$$
\begin{tikzcd}
 & & \mathbb{Q}^2 \arrow[dl, dash] \arrow[dr, dash, "\begin{pmatrix} \cdot & 1 \\ \cdot & \cdot \end{pmatrix}"] & \\
F := & \mathbb{Q}^4 \arrow[ur, dash, "\begin{pmatrix} \cdot & \cdot \\ 1 & \cdot \\ \cdot & 1 \\ \cdot & \cdot \end{pmatrix}"] \arrow[dr, dash, "\begin{pmatrix} \cdot \\ 1 \\ \cdot \\ \cdot \end{pmatrix}"] \arrow[dd, "\begin{pmatrix} \cdot \\ 1 \\ \cdot \\ \cdot \end{pmatrix}"] & & \mathbb{Q}^2 \arrow[dd, "()_{2\times 0}"] \\
 & & \mathbb{Q}^1 \arrow[ur, dash, "\begin{pmatrix} \cdot & 1 \end{pmatrix}"] \arrow[dd, "\begin{pmatrix} 1 & \cdot \end{pmatrix}"] & \\
\psi \arrow[dd] & & \mathbb{Q}^4 \arrow[dl, dash, "\begin{pmatrix} \cdot & 1 & \cdot & \cdot \\ \cdot & \cdot & \cdot & \cdot \end{pmatrix}"] \arrow[dr, dash, "()_{4\times 0}"] & \\
G := & \mathbb{Q}^1 \arrow[ur, dash, "\begin{pmatrix} \cdot & 1 & \cdot & \cdot \end{pmatrix}"] \arrow[dr, dash, "\begin{pmatrix} 1 & \cdot \end{pmatrix}"] & & 0 \\
 & & \mathbb{Q}^2 \arrow[ur, dash, "()_{2\times 0}"] &
\end{tikzcd}
$$