

$$A = \begin{bmatrix} \text{diag}_{4n \times 4n} \\ \end{bmatrix} + \begin{bmatrix} \text{diag}_{4n \times 4k} \\ \end{bmatrix} \begin{bmatrix} \text{diag}_{4k \times 4k} \\ \end{bmatrix} \begin{bmatrix} \text{diag}_{4k \times 4n} \\ \end{bmatrix}$$

The diagram illustrates the structure of matrix A as a sum of three terms. The first term is a $4n \times 4n$ matrix with a diagonal of four shaded square blocks. The second term is a $4n \times 4k$ matrix with a diagonal of four shaded vertical rectangular blocks. The third term is a $4k \times 4k$ matrix with a sparse pattern of eight small white squares. This is followed by a $4k \times 4n$ matrix with a diagonal of four shaded horizontal rectangular blocks.