$$\|a_k^j\| = \|A\| \neq 0.$$

The condition is necessary: it follows from (5) that the Laplacian with respect to the z' can be written in the form

$$\Delta V = \sum \frac{\partial^2 V}{\partial z'_p \partial \bar{z}'_q} = \sum_{j,p,q} \frac{\partial^2 V}{\partial z_p \partial \bar{z}_q} a_p^j \bar{a}_q^j = \sum_j \sum_{p,q} \frac{\partial^2 V}{\partial z_p \partial \bar{z}_q} a_p^j \bar{a}_q^j =$$

$$\sum_j T(V, \vec{a}^j) \geq 0 \qquad (6)$$

so that $V'[z'] = V[A(z')]$ is $\mathbb{R}^{2n}$-subharmonic, conditions 1 a and 1 c holding also for V'.

$\Gamma(\Rightarrow)$ $\dfrac{\partial}{\partial \bar{z}'_q} = \dfrac{\partial \bar{z}_i}{\partial \bar{z}'_q} \dfrac{\partial}{\partial \bar{z}_i}$ $\qquad z_k - z_k^\circ = \sum a_k^j z'_j$

$\Rightarrow$ $\bar{z}_k - \bar{z}_k^\circ = \sum \bar{a}_k^j \bar{z}'_j$ $\qquad \bar{z}_i - \bar{z}_i^\circ = \sum \bar{a}_i^j \bar{z}'_j$

$\Rightarrow$ $\dfrac{\partial \bar{z}_i}{\partial \bar{z}'_q} = \bar{a}_i^q \Rightarrow \dfrac{\partial}{\partial \bar{z}'_q} = \bar{a}_i^q \dfrac{\partial}{\partial \bar{z}_i}$

Similarly, $\dfrac{\partial}{\partial z'_p} = a_j^p \dfrac{\partial}{\partial z_j}$.

$$\Rightarrow \sum \frac{\partial^2 V}{\partial z'_p \partial \bar{z}'_p} = \sum \frac{\partial^2 V}{\partial z_p \partial \bar{z}_q} a_p^j \bar{a}_q^j = \sum_j \sum_{p,q} \frac{\partial^2 V}{\partial z_p \partial \bar{z}_q} a_p^j \bar{a}_q^j$$

$$= \sum_j T(V, \vec{a}^j) \geq 0 \quad \text{by } P(1)\ (5) \qquad (6)$$

The condition is sufficient: it suffices to prove that if (6) is true for every regular matrix A, then (5)