$$\Omega = \begin{bmatrix} \begin{bmatrix} \tilde{\eta}_1 & \rho\tilde{\eta}_1 & \rho^2\tilde{\eta}_1 \\ \rho\tilde{\eta}_1 & \tilde{\eta}_1 & \rho\tilde{\eta}_1 \\ \rho^2\tilde{\eta}_1 & \rho\tilde{\eta}_1 & \tilde{\eta}_1 \end{bmatrix} & \begin{bmatrix} \tilde{\eta}_{1,2} & \rho\tilde{\eta}_{1,2} & \rho^2\tilde{\eta}_{1,2} \\ \rho\tilde{\eta}_{1,2} & \tilde{\eta}_{1,2} & \rho\tilde{\eta}_{1,2} \\ \rho^2\tilde{\eta}_{1,2} & \rho\tilde{\eta}_{1,2} & \tilde{\eta}_{1,2} \end{bmatrix} & \begin{bmatrix} \tilde{\eta}_{1,3} & \rho\tilde{\eta}_{1,3} & \rho^2\tilde{\eta}_{1,3} \\ \rho\tilde{\eta}_{1,3} & \tilde{\eta}_{1,3} & \rho\tilde{\eta}_{1,3} \\ \rho^2\tilde{\eta}_{1,3} & \rho\tilde{\eta}_{1,3} & \tilde{\eta}_{1,3} \end{bmatrix} \\ \begin{bmatrix} \tilde{\eta}_{1,2} & \rho\tilde{\eta}_{1,2} & \rho^2\tilde{\eta}_{1,2} \\ \rho\tilde{\eta}_{1,2} & \tilde{\eta}_{1,2} & \rho\tilde{\eta}_{1,2} \\ \rho^2\tilde{\eta}_{1,2} & \rho\tilde{\eta}_{1,2} & \tilde{\eta}_{1,2} \end{bmatrix} & \begin{bmatrix} \tilde{\eta}_2 & \rho\tilde{\eta}_2 & \rho^2\tilde{\eta}_2 \\ \rho\tilde{\eta}_2 & \tilde{\eta}_2 & \rho\tilde{\eta}_2 \\ \rho^2\tilde{\eta}_2 & \rho\tilde{\eta}_2 & \tilde{\eta}_2 \end{bmatrix} & \begin{bmatrix} \tilde{\eta}_{2,3} & \rho\tilde{\eta}_{2,3} & \rho^2\tilde{\eta}_{2,3} \\ \rho\tilde{\eta}_{2,3} & \tilde{\eta}_{2,3} & \rho\tilde{\eta}_{2,3} \\ \rho^2\tilde{\eta}_{2,3} & \rho\tilde{\eta}_{2,3} & \tilde{\eta}_{2,3} \end{bmatrix} \\ \begin{bmatrix} \tilde{\eta}_{1,3} & \rho\tilde{\eta}_{1,3} & \rho^2\tilde{\eta}_{1,3} \\ \rho\tilde{\eta}_{1,3} & \tilde{\eta}_{1,3} & \rho\tilde{\eta}_{1,3} \\ \rho^2\tilde{\eta}_{1,3} & \rho\tilde{\eta}_{1,3} & \tilde{\eta}_{1,3} \end{bmatrix} & \begin{bmatrix} \tilde{\eta}_{2,3} & \rho\tilde{\eta}_{2,3} & \rho^2\tilde{\eta}_{2,3} \\ \rho\tilde{\eta}_{2,3} & \tilde{\eta}_{2,3} & \rho\tilde{\eta}_{2,3} \\ \rho^2\tilde{\eta}_{2,3} & \rho\tilde{\eta}_{2,3} & \tilde{\eta}_{2,3} \end{bmatrix} & \begin{bmatrix} \tilde{\eta}_3 & \rho\tilde{\eta}_3 & \rho^2\tilde{\eta}_3 \\ \rho\tilde{\eta}_3 & \tilde{\eta}_3 & \rho\tilde{\eta}_3 \\ \rho^2\tilde{\eta}_3 & \rho\tilde{\eta}_3 & \tilde{\eta}_3 \end{bmatrix} \end{bmatrix}$$