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REINFORCED CONCRETE being a **COMPOSITE** material will only perform as such when there is adequate bond between its constituents.

The **reinforcement** bars must be well embedded and wrapped with **concrete**. Codes of Practice globally give guides that guarantees this composite action.

One of the is most important guide being minimum spacing between bars. That of the BS 8110: Part 1 is stated below:

3.12.11 Spacing of reinforcement

3.12.11.1 Minimum distance between bars

The horizontal distance between bars should not be less than $h_{agg} + 5$ mm, where h_{agg} is the maximum size of coarse aggregate. Where there are two or more rows:

- the gaps between corresponding bars in each row should be vertically in line;
- the vertical distance between bars should be not less than $2h_{agg}/3$.

When the bar size exceeds $h_{agg} + 5$ mm, a spacing less than the bar size or equivalent bar size should be avoided.

Current trends of Issuing "Unedited" Software Generated Reinforced Concrete Details is not only disturbing but sad.

These errors or complete neglect of detailing rules such as that mentioned above will not only undermine structural performance but can lead to **Catastrophe**.

Examples of Bad Structural Detailing Practices:

