$$
\begin{aligned}
\Big\{ & \mathcal{A}_i{}^{b1c}\, \pi_{\mathcal{A}\,ab1}{}^{c1}\, {}_b a^{a1}\, \hat{\gamma}_{a1c1}\, \hat{\gamma}_{bc}\, h_k{}^b - \\
& \mathcal{A}_{ib1}{}^{c1}\, \pi_{\mathcal{A}\,ac}{}^d\, {}_b a^{a1}\, \hat{\gamma}_{a1d}\, \hat{\gamma}_{bc1}\, h_k{}^b\, n^{b1}\, n^c - \\
& \mathcal{A}_{b1}{}^{cc1}\, \pi_{\mathcal{A}\,ac}{}^d\, {}_b a^{a1}\, \hat{\gamma}_{a1d}\, \hat{\gamma}_{bc1}\, h_k{}^b\, n^{b1}\, n_i - \\
& \mathcal{A}_i{}^{cc1}\, \pi_{\mathcal{A}\,ac}{}^d\, {}_b a^{a1}\, \hat{\gamma}_{a1d}\, \hat{\gamma}_{b1c1}\, h^{bb1}\, n_b\, n_k + \\
& \mathcal{A}_{ic}{}^d\, \pi_{\mathcal{A}\,ac1}{}^{d1}\, {}_b a^{a1}\, \hat{\gamma}_{a1d1}\, \hat{\gamma}_{b1d}\, h^{bb1}\, n_b\, n^c\, n^{c1} \\
& n_k + \mathcal{A}_c{}^{c1d}\, \pi_{\mathcal{A}\,ac1}{}^{d1}\, {}_b a^{a1}\, \hat{\gamma}_{a1d1}\, \hat{\gamma}_{b1d}\, h^{bb1} \\
& n_b\, n^c\, n_i\, n_k - \pi_{\mathcal{A}\,ia1}{}^c\, \hat{\gamma}_{ab1}\, \hat{\gamma}_{bc}\, h_k{}^a\, \partial^{b1}{}_b a^{a1b} - \\
& {}_b a^{a1}\, \hat{\gamma}_{a1}{}^{b1}\, \hat{\gamma}_b{}^c\, h_k{}^b\, \partial_c \pi_{\mathcal{A}\,iab1} + \\
& \pi_{\mathcal{A}\,a1b}{}^{c1}\, \hat{\gamma}_{ac}\, \hat{\gamma}_{b1c1}\, h_k{}^a\, n^{a1}\, n_i\, \partial^c{}_b b^{b1} + \\
& \pi_{\mathcal{A}\,ib}{}^{c1}\, \hat{\gamma}_{a1c}\, \hat{\gamma}_{b1c1}\, h^{aa1}\, n_a\, n_k\, \partial^c{}_b b^{b1} - \\
& {}_b a^{a1}\, \hat{\gamma}_{a1}{}^c\, \hat{\gamma}_b{}^{c1}\, h_k{}^b\, n^{b1}\, n_i\, \partial_{c1} \pi_{\mathcal{A}\,ab1c} + \\
& {}_b a^{a1}\, \hat{\gamma}_{a1}{}^c\, \hat{\gamma}_{b1}{}^{c1}\, h^{bb1}\, n_b\, n_k\, \partial_{c1} \pi_{\mathcal{A}\,iac} - \\
& \pi_{\mathcal{A}\,bb1}{}^d\, \hat{\gamma}_{a1c1}\, \hat{\gamma}_{cd}\, h^{aa1}\, n_a\, n^b\, n_i\, n_k\, \partial^{c1}{}_b b^{b1c} + \\
& {}_b a^{a1}\, \hat{\gamma}_{a1}{}^{c1}\, \hat{\gamma}_{b1}{}^d\, h^{bb1}\, n_b\, n^c\, n_i\, n_k\, \partial_d \pi_{\mathcal{A}\,acc1} + \\
& \pi_{\mathcal{A}\,ac1}{}^{d1}\, {}_b a^{a1}\, \hat{\gamma}_{a1d1}\, \hat{\gamma}_{b1d}\, h_i{}^b\, h_k{}^{b1} \\
& n^c\, n^{c1}\, \partial^d{}_b b_{cb} - \pi_{\mathcal{A}\,ad}{}^e\, {}_b a^{a1}\, \hat{\gamma}_{a1e} \\
& \hat{\gamma}_{cd1}\, h^{b1c}\, h_i{}^b\, n_{b1}\, n^{c1}\, n^d\, n_k\, \partial^{d1}{}_b b_{c1b} - \\
& \pi_{\mathcal{A}\,ad}{}^e\, {}_b a^{a1}\, \hat{\gamma}_{a1e}\, \hat{\gamma}_{bd1}\, h^{b1c}\, h_k{}^b\, n_{b1}\, n^{c1} \\
& n^d\, n_i\, \partial^{d1}{}_b b_{c1c} + \pi_{\mathcal{A}\,ad1}{}^{e1}\, {}_b a^{a1}\, \hat{\gamma}_{a1e1}\, \hat{\gamma}_{c1e} \\
& h^{bb1}\, h^{cc1}\, n_b\, n_c\, n^d\, n^{d1}\, n_i\, n_k\, \partial^e{}_b b_{db1} \Big\}
\end{aligned}
$$