

$$\begin{aligned}
x_2 &= x_1 - \Delta x_{fr} \frac{p_1 - p_0}{p_1}, \\
p_{y2} &= p_{y1} + y_1 \frac{\Delta y_{fr} - \Delta y_{fra} y_1^2}{p_1^2}, \\
z_2 &= z_1 + \frac{-\Delta x_{fr} p_{x1} + (\Delta y_{fr} - \Delta y_{fra} y_1^2/2) y_1^2 / (2p_1)}{p_1} - \Delta z_{fr},
\end{aligned} \tag{99}$$

where  $\Delta z_{fr} \equiv \Delta x_{fr} (\sin(\text{ANGLE E1} + \text{AE1}) + \sin(\text{ANGLE E2} + \text{AE2}))$ .