

$$\mathbf{A} = \begin{bmatrix} \boxed{\mathbf{I}} & \boxed{\bar{A}_{12}} & \cdots & \boxed{\bar{A}_{1M}} \\ \boxed{\bar{A}_{21}} & \boxed{\mathbf{I}} & \cdots & \boxed{\bar{A}_{2M}} \\ \vdots & \vdots & \ddots & \vdots \\ \boxed{\bar{A}_{M1}} & \boxed{\bar{A}_{M2}} & \cdots & \boxed{\mathbf{I}} \end{bmatrix}$$