$H^0(\mathbb{P}^2, \mathcal{O}(2H)) = \langle X_0^2, X_1^2, X_2^2, X_0X_1, X_0X_2, X_1X_2 \rangle.$
$\Rightarrow$ $(X_0=0)\times\mathbb{P}^2 + \mathbb{P}^2\times(X_0=0)$ is cut by Δ as X_0^2 in $\mathbb{P}^2$ $(\cong \Delta)$. More precisely,

$$\begin{array}{ccccc} [f^*i^*D] & \longrightarrow & [i^*D] & \longrightarrow & [(X_0=0)\times\mathbb{P}^2 + \mathbb{P}^2\times(X_0=0)] = [D] \\ \downarrow & & \downarrow & & \downarrow \\ \mathbb{P}^2 & \xrightarrow[\cong]{f'} & \Delta & \xhookrightarrow{i} & \mathbb{P}^2\times\mathbb{P}^2 \end{array}$$

$\Rightarrow$ $f'^*i^*D = (X_0^2=0)$.
Similarly we get

$$f'^*i^*((X_0=0)\times\mathbb{P}^2 + \mathbb{P}^2\times(X_1=0)) = (X_0X_1=0),$$

since $f'^*i^*((X_0=0)\times\mathbb{P}^2) = (X_0=0)$.
Thus $|W_1+W_2|$ cuts out the complete series $|\mathcal{O}_{\mathbb{P}^2}(2H)|$ on Δ.

$$\begin{array}{ccccc} \Delta & \hookrightarrow & \mathbb{P}^{2*}\times\mathbb{P}^{2*} & \xrightarrow{f} & W_2 \subset W \ (\cong \mathbb{P}^5) \\ & & \ni ((a_0X_0+a_1X_1+a_2X_2=0),\ (a_0X_0+a_1X_1+a_2X_2=0)) & \mapsto & ((a_0X_0+a_1X_1+a_2X_2)^2=0) \\ \cong\updownarrow & & \updownarrow & & \| \\ & & & & (a_0^2X_0^2+a_1^2X_1^2+a_2^2X_2^2+2a_0a_1X_0X_1+2a_0a_2X_0X_2 \\ \mathbb{P}^2 & \ni & [a_0, a_1, a_2] & & +2a_1a_2X_1X_2=0) \\ & & & \searrow^{\varphi} & \updownarrow \\ & & & & [a_0^2, a_1^2, a_2^2, 2a_0a_1, 2a_0a_2, 2a_1a_2] \in \mathbb{P}^5 \end{array}$$

$\psi\circ\varphi$ is the Veronese map, see P179, where $\psi : \mathbb{P}^5 \longrightarrow \mathbb{P}^5$ is defined by $[X_0, X_1, X_2, X_3, X_4, X_5] \mapsto [X_0, X_1, X_2, \frac{1}{2}X_3, \frac{1}{2}X_4, \frac{1}{2}X_5]$.