$$j_{1,\,out,\,x,\,R} - j_{1,\,inc,\,x,\,R} = -\frac{128\,D_0 j_{3,\,out,\,x,\,R}}{5\,Deltax\,DF_{0,\,x,\,R}} - \frac{224\,D_0 j_{1,\,inc,\,x,\,L}}{25\,Deltax\,DF_{0,\,x,\,L}} - \frac{128\,D_0 j_{3,\,inc,\,x,\,R}}{5\,Deltax\,DF_{0,\,x,\,R}}$$
$$- \frac{224\,D_0 j_{1,\,out,\,x,\,L}}{25\,Deltax\,DF_{0,\,x,\,L}} - \frac{896\,D_0 j_{1,\,out,\,x,\,R}}{25\,Deltax\,DF_{0,\,x,\,R}} - \frac{32\,D_0 j_{3,\,inc,\,x,\,L}}{5\,Deltax\,DF_{0,\,x,\,L}} - \frac{32\,D_0 j_{3,\,out,\,x,\,L}}{5\,Deltax\,DF_{0,\,x,\,L}}$$
$$- \frac{896\,D_0 j_{1,\,inc,\,x,\,R}}{25\,Deltax\,DF_{0,\,x,\,R}} + \frac{20\,D_0\,\bar{\Phi}_0}{Deltax} + \frac{60\,D_0\,\bar{\Phi}_{0,\,x,\,1}}{Deltax} + \frac{140\,D_0\,\bar{\Phi}_{0,\,x,\,2}}{Deltax}$$

$$j_{1,\,out,\,x,\,L} - j_{1,\,inc,\,x,\,L} = \frac{20\,D_0\,\bar{\Phi}_0}{Deltax} - \frac{60\,D_0\,\bar{\Phi}_{0,\,x,\,1}}{Deltax} + \frac{140\,D_0\,\bar{\Phi}_{0,\,x,\,2}}{Deltax} - \frac{896\,D_0 j_{1,\,out,\,x,\,L}}{25\,Deltax\,DF_{0,\,x,\,L}}$$
$$- \frac{128\,D_0 j_{3,\,out,\,x,\,L}}{5\,Deltax\,DF_{0,\,x,\,L}} - \frac{128\,D_0 j_{3,\,inc,\,x,\,L}}{5\,Deltax\,DF_{0,\,x,\,L}} - \frac{224\,D_0 j_{1,\,out,\,x,\,R}}{25\,Deltax\,DF_{0,\,x,\,R}} - \frac{224\,D_0 j_{1,\,inc,\,x,\,R}}{25\,Deltax\,DF_{0,\,x,\,R}}$$
$$- \frac{32\,D_0 j_{3,\,out,\,x,\,R}}{5\,Deltax\,DF_{0,\,x,\,R}} - \frac{32\,D_0 j_{3,\,inc,\,x,\,R}}{5\,Deltax\,DF_{0,\,x,\,R}} - \frac{896\,D_0 j_{1,\,inc,\,x,\,L}}{25\,Deltax\,DF_{0,\,x,\,L}}$$

$$j_{3,\,out,\,x,\,R} - j_{3,\,inc,\,x,\,R} = \frac{1}{Deltax}\left(-D_2\left(\frac{84}{5\,DF_{0,\,x,\,R}} + \frac{44}{3\,DF_{2,\,x,\,R}}\right) j_{3,\,out,\,x,\,R} - D_2\left(-\frac{4}{5\,DF_{0,\,x,\,L}}\right.\right.$$
$$\left. + \frac{12}{DF_{2,\,x,\,L}}\right) j_{3,\,out,\,x,\,L} - D_2\left(\frac{84}{5\,DF_{0,\,x,\,R}} + \frac{44}{3\,DF_{2,\,x,\,R}}\right) j_{3,\,inc,\,x,\,R} - D_2\left(-\frac{4}{5\,DF_{0,\,x,\,L}}\right.$$
$$\left. + \frac{12}{DF_{2,\,x,\,L}}\right) j_{3,\,inc,\,x,\,L} - D_2\left(\frac{588}{25\,DF_{0,\,x,\,R}} - \frac{44}{5\,DF_{2,\,x,\,R}}\right) j_{1,\,out,\,x,\,R} - D_2\left(-\frac{28}{25\,DF_{0,\,x,\,L}}\right.$$
$$\left. - \frac{36}{5\,DF_{2,\,x,\,L}}\right) j_{1,\,out,\,x,\,L} - D_2\left(\frac{588}{25\,DF_{0,\,x,\,R}} - \frac{44}{5\,DF_{2,\,x,\,R}}\right) j_{1,\,inc,\,x,\,R} - D_2\left(-\frac{28}{25\,DF_{0,\,x,\,L}}\right.$$
$$\left. - \frac{36}{5\,DF_{2,\,x,\,L}}\right) j_{1,\,inc,\,x,\,L} + 20\,D_2\,\bar{\phi}_2 + 140\,D_2\,\bar{\phi}_{2,\,x,\,2} + 60\,D_2\,\bar{\phi}_{2,\,x,\,1}\Bigg)$$

$$j_{3,\,out,\,x,\,L} - j_{3,\,inc,\,x,\,L} = \frac{1}{Deltax}\left(D_2\left(\frac{4}{5\,DF_{0,\,x,\,R}} - \frac{12}{DF_{2,\,x,\,R}}\right) j_{3,\,out,\,x,\,R} + D_2\left(-\frac{84}{5\,DF_{0,\,x,\,L}}\right.\right.$$
$$\left. - \frac{44}{3\,DF_{2,\,x,\,L}}\right) j_{3,\,out,\,x,\,L} + D_2\left(\frac{4}{5\,DF_{0,\,x,\,R}} - \frac{12}{DF_{2,\,x,\,R}}\right) j_{3,\,inc,\,x,\,R} + D_2\left(-\frac{84}{5\,DF_{0,\,x,\,L}}\right.$$
$$\left. - \frac{44}{3\,DF_{2,\,x,\,L}}\right) j_{3,\,inc,\,x,\,L} + D_2\left(\frac{28}{25\,DF_{0,\,x,\,R}} + \frac{36}{5\,DF_{2,\,x,\,R}}\right) j_{1,\,out,\,x,\,R} + D_2\left(-\frac{588}{25\,DF_{0,\,x,\,L}}\right.$$
$$\left. + \frac{44}{5\,DF_{2,\,x,\,L}}\right) j_{1,\,out,\,x,\,L} + D_2\left(\frac{28}{25\,DF_{0,\,x,\,R}} + \frac{36}{5\,DF_{2,\,x,\,R}}\right) j_{1,\,inc,\,x,\,R} + D_2\left(-\frac{588}{25\,DF_{0,\,x,\,L}}\right.$$
$$\left. + \frac{44}{5\,DF_{2,\,x,\,L}}\right) j_{1,\,inc,\,x,\,L} + 20\,D_2\,\bar{\phi}_2 + 140\,D_2\,\bar{\phi}_{2,\,x,\,2} - 60\,D_2\,\bar{\phi}_{2,\,x,\,1}\Bigg)$$

$$\bar{\Phi}_0 = 2\,\bar{\phi}_2 + \frac{S_0}{\Sigma_{rem,\,0}} - \frac{j_{1,\,out,\,x,\,R}}{\Sigma_{rem,\,0}\,Deltax} + \frac{j_{1,\,inc,\,x,\,R}}{\Sigma_{rem,\,0}\,Deltax} - \frac{j_{1,\,out,\,x,\,L}}{\Sigma_{rem,\,0}\,Deltax} + \frac{j_{1,\,inc,\,x,\,L}}{\Sigma_{rem,\,0}\,Deltax}$$
$$- \frac{j_{1,\,out,\,y,\,R}}{\Sigma_{rem,\,0}\,Deltay} + \frac{j_{1,\,inc,\,y,\,R}}{\Sigma_{rem,\,0}\,Deltay} - \frac{j_{1,\,out,\,y,\,L}}{\Sigma_{rem,\,0}\,Deltay} + \frac{j_{1,\,inc,\,y,\,L}}{\Sigma_{rem,\,0}\,Deltay} - \frac{j_{1,\,out,\,z,\,R}}{\Sigma_{rem,\,0}\,Deltaz}$$
$$+ \frac{j_{1,\,inc,\,z,\,R}}{\Sigma_{rem,\,0}\,Deltaz} - \frac{j_{1,\,out,\,z,\,L}}{\Sigma_{rem,\,0}\,Deltaz} + \frac{j_{1,\,inc,\,z,\,L}}{\Sigma_{rem,\,0}\,Deltaz}$$

$$\bar{\Phi}[0, x, 1] = \frac{8\,D_0 j_{3,\,out,\,x,\,L}}{5\,\Sigma_{rem,\,0}\,Deltax^2\,DF_{0,\,x,\,L}} - \frac{8\,D_0 j_{3,\,inc,\,x,\,R}}{5\,\Sigma_{rem,\,0}\,Deltax^2\,DF_{0,\,x,\,R}} + \frac{8\,D_0 j_{3,\,inc,\,x,\,L}}{5\,\Sigma_{rem,\,0}\,Deltax^2\,DF_{0,\,x,\,L}}$$
$$- \frac{\left(\frac{1}{2\,Deltax} + \frac{56\,D_0}{25\,DF_{0,\,x,\,R}\,Deltax^2}\right) j_{1,\,out,\,x,\,R}}{\Sigma_{rem,\,0}}$$
$$- \frac{\left(-\frac{1}{2\,Deltax} - \frac{56\,D_0}{25\,DF_{0,\,x,\,L}\,Deltax^2}\right) j_{1,\,out,\,x,\,L}}{\Sigma_{rem,\,0}}$$
$$- \frac{\left(-\frac{1}{2\,Deltax} + \frac{56\,D_0}{25\,DF_{0,\,x,\,R}\,Deltax^2}\right) j_{1,\,inc,\,x,\,R}}{\Sigma_{rem,\,0}}$$
$$- \frac{\left(\frac{1}{2\,Deltax} - \frac{56\,D_0}{25\,DF_{0,\,x,\,L}\,Deltax^2}\right) j_{1,\,inc,\,x,\,L}}{\Sigma_{rem,\,0}} + 2\,\bar{\phi}_{2,\,x,\,1} + \frac{S_{0,\,x,\,1}}{\Sigma_{rem,\,0}} - \frac{L_{1,\,xz,\,1}}{\Sigma_{rem,\,0}\,Deltaz}$$
$$- \frac{L_{1,\,xy,\,1}}{\Sigma_{rem,\,0}\,Deltay} - \frac{8\,D_0 j_{3,\,out,\,x,\,R}}{5\,\Sigma_{rem,\,0}\,Deltax^2\,DF_{0,\,x,\,R}}$$

$$\bar{\Phi}[0, x, 2] = -\frac{24\,D_0 j_{3,\,out,\,x,\,L}}{5\,\Sigma_{rem,\,0}\,Deltax^2\,DF_{0,\,x,\,L}} - \frac{24\,D_0 j_{3,\,inc,\,x,\,R}}{5\,\Sigma_{rem,\,0}\,Deltax^2\,DF_{0,\,x,\,R}} - \frac{24\,D_0 j_{3,\,inc,\,x,\,L}}{5\,\Sigma_{rem,\,0}\,Deltax^2\,DF_{0,\,x,\,L}}$$
$$- \frac{\left(\frac{1}{2\,Deltax} + \frac{168\,D_0}{25\,DF_{0,\,x,\,R}\,Deltax^2}\right) j_{1,\,out,\,x,\,R}}{\Sigma_{rem,\,0}}$$
$$- \frac{\left(\frac{1}{2\,Deltax} + \frac{168\,D_0}{25\,DF_{0,\,x,\,L}\,Deltax^2}\right) j_{1,\,out,\,x,\,L}}{\Sigma_{rem,\,0}}$$
$$- \frac{\left(-\frac{1}{2\,Deltax} + \frac{168\,D_0}{25\,DF_{0,\,x,\,R}\,Deltax^2}\right) j_{1,\,inc,\,x,\,R}}{\Sigma_{rem,\,0}}$$
$$- \frac{\left(-\frac{1}{2\,Deltax} + \frac{168\,D_0}{25\,DF_{0,\,x,\,L}\,Deltax^2}\right) j_{1,\,inc,\,x,\,L}}{\Sigma_{rem,\,0}} + 2\,\bar{\phi}_{2,\,x,\,2} + \frac{6\,D_0\,\bar{\Phi}_0}{\Sigma_{rem,\,0}\,Deltax^2} + \frac{S_{0,\,x,\,2}}{\Sigma_{rem,\,0}}$$
$$- \frac{L_{1,\,xz,\,2}}{\Sigma_{rem,\,0}\,Deltaz} - \frac{L_{1,\,xy,\,2}}{\Sigma_{rem,\,0}\,Deltay} - \frac{24\,D_0 j_{3,\,out,\,x,\,R}}{5\,\Sigma_{rem,\,0}\,Deltax^2\,DF_{0,\,x,\,R}}$$

$$\bar{\phi}[2] = \frac{5\, j_{3,\, out,\, x,\, R}}{\left(-5\,\alpha + 4\,\Sigma_{rem,\,0}\right) Deltax} - \frac{5\, j_{3,\, inc,\, x,\, R}}{\left(-5\,\alpha + 4\,\Sigma_{rem,\,0}\right) Deltax} + \frac{5\, j_{3,\, out,\, x,\, L}}{\left(-5\,\alpha + 4\,\Sigma_{rem,\,0}\right) Deltax}$$
$$- \frac{5\, j_{3,\, inc,\, x,\, L}}{\left(-5\,\alpha + 4\,\Sigma_{rem,\,0}\right) Deltax} + \frac{5\, j_{3,\, out,\, y,\, R}}{\left(-5\,\alpha + 4\,\Sigma_{rem,\,0}\right) Deltay} - \frac{5\, j_{3,\, inc,\, y,\, R}}{\left(-5\,\alpha + 4\,\Sigma_{rem,\,0}\right) Deltay}$$
$$+ \frac{5\, j_{3,\, out,\, y,\, L}}{\left(-5\,\alpha + 4\,\Sigma_{rem,\,0}\right) Deltay} - \frac{5\, j_{3,\, inc,\, y,\, L}}{\left(-5\,\alpha + 4\,\Sigma_{rem,\,0}\right) Deltay} + \frac{5\, j_{3,\, out,\, z,\, R}}{\left(-5\,\alpha + 4\,\Sigma_{rem,\,0}\right) Deltaz}$$
$$- \frac{5\, j_{3,\, inc,\, z,\, R}}{\left(-5\,\alpha + 4\,\Sigma_{rem,\,0}\right) Deltaz} + \frac{5\, j_{3,\, out,\, z,\, L}}{\left(-5\,\alpha + 4\,\Sigma_{rem,\,0}\right) Deltaz} - \frac{5\, j_{3,\, inc,\, z,\, L}}{\left(-5\,\alpha + 4\,\Sigma_{rem,\,0}\right) Deltaz}$$
$$+ \frac{2\, j_{1,\, out,\, x,\, R}}{\left(-5\,\alpha + 4\,\Sigma_{rem,\,0}\right) Deltax} - \frac{2\, j_{1,\, inc,\, x,\, R}}{\left(-5\,\alpha + 4\,\Sigma_{rem,\,0}\right) Deltax} + \frac{2\, j_{1,\, out,\, x,\, L}}{\left(-5\,\alpha + 4\,\Sigma_{rem,\,0}\right) Deltax}$$
$$- \frac{2\, j_{1,\, inc,\, x,\, L}}{\left(-5\,\alpha + 4\,\Sigma_{rem,\,0}\right) Deltax} + \frac{2\, j_{1,\, out,\, y,\, R}}{\left(-5\,\alpha + 4\,\Sigma_{rem,\,0}\right) Deltay} - \frac{2\, j_{1,\, inc,\, y,\, R}}{\left(-5\,\alpha + 4\,\Sigma_{rem,\,0}\right) Deltay}$$
$$+ \frac{2\, j_{1,\, out,\, y,\, L}}{\left(-5\,\alpha + 4\,\Sigma_{rem,\,0}\right) Deltay} - \frac{2\, j_{1,\, inc,\, y,\, L}}{\left(-5\,\alpha + 4\,\Sigma_{rem,\,0}\right) Deltay} + \frac{2\, j_{1,\, out,\, z,\, R}}{\left(-5\,\alpha + 4\,\Sigma_{rem,\,0}\right) Deltaz}$$
$$- \frac{2\, j_{1,\, inc,\, z,\, R}}{\left(-5\,\alpha + 4\,\Sigma_{rem,\,0}\right) Deltaz} + \frac{2\, j_{1,\, out,\, z,\, L}}{\left(-5\,\alpha + 4\,\Sigma_{rem,\,0}\right) Deltaz} - \frac{2\, j_{1,\, inc,\, z,\, L}}{\left(-5\,\alpha + 4\,\Sigma_{rem,\,0}\right) Deltaz}$$

$$\bar{\phi}[2, x, 1] = \frac{\left(\frac{1}{2\, Deltax} + \frac{\mathrm{D}_2\left(\frac{4}{5\, DF_{0,\, x,\, R}} + \frac{4}{3\, DF_{2,\, x,\, R}}\right)}{Deltax^2}\right) j_{3,\, out,\, x,\, R}}{\alpha}$$
$$- \frac{\left(-\frac{1}{2\, Deltax} + \frac{\mathrm{D}_2\left(-\frac{4}{5\, DF_{0,\, x,\, L}} - \frac{4}{3\, DF_{2,\, x,\, L}}\right)}{Deltax^2}\right) j_{3,\, out,\, x,\, L}}{\alpha}$$
$$- \frac{\left(-\frac{1}{2\, Deltax} + \frac{\mathrm{D}_2\left(\frac{4}{5\, DF_{0,\, x,\, R}} + \frac{4}{3\, DF_{2,\, x,\, R}}\right)}{Deltax^2}\right) j_{3,\, inc,\, x,\, R}}{\alpha}$$
$$- \frac{\left(\frac{1}{2\, Deltax} + \frac{\mathrm{D}_2\left(-\frac{4}{5\, DF_{0,\, x,\, L}} - \frac{4}{3\, DF_{2,\, x,\, L}}\right)}{Deltax^2}\right) j_{3,\, inc,\, x,\, L}}{\alpha}$$
$$- \frac{\mathrm{D}_2\left(\frac{28}{25\, DF_{0,\, x,\, R}} - \frac{4}{5\, DF_{2,\, x,\, R}}\right) j_{1,\, out,\, x,\, R}}{Deltax^2\, \alpha} - \frac{\mathrm{D}_2\left(-\frac{28}{25\, DF_{0,\, x,\, L}} + \frac{4}{5\, DF_{2,\, x,\, L}}\right) j_{1,\, out,\, x,\, L}}{Deltax^2\, \alpha}$$

$$
\begin{aligned}
&- \frac{D_2 \left(\frac{28}{25\, DF_{0,x,R}} - \frac{4}{5\, DF_{2,x,R}} \right) j_{1,inc,x,R}}{Deltax^2\, \alpha} - \frac{D_2 \left(-\frac{28}{25\, DF_{0,x,L}} + \frac{4}{5\, DF_{2,x,L}} \right) j_{1,inc,x,L}}{Deltax^2\, \alpha} \\
&+ \frac{2\, \Sigma_{rem,0}\, \bar{\Phi}_{0,x,1}}{5\, \alpha} - \frac{2\, S_{0,x,1}}{5\, \alpha} - \frac{L_{3,xz,1}}{\alpha\, Deltaz} - \frac{L_{3,xy,1}}{\alpha\, Deltay} \\
\bar{\phi}[2,x,2] = &- \frac{\left(\frac{1}{2\, Deltax} + \frac{3\, D_2 \left(\frac{4}{5\, DF_{0,x,R}} + \frac{4}{3\, DF_{2,x,R}} \right)}{Deltax^2} \right) j_{3,out,x,R}}{\alpha} \\
&- \frac{\left(\frac{1}{2\, Deltax} + \frac{3\, D_2 \left(\frac{4}{5\, DF_{0,x,L}} + \frac{4}{3\, DF_{2,x,L}} \right)}{Deltax^2} \right) j_{3,out,x,L}}{\alpha} \\
&- \frac{\left(-\frac{1}{2\, Deltax} + \frac{3\, D_2 \left(\frac{4}{5\, DF_{0,x,R}} + \frac{4}{3\, DF_{2,x,R}} \right)}{Deltax^2} \right) j_{3,inc,x,R}}{\alpha} \\
&- \frac{\left(-\frac{1}{2\, Deltax} + \frac{3\, D_2 \left(\frac{4}{5\, DF_{0,x,L}} + \frac{4}{3\, DF_{2,x,L}} \right)}{Deltax^2} \right) j_{3,inc,x,L}}{\alpha} \\
&- \frac{3\, D_2 \left(\frac{28}{25\, DF_{0,x,R}} - \frac{4}{5\, DF_{2,x,R}} \right) j_{1,out,x,R}}{Deltax^2\, \alpha} - \frac{3\, D_2 \left(\frac{28}{25\, DF_{0,x,L}} - \frac{4}{5\, DF_{2,x,L}} \right) j_{1,out,x,L}}{Deltax^2\, \alpha} \\
&- \frac{3\, D_2 \left(\frac{28}{25\, DF_{0,x,R}} - \frac{4}{5\, DF_{2,x,R}} \right) j_{1,inc,x,R}}{Deltax^2\, \alpha} - \frac{3\, D_2 \left(\frac{28}{25\, DF_{0,x,L}} - \frac{4}{5\, DF_{2,x,L}} \right) j_{1,inc,x,L}}{Deltax^2\, \alpha} \\
&+ \frac{6\, D_2\, \bar{\phi}_2}{\alpha\, Deltax^2} + \frac{2\, \bar{\Phi}_{0,x,2}\, \Sigma_{rem,0}}{5\, \alpha} - \frac{2\, S_{0,x,2}}{5\, \alpha} - \frac{L_{3,xz,2}}{\alpha\, Deltaz} - \frac{L_{3,xy,2}}{\alpha\, Deltay}
\end{aligned}
$$