$$-\mathcal{L}_m = \overline{\begin{pmatrix} t_L \\ T_L \\ X_L^{2/3} \\ \tilde{T}_L \end{pmatrix}} \begin{pmatrix} 0 & \Delta_L & 0 & 0 \\ 0 & M_0 + \frac{fys^2}{2} & \frac{yfs^2}{2} & \frac{yfsc}{\sqrt{2}} \\ 0 & \frac{yfs^2}{2} & M_0 + \frac{fys^2}{2} & \frac{yfsc}{\sqrt{2}} \\ \Delta_R & \frac{yfsc}{\sqrt{2}} & \frac{fysc}{\sqrt{2}} & M_0 + yfc^2 \end{pmatrix} \begin{pmatrix} t_R \\ T_R \\ X_R^{2/3} \\ \tilde{T}_R \end{pmatrix} + h.c. \tag{1}$$

$$= \left(\psi_L^0\right)^\dagger M^t \psi_R^0 + h.c., \tag{2}$$