since $i(l)\Lambda = 0$.

Consequently, the condition $\Lambda \wedge w = 0$ for all $w \in W$ is equivalent to $i(\bar{Z})\Lambda \in \Lambda^{\perp}$ for all $\bar{Z}$, which is in turn equivalent to

(*) $$i(i(\bar{Z})\Lambda)\Lambda = 0 \quad \text{for all } \bar{Z} \in \Lambda^{k+1}V^*.$$

[($\Rightarrow$) We have to show that $i(\bar{Z})\Lambda \in \Lambda^{\perp}$ given an element $\bar{Z} \in \Lambda^{k+1}V^*$. To do this, we have only to prove that $\langle i(\bar{Z})\Lambda, w\rangle = 0$ for all $w \in W$. $\Rightarrow$ $\langle i(\bar{Z})\Lambda, w\rangle = \langle \bar{Z}, \Lambda\wedge w\rangle = 0$ since $\Lambda \wedge w = 0$ for all $w \in W$. //

($\Leftarrow$) Given $\forall w \in W$, we have to show that $\Lambda \wedge w = 0$. To show this, we have only to show that, for all $\bar{Z} \in \Lambda^{k+1}V^*$, $\langle \bar{Z}, \Lambda\wedge w\rangle = 0$ since $\Lambda^{k+1}V^* \longrightarrow \Lambda^{k+1}W^*$ is a natural projection. $\langle \bar{Z}, \Lambda\wedge w\rangle = \langle i(\bar{Z})\Lambda, w\rangle = 0$ since $i(\bar{Z})\Lambda \in \Lambda^{\perp} = \mathrm{Ann}(W)$.

$i(\bar{Z})\Lambda \in \Lambda^{\perp} = \{ v^* \in V^* \mid i(v^*)\Lambda = 0 \}$
$\Leftrightarrow i(i(\bar{Z})\Lambda)\Lambda = 0$.]

The left-hand side of (*) gives $\binom{n}{k+1}$ quadratic forms in the homogeneous coordinates Λ_I of $p(G(k,V))$; setting them equal to zero gives the classical Plücker relations.