sts of 32 distinct lines in all.

The base points of our pencil are therefore all simple points and hence smooth points of every curve D_V in our pencil.

Γ $V_3, V_3' \in \sigma_{2,2,2,1}(V_2, V_4)$.
$\Rightarrow \#(D_V \cdot \sigma_1(V_3')) = \#(D_V \cdot D_V) = 32$ by P 780.
$\Rightarrow$ The base points of the pencil are all simple points, otherwise, $\#(D_V \cdot D_V) > 32$, since $\#(D_V \cap \sigma_1(V_3')) \geq 32$. $\Rightarrow$ They are smooth points of every D_V in our pencil.

Thus the generic divisor D_V is smooth.

Γ

If not, $\exists$ open set U in $G(4,6)$ s.t. for every $V_3 \subset U$, D_V is singular. $\Rightarrow$ Impossible, $\exists$ a pencil $\sigma_{2,2,2,1}(V_2, V_4) \cap U \neq \phi$, and $\exists$ $V \in \sigma_{2,2,2,1}(V_2, V_4) \cap U$ s.t. D_V is smooth, by Bertini's theorem. $\Rightarrow$ Contradiction.