For 0 boundary conditions at the edges, every Ny-th value at both the off-diagonals will be 0 to represent the boundary node (not included in x)

$$A = \begin{pmatrix}
\frac{-2}{h_x^2} + \frac{-2}{h_y^2} & \frac{1}{h_y^2} & \cdot & \frac{1}{h_x^2} & \cdot & \cdots & \cdots & \cdots & \cdot \\
\frac{1}{h_y^2} & \frac{-2}{h_x^2} + \frac{-2}{h_y^2} & \frac{1}{h_y^2} & \cdot & \frac{1}{h_x^2} & \cdot & \cdots & & \\
\cdot & \frac{1}{h_y^2} & \frac{-2}{h_x^2} + \frac{-2}{h_y^2} & 0 & \cdot & \ddots & \cdot & & \\
\frac{1}{h_x^2} & \cdot & 0 & \frac{-2}{h_x^2} + \frac{-2}{h_y^2} & \frac{1}{h_y^2} & \cdot & & & \\
\cdot & \frac{1}{h_x^2} & \cdot & \frac{1}{h_y^2} & \frac{-2}{h_x^2} + \frac{-2}{h_y^2} & \frac{1}{h_y^2} & & & \\
\cdot & \cdot & \ddots & \cdot & \ddots & \ddots & \ddots & & \\
\vdots & & & & & & & & \\
\vdots & & & & & & & & \\
\cdot & & & & & & & &
\end{pmatrix}$$

Far-diagonal distance [Ny] from main diagonal

$$x = \begin{pmatrix} T(x_1, y_1) \\ \vdots \\ T(x_1, y_{N_y}) \\ T(x_2, y_1) \\ T(x_2, y_2) \\ \vdots \\ \vdots \\ \vdots \\ T(x_{N_x}, y_{N_y}) \end{pmatrix} ; b = \begin{pmatrix} -2 * \pi^2 \sin(\pi x_1) \sin(\pi y_1) \\ \vdots \\ -2 * \pi^2 \sin(\pi x_1) \sin(\pi y_{N_y}) \\ -2 * \pi^2 \sin(\pi x_2) \sin(\pi y_1) \\ -2 * \pi^2 \sin(\pi x_2) \sin(\pi y_2) \\ \vdots \\ \vdots \\ \vdots \\ -2 * \pi^2 \sin(\pi x_{N_x}) \sin(\pi y_{N_y}) \end{pmatrix}$$