

The screenshot shows the Microsoft Excel interface with the 'Insert' tab selected. The 'Add-ins' button is highlighted in the ribbon. A green callout box points to the 'Store' button in the dropdown menu, with the text 'Insert>Add-ins>Store'.

Design limits			
$\theta_d$	2.50%		Design drift limit
$\Delta_d$	0.2 m		Design displacement
<b>Yield level</b>			
$\epsilon_y$	0.0015		Ref: DDBD book, Priestley (2007)
$\phi_y$	0.00242308 m-1		
$\Delta_y$	0.05169231 m		Yield displacement
$\mu$	3.86904762		Displacement ductility
$\xi$	15.48%		Equivalent vi Ref: DDBD draft code 2012 - CL 7.2
<b>Spectrum factors</b>			
$\eta$	0.63281484		Displacement reduction factor
$C_c$	0.71		Corner Spectrum Acc. Factor
$A_c$	2.0874		
$D_c$	0.47587014		Corner Spectrum displacement
$T_c$	3		Corner Spectrum period
$T_{eff}$	1.99244408 s		Effective period
<b>Design loads</b>			

The screenshot shows the Microsoft Excel interface with the 'Office Add-ins' window open. The search bar contains the text 'Pensolve'. A green callout box points to the search bar with the text 'Type "Pensolve" here'.

**Office Add-ins**

MY ADD-INS | **STORE**

Add-ins may access personal and document information. By using an add-in, you agree to its Permissions, License Terms and Privacy Policy.

Search:

**Suggested for you**

**Pensolve - Engineering Spreadsheet Standard**

Assess spreadsheets to highlight potential errors and convert to hand-written calculations

[May require additional purchase](#)

**Add**

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The screenshot shows the Microsoft Excel interface with the 'Review' tab selected. The 'Show Taskpane' button is highlighted in the ribbon. A green arrow points from this button to the 'Pensolve Engineering Spreadsheets' task pane on the right. The task pane contains a 'Convert your spreadsheet to hand-written layout' section with buttons for 'Assess spreadsheet' and 'Convert to PDF'. A 'Successful log in' message is also visible at the bottom of the task pane.

Design limits	Value	Unit	Description
$\theta_d$	2.50%		Design drift limit
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<b>Design loads</b>			

The screenshot shows the Microsoft Excel interface with the 'Review' tab selected. The 'Pensolve Engineering Spreadsheets' task pane is open on the right. Green callouts point to various features in the task pane: 'Reviews the spreadsheet' points to the 'Assess spreadsheet' button; 'Generates a PDF of hand-written calculations' points to the 'Convert to PDF' button; 'Colours the calculation cells' points to the 'Colour cells on assessment' toggle; 'Can view cell equation' points to the 'Show equation' toggle; and 'Auto re-assess spreadsheet' points to the 'Re-assess on changes' toggle. The task pane also displays a mathematical equation for  $\Delta_y$ .

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<b>Design loads</b>			

Equation: 
$$\Delta_y = \frac{\phi_y \cdot H^2}{3}$$

Status: Finished