IN THE CHANCERY COURT OF TENNESSEE FOR THE TWENTIETH JUDICIAL DISTRICT

TELISE TURNER, GARY WYGANT, and FRANCIE HUNT,	
Plaintiffs,	
v.	CASE NO. 22-0287-IV
BILL LEE, Governor, TRE HARGETT, Secretary of State, MARK GOINS, Tennessee Coordinator of Elections; all in their official capacity only,	THREE-JUDGE PANEL CHANCELLOR PERKINS, CHIEF CHANCELLOR MARONEY CIRCUIT JUDGE SHARP
Defendants.)

AFFIDAVIT OF JONATHAN CERVAS

- I, Jonathan Cervas, under penalty of perjury, do hereby attest as follows:
- 1. I have reviewed the Defendants' Reply filed on March 1, 2023, in this matter. I have also reviewed the Affidavit of David G. Bradlee, filed with Defendants' Reply on March 1. I offer this affidavit in response to Defendants' Reply and in response to Mr. Bradlee's affidavit.
- 2. After reviewing Defendants' Reply and Mr. Bradlee's affidavit, Plaintiffs' counsel convened a video conference with Mr. Bradlee and asked if I would attend. I know Mr. Bradlee through my professional work, and I was happy to talk with him.
- 3. During that video conference, I explained to Mr. Bradlee in detail the actions that led to my February 24, 2023, affidavit that has been filed in this matter. While Mr. Bradlee explained that he would not have described the actions I took using the language I used in my affidavit, he responded that he understood the actions I took and that the Dave's Redistricting App (henceforth DRA) allows users to take the actions I took.

- 4. Specifically, I explained during that video conference that I maintain copies of all maps I have prepared for this Court as Block Assignment files. That includes the files for the map depicted as "Cervas Map 13d_e". The text file exported from DRA for each map contain a list of comma separated values (known as a CSV file or a block equivalency file) that assign each unique census block to a district. After learning of contiguity problems in that map, and that a persistent software flaw on DRA related to contiguity had been remedied, I corrected the three misassigned census blocks to ensure all districts were contiguous. I gave the map a new name, "Cervas Map 13d_e2". Unfortunately, because I had not first duplicated the map, the map shown when clicking the link in my earlier report now linked to "Cervas Map 13d_e2", which had three different block assignments than "Cervas Map 13d_e". I further explained to Mr. Bradlee that Defendants filed a brief indicating I had changed the map, and Plaintiffs' counsel requested that I make sure that the link in my January 9, 2023, report showed "Cervas Map 13d_e" as presented in that report. Using the original Block Assignment file for Cervas Map 13d_e, I overwrote the block assignment data that was in the previously drawn map, though I did not change the URL.
- January 9, 2023, report. Thus, Cervas House Map 13d_e is once again the map connected to that web address, and the issue raised by Defendants has been resolved." Cervas Aff. at 6. I understand that Defendants argue that it is "simply impossible" to "reroute a URL to a different map" Defendants' Reply at 4. It appears that Defendants are characterizing my words as if I claim to have changed a URL. To the contrary, I ensured that the URL *routes* to the correct map. I cannot change the URL at issue, and I would not want to change the URL at issue.
- 6. The URL hyperlinked in my January 9, 2023, report originally *routed* to a copy of Cervas Map 13d_e. After receiving a response to my report from Defendants that indicated minor

contiguity errors, I made corrections to Cervas Map 13d_e that ensured contiguity. I did so without first consulting with counsel and did this in my own time and for my own edification. Unfortunately, I inadvertently forgot to first duplicate the map on DRA, so now the link *routed* to a map with corrections, which I labeled "Cervas Map 13d_e2", indicating to myself a new version.

- 7. When producing reports for this litigation, and in developing illustrative maps, to ensure integrity of the map files, I store original Block Assignment files and shapefiles for each plan on my computer.¹ These files make it possible to reproduce a map. In Figure 1, the "Date Modified" column in this file folder indicates when these files were downloaded to my computer and the last time they were modified. The file "TN House 13d_e.csv" is dated January 5, 2023, days before I filed my January 9, 2023, report presenting that map. It is with this file that I was able to reroute the URL hyperlinked in that January 9, 2023, report to Cervas Map 13d_e.
- 8. As with all the maps I produced for this Court, I have the original Block Assignment file for Cervas Map 13d_e stored locally on my computer (See Figure 1). Plaintiffs' counsel requested that I ensure that the URL from my January 9, 2023, report corresponded with Cervas Map 13d_e. To do so, I first opened that link and exported the corrected map ("Cervas Map 13d_e2") and saved the Block Assignment file for my records. Next, I used the function "Color Map from File" in DRA to upload the original Cervas Map 13d_e map using the Block Assignment

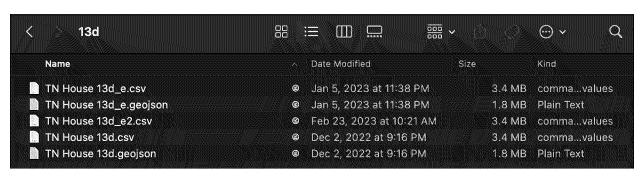
instructed the state to verify contiguity of all districts before the plan would take legal effect. To suggest I have done so to tamper with evidence is simply incorrect.

Without software like Dave's Redistricting App or Maptitude for Redistricting, a Block Assignment file is meaningless. If opened on a computer using spreadsheet software, it would appear as a file with over 150,000 rows and 2 columns (over 300,000 values), which identify each census block in the state and to which district they should be assigned. I provided links to the Court and the defendants to DRA in the interest of transparency. In my work as Special Master in New York, I also delivered a link to a map in DRA for the same purposes of transparency. A Block Assignment file was delivered to the state only after the court approved the plans, and the court

file I preserved on my computer for this litigation.² Thus, the URL in my January 9, 2023, report was *rerouted* back to the Cervas Map 13d_e map. Defendants acknowledge it is possible to have links route to different maps in their own response to my affidavit by saying "[t]hat URL hyperlink now <u>led</u> to a previously undisclosed map: Cervas Map 13d_e2." Defendants' Reply at 3 (emphasis added).

- 9. Defendants say "[i]t is now too late for Plaintiffs to provide Defendants or the Court verifiable shapefiles or block assignment files of two of their expert's alternative maps." Defendants' Reply at 7. The Defendants had not previously asked me to produce Block Assignment files after previous reports were issued. However, I do retain the original files on my personal computer. To do so, I export the files from DRA.³ I include in these files the map I created for my own benefit, which I titled "Cervas Map 13d_e2." That map, which was not included in my reports, corrects the contiguity issue identified by the Defendants.⁴
- 10. The following is a screen shot showing the original saved Block Assignment files for all the plans at issue saved on my computer:

Figure 1: Screenshot of file folder containing original block assignment files



For more information on how to replace a map by importing a Block Assignment file, see: https://medium.com/dra-2020/importing-maps-67b0085c1ab6

See https://medium.com/dra-2020/exporting-maps-f8b2097579d2 for how to export an assignment file from DRA

There are 3 census blocks that are different out of 179,717. That is 99.998% the same.

11. To be exceedingly clear, the files pictured above are the original Block Assignments files for each map addressed herein. I created the original maps in DRA; I exported the maps' Block Assignment files from DRA to my computer after creating the maps; and neither I nor anyone else has altered these files since I created them. Thus, no maps have been destroyed, and I can easily produce the original maps by importing these Block Assignment files into any

map viewing software, including DRA and Maptitude for Redistricting.

12. In short, I have done nothing out of the ordinary to make any changes to any maps I have provided for this litigation. To the contrary, I have taken steps that David Bradlee, who runs

the map software at issue, says can be taken to modify maps or replace maps completely with

Block Assignment files.

13. If asked, I would gladly testify before this Court to explain all work that I have done

related to this litigation, including the actions raised by Defendants' Motion.

I hereby swear that the above-stated testimony is true and accurate to the best of my

knowledge and memory.

Jonathan Cervas 03/06/2023
JONATHAN CERVAS DATE

STATE TENNESSEE COUNTY SHELBY

Signed, sworn to, and acknowledged before me via audio and video means by Jonathan Cervas, this is the $\frac{6 \text{th}}{2}$ day of March, 2023.

My Commission Expires: ______.



Remotely Notarized with audio/video via Simplifile

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