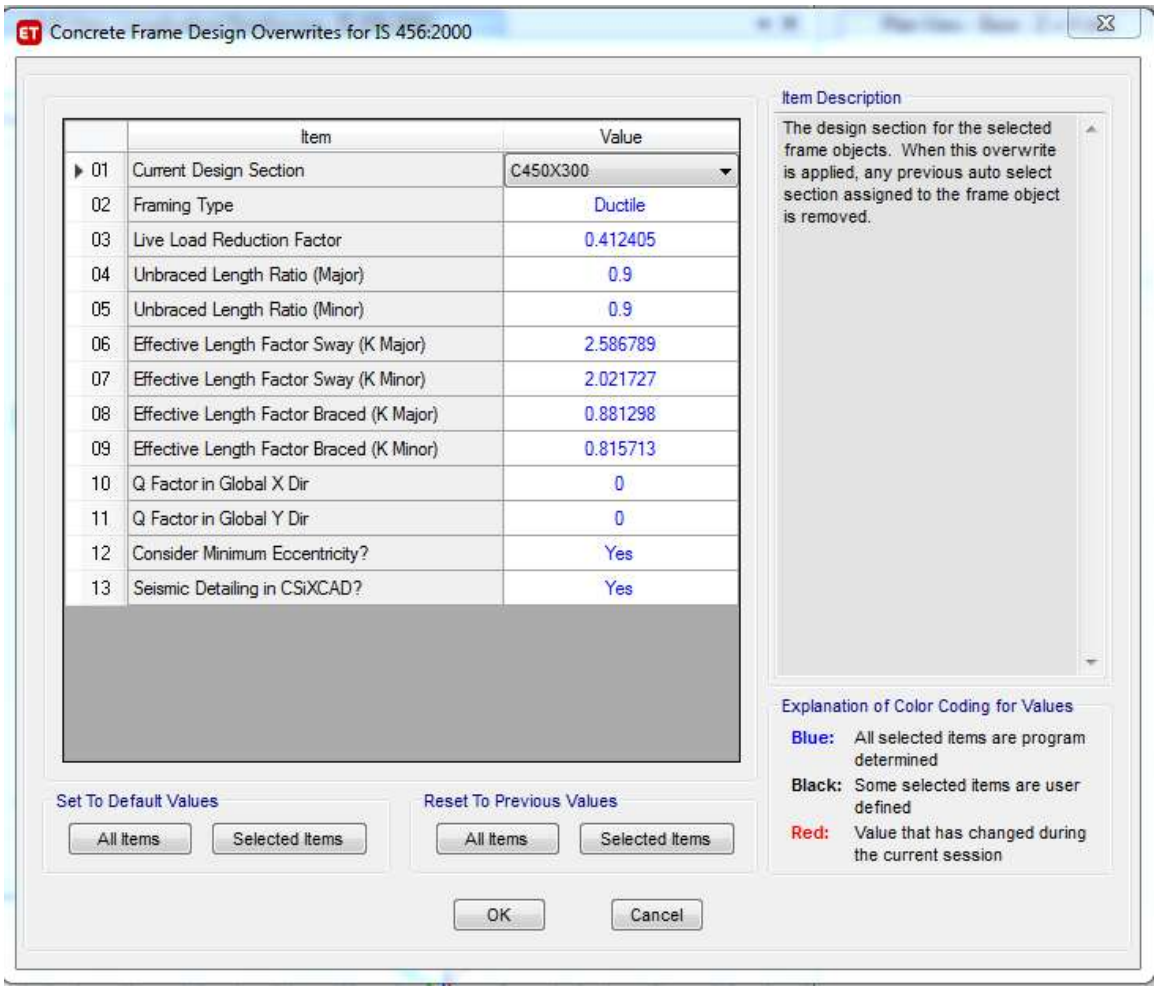


- Now select the member and right click to overwrite the section

Note: In the following figure the column section has failed due to insufficient longitudinal reinforcement. Here O/S resembles Over Stressed.



- Click on the **overwrite** option to change the section property which is pre- defined.
- The failed sections will be passed by making the changes either in sectional sizes or in material grade.



OR

Change an overwrite as follows:

1. Select the frame member(s) for which overwrites are being specified.
2. Click the **Design menu > Concrete Frame Design > Review/Revise Overwrites** command to access the **Concrete Frame Design Overwrites** form. The concrete frame overwrites are displayed with a column of checkboxes and a two-column spreadsheet. The left column in the spreadsheet contains the name of the overwrite item. The right column in the spreadsheet contains the overwrite value.

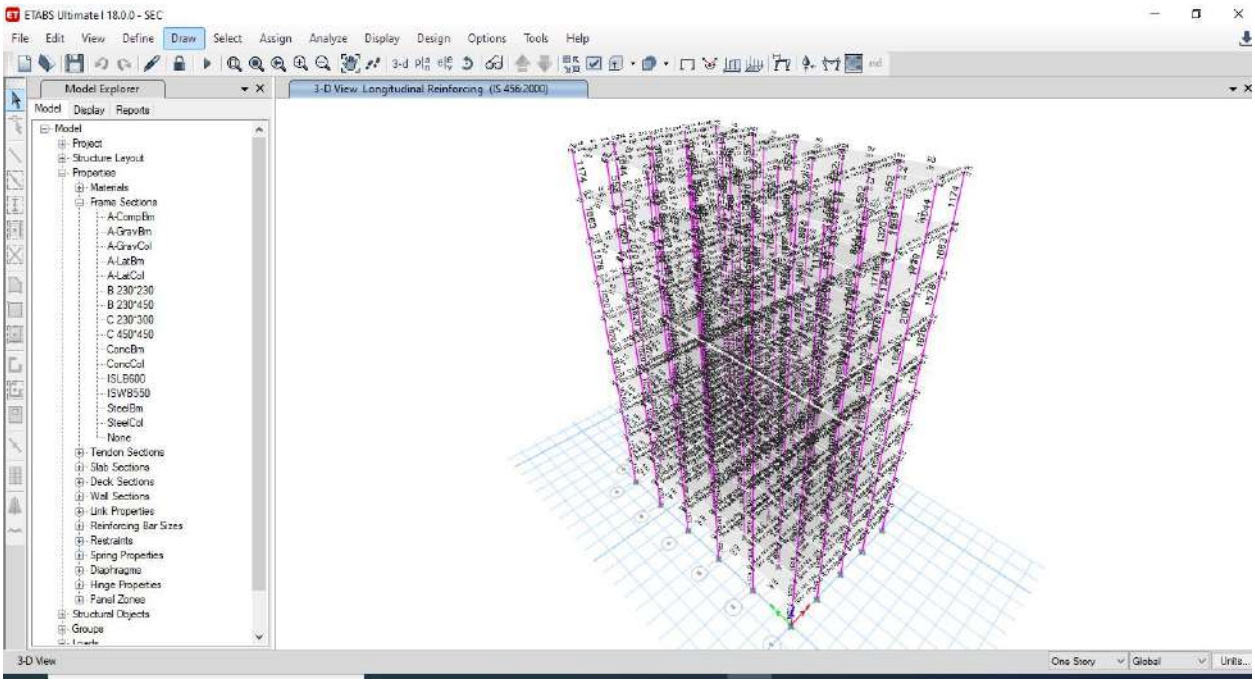
   Note: **The Concrete Frame Design Overwrites** form also displays when the **Overwrites** button is clicked on the Concrete Column Design Information {Code} or Concrete Beam Design Information {Code} form.

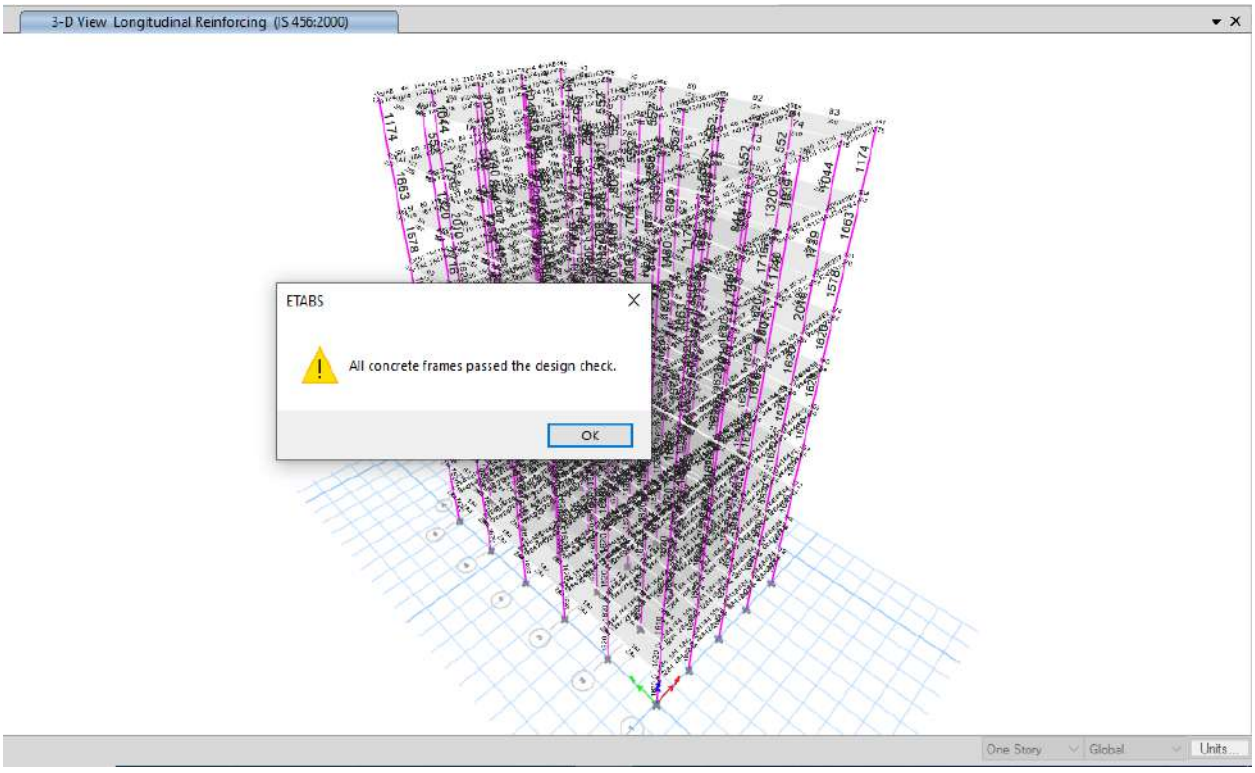
3. Click in any of the drop-down lists or edit boxes in the *Value* column to specify an overwrite value. The display area on the right-hand side of the form shows a short description of any item selected in the *Item*/*Value* columns.

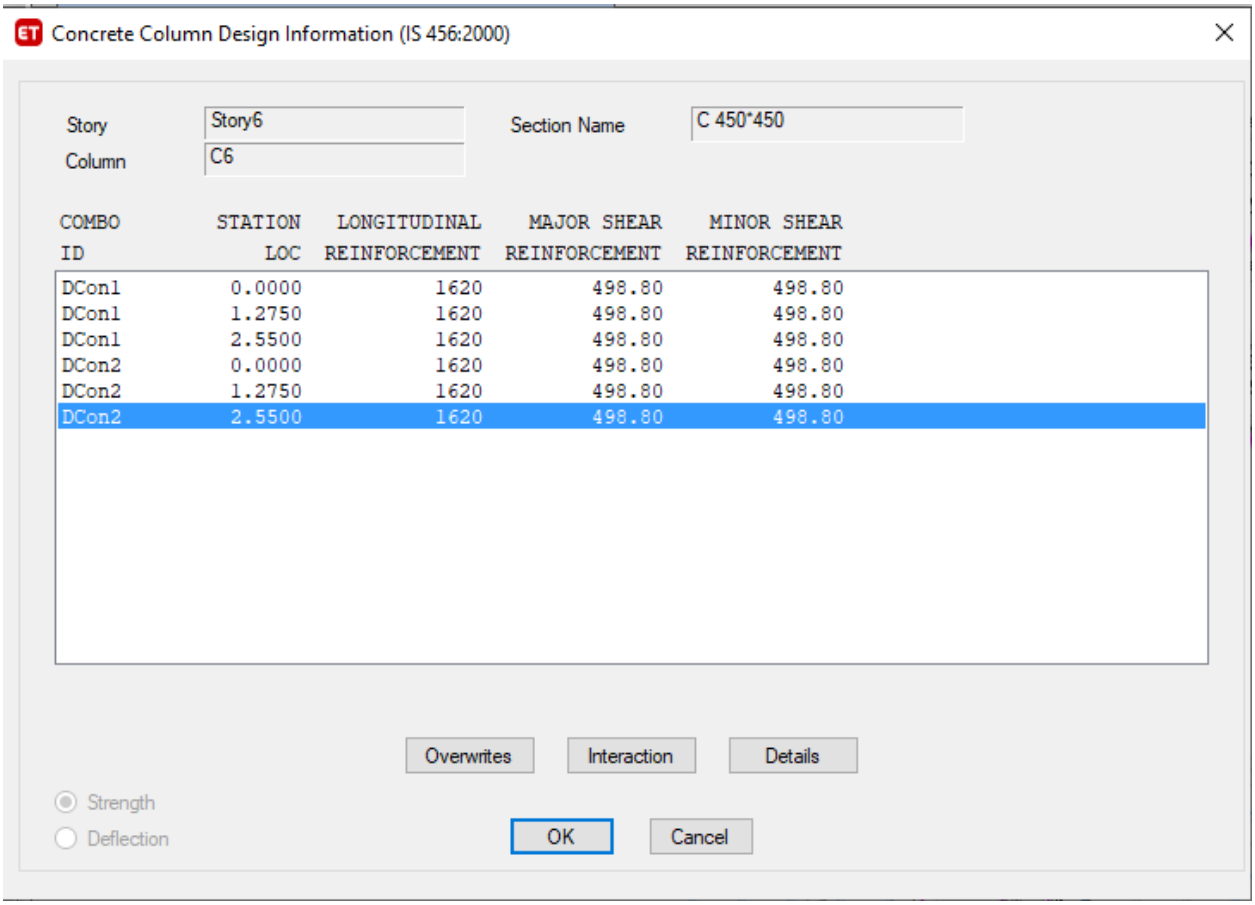
a. **Set to Default Values** area and All Items and Selected Items buttons. Click the All Items button at any time to reset all items to the program default. Click in the edit box or drop-down list in the *Value* column to select the item and then click the Selected Item button to restore that item to the program default.

b. **Reset to Previous Values** area and All Items and Selected Items buttons. Click the All Items button at any time to reset all items to the previously specified values. Click in the edit box

or drop-down list in the *Value* column to select the item and then click the Selected Item button to restore that item to the previously specified value.






Concrete Column Design Information (IS 456:2000)
Story
Story6
Column
C6
Section Name
C 450*450
COMBO ID
STATION LOC
LONGITUDINAL REINFORCEMENT
MAJOR SHEAR REINFORCEMENT
MINOR SHEAR REINFORCEMENT
DCon1 0.0000 1620 498.80 498.80
DCon1 1.2750 1620 498.80 498.80
DCon1 2.5500 1620 498.80 498.80
DCon2 0.0000 1620 498.80 498.80
DCon2 1.2750 1620 498.80 498.80
DCon2 2.5500 1620 498.80 498.80
Overwrites
Interaction
Details
Strength
Deflection
OK
Cancel