$$\begin{pmatrix} \sigma_1(1-\gamma_{12}) & \sigma_2\rho_{21} & 0 & \sigma_4\varphi_4 & \sigma_5\varphi_5 \\ \sigma_1\gamma_{12} & \sigma_2(1-\gamma_{23}-\rho_{21}) & \sigma_3\rho_{32} & 0 & 0 \\ 0 & \sigma_2\gamma_{23} & \sigma_3(1-\gamma_{34}-\rho_{32}) & \sigma_4\rho_{43} & 0 \\ 0 & 0 & \sigma_3\gamma_{34} & \sigma_4(1-\gamma_{45}-\rho_{43}) & \sigma_5\rho_{54} \\ 0 & 0 & 0 & \sigma_4\gamma_{45} & \sigma_5(1-\rho_{54}) \end{pmatrix}$$