



State Legislative Redistricting Subcommittee

**Wednesday, October 13, 2021
1:00 PM – 2:30 PM
404 HOB**

Meeting Packet

EXHIBIT

J31

Committee Meeting Notice

HOUSE OF REPRESENTATIVES

State Legislative Redistricting Subcommittee

Start Date and Time: Wednesday, October 13, 2021 01:00 pm
End Date and Time: Wednesday, October 13, 2021 02:30 pm
Location: Sumner Hall (404 HOB)
Duration: 1.50 hrs

Website Update

Map Drawing Application - Advanced Functionality

For information about attending or testifying at a committee meeting, please see the "Visiting the House" tab at www.myfloridahouse.gov.

NOTICE FINALIZED on 10/06/2021 4:22PM by Ellerkamp.Donna

Florida House of Representatives State Legislative Redistricting Subcommittee

October 13, 2021



Agenda

1. Website Updates
2. Advanced Esri Functionality & Demonstration





Redistricting Website Update



Advanced Esri Functionality

Constitutional Standards

Art. III, Sections 20 & 21 of Florida Constitution

Tier 1 Standards

No apportionment plan or individual district shall be drawn with the intent to favor or disfavor a political party or an incumbent

Districts shall not be drawn with the intent or result of denying or abridging the equal opportunity of racial or language minorities to participate in the political process or to diminish their ability to elect representatives of their choice

Districts shall consist of contiguous territory

Tier 2 Standards

Districts shall be as nearly equal in population as is practicable

Districts shall be compact

Districts shall, where feasible, utilize existing political and geographical boundaries

Constitutional Standards

Tier 2 Standard

Districts shall, where feasible, utilize existing political and geographical boundaries

What can make up an existing political and geographical boundary?

- County boundaries
- Municipal boundaries
- Major roads
- Waterways
- Railways

In the map drawing application, the **Reference Layers** functionality will assist you in assigning geography based on existing political and geographical boundaries. The **Boundary Analysis Report** will assist you in analyzing to what degree you have followed existing political and geographical boundaries when drawing a district.

Constitutional Standards

Tier 2 Standard

Districts shall be compact

What is Compactness?

- The Florida Supreme Court has defined “compactness” as “geographical compactness” which begins by looking at the “shape of the district.”

How do you measure Compactness?

- Reock Score
- Convex-Hull Score
- Polsby Popper Score

In the map drawing application, the **Compactness Test** functionality will allow you to easily compare compactness scores as you draw.

Compactness Scores

Reock Score

$$R = \frac{A_D}{A_{MBC}}$$



The ratio of the area of the district (A_D) to the area of a minimum bounding circle (A_{MBC}) that encloses the district's geometry. A district's Reock Score falls within the range of [0,1] and a score closer to 1 indicates a more compact district.

Convex-Hull Score

$$CH = \frac{A_D}{A_{MCP}}$$



The ratio of the area of the district (A_D) to the area of the minimum convex polygon (A_{MCP}) that can enclose the district's geometry. A district's Convex-Hull score falls within the range of [0,1] and a score closer to 1 indicates a more compact district.

Polsby Popper Score

$$PP = 4\pi \times \frac{A_D}{P_D^2}$$



The ratio of the area of the district (A_D) to the area of a circle whose circumference is equal to the perimeter of the district (P_D). A district's Polsby-Popper score falls within the range of [0,1] and a score closer to 1 indicates a more compact district.



Source: <https://fisherzachary.github.io/public/r-output.html>

Constitutional Standards

Tier 2 Standard

Districts shall be as nearly equal in population as is practicable

In the map drawing application, the **Identify Tool** allows you to select individual pieces of geography and see the population associated with it. Additionally, the **Themes Tool** applies color-coded statistics to individual pieces of geography.

Constitutional Standards

Tier 1 Standard

Districts shall consist of
contiguous territory

In the map drawing application, the **Check Integrity** functionality will allow you to see if there are any non-contiguous assignments in your map.

Constitutional Standards

Tier 1 Standard

No apportionment plan or individual district shall be drawn with the intent to favor or disfavor a political party or an incumbent

Districts shall not be drawn with the intent or result of denying or abridging the equal opportunity of racial or language minorities to participate in the political process or to diminish their ability to elect representatives of their choice

In the map drawing application, the **Reports** allow you to conduct a “functional analysis” by analyzing a drawn district to ensure it does not diminish an racial or language minority group’s ability to elect a representative of their choice.

The elections dataset included in the Reports, which are used to conduct part of a functional analysis, includes Voter Registration, Voter Turnout, and Election Results from statewide races, from 2012-2020.



State Legislative Redistricting Subcommittee

Rep. Cord Byrd, Chair

Redistricting Committee Staff

850-717-5234

RedistrictingCommittee@myfloridahouse.gov