

EXHIBIT B

Kopald Aggrieved Neighbor claim—sunlight and heat bill. Analysis, Jack Jannarone, ZBA Chair.

The applicant, Deborah Kopald asserts that she is aggrieved because “4. Furthermore, the illegal tree destruction has also caused more light to shine on my property. The excess light is annoying and intrusive visually, and the marked difference is palpable in my driveway. It is an obvious fact that the lack of tree cover and excessive direct sunlight will cause my property to increase in heat and cause my cooling bill to go up in the summer”. This obvious fact claimed by Ms. Kopald is not true according to geometry and the laws of nature.

Mr. Finkbeiner, on behalf of Ms. Kopald, submitted an aerial photograph of the Kopald and Tonneson preexisting forested properties taken in 2016. On this image he overlaid an image of the clearing created by the Tonnesons using special software. The location of True North is also depicted. This composite image shows that the Kopald house is located due north of the Tonneson house with about 30 to 40 percent of the clearing located to the west of the Kopald house in addition to being south of it. Mr. Millen, surveyor for the Tonnesons, submitted an “as built” survey dated 5/28/2020. This survey also shows that the Kopald house is located due north of the new Tonneson house. According to testimony at the June 2020 Public hearing, the Kopald house is at least 180 feet from the cleared area and about 60 feet higher as well.

So, it stands to reason that for “...excessive direct sunlight...” to shine on Ms. Kopald's house, the sun would have to shine through the cleared forest and impinge on Ms. Kopald's house. Simple geometry and the laws of nature dictate that this will not happen. If Ms. Kopald were to look out of her rear windows on March 21st of any year at sunrise, she would see that the bearing of the sun is due east. This is the definition of the first day of Spring. Because her house is north of the clearing, the sun at sunrise would be shining, depending on the intervening terrain, first, through undisturbed forest belonging to The Palisades Park Commission; second, through undisturbed forest belonging to the Tonnesons, and finally, through her own undisturbed forest. When the sun had risen sufficiently so that it was no longer shining through forest, but down on forest, Ms. Kopald would be shaded by the tops of her own trees.

For the next the 90 days the sunrise will move steadily to the north increasing the angular offset from the clearing and will always shine through undisturbed forest. On June 21st in a nominal year the sunrise will reach its maximum offset to the north from east. Taking into account the tilt of the earth's axis and the spherical shape of the earth as well as the latitude of Ft. Montgomery, this excursion will amount to just over 30 degrees. For the next 90 days the sunrise will move back to due east which will occur on or about September 21st, the first day of Autumn. So, from the first day of Spring through the first day of Fall, the sun will not and cannot shine through the clearing on the Tonneson property onto Ms Kopald's house.

For the next 90 days the sunrise will continue to move to the south until it reaches its maximum southern excursion on December 21st, the first day of winter. Ironically, Ms. Kopald might benefit from free solar heat if the sun could shine through the Tonneson clearing to her house. However, even on December 21st, at its maximum southern deflection, the sun will not shine through the clearing to warm Ms. Kopald. And, for the next 90 days the sunrise will again start moving to the north until it reaches due east on the first day of Spring.

For the entire year, at no time did or can the sun shine directly through the clearing on the

Tonneson property to Ms. Kopald's house, and therefore, it could not cause an increase in her summer cooling bill. The excess light that Ms. Kopald finds “annoying and intrusive visually” and “palpable” on her driveway could only be coming indirectly from the Tonneson property, if at all. In any case, such a claim is entirely subjective and self-serving. Ms Kopald is not an aggrieved neighbor as she claims in paragraph 4.