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# Redistricting Committee

**Tuesday, October 12, 2021  
1:30 PM – 3:00 PM  
212 Knott Bldg.**

**Meeting Packet**

EXHIBIT

**J30**

**Chris Sprowls  
Speaker**

**Thomas J. Leek  
Chair**

## Committee Meeting Notice

### HOUSE OF REPRESENTATIVES

#### Redistricting Committee

**Start Date and Time:** Tuesday, October 12, 2021 01:30 pm  
**End Date and Time:** Tuesday, October 12, 2021 03:00 pm  
**Location:** Webster Hall (212 Knott)  
**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](http://www.myfloridahouse.gov).

**NOTICE FINALIZED on 10/05/2021 4:20PM by Ellerkamp.Donna**

# Florida House of Representatives Redistricting Committee

Chair Thomas J. Leek  
*October 12, 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.



## Redistricting Committee

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