LAKE & SUMTER COUNTIES
Year 2050 Highway Capacity Analysis

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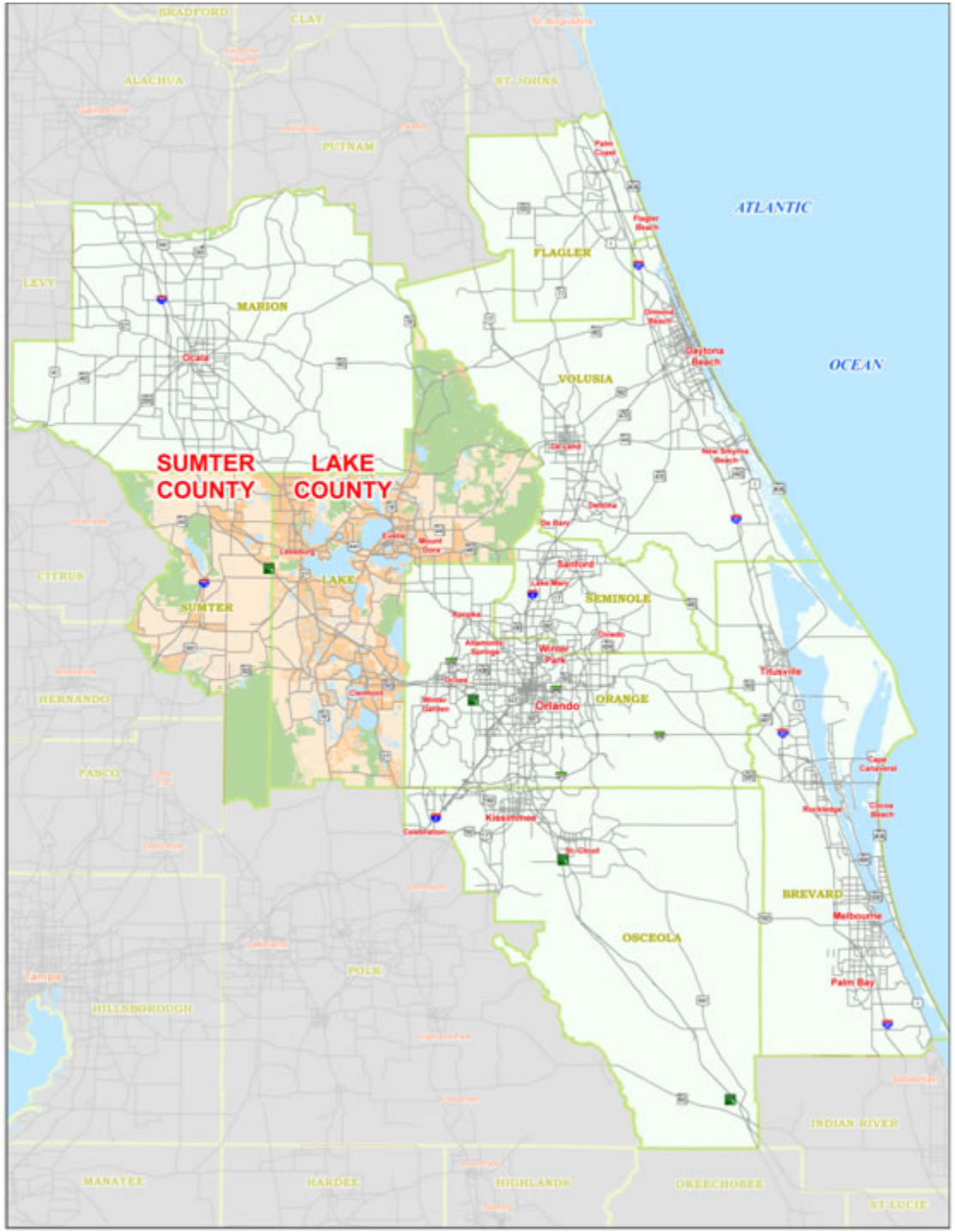
- Purpose
  - Evaluate existing roadway conditions
    - Year 2006 – FDOT traffic counts
  - Based on the growth, project where we will be if we grew the way we are growing today, and evaluate traffic conditions for:
    - Year 2025 - using travel demand forecasting model
    - Year 2050 – model and “How Shall We Grow” concept
  - These maps have been produced to educate public on transportation needs and to discuss how we should face the future transportation challenges.

Note: These maps are conceptual and should not be used for the purpose of any operational analysis.



Location Map

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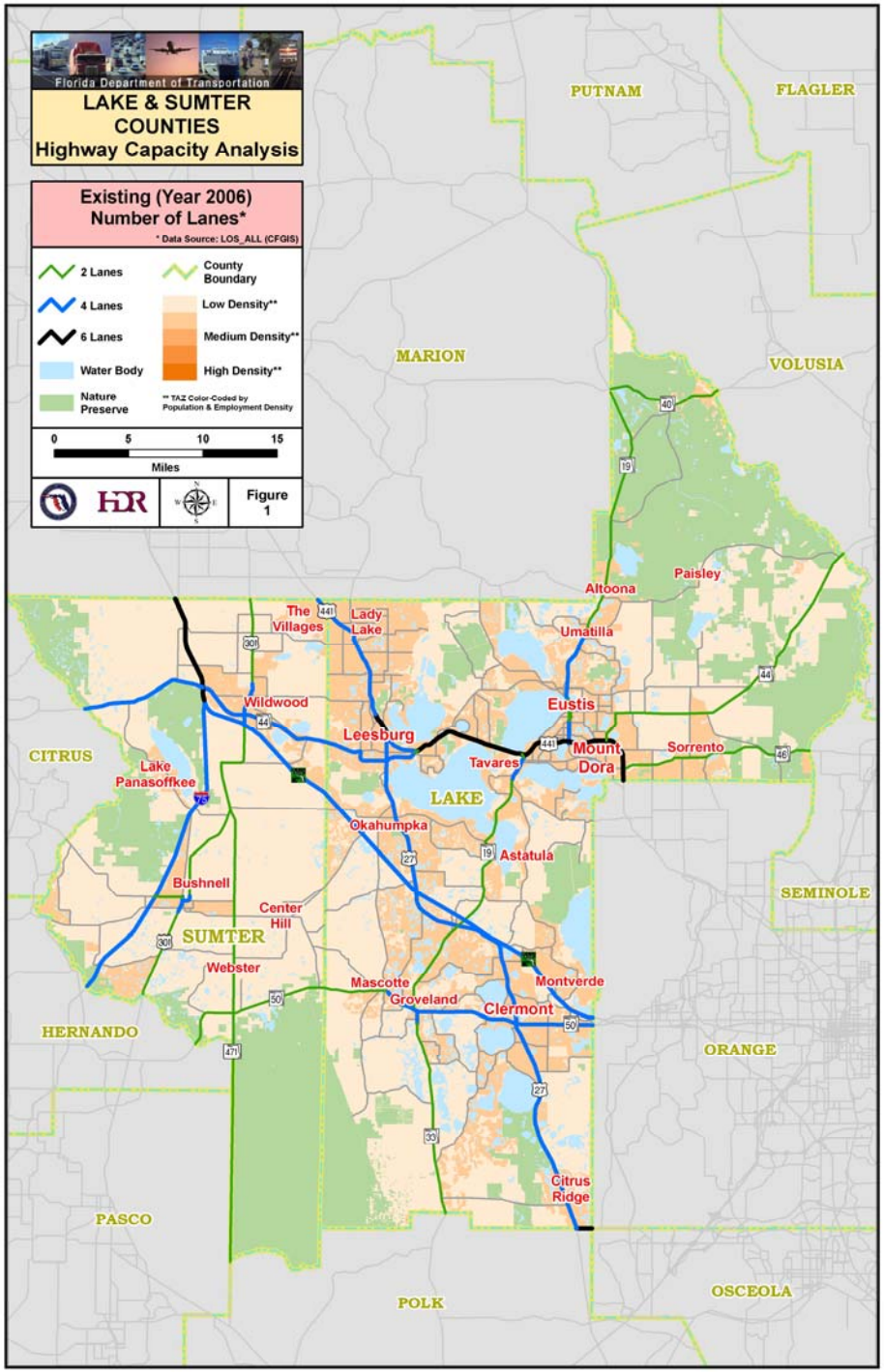
- How to read these maps

  You will see three different maps for each of the three analysis years (2006, 2025, and 2050). Total of nine maps

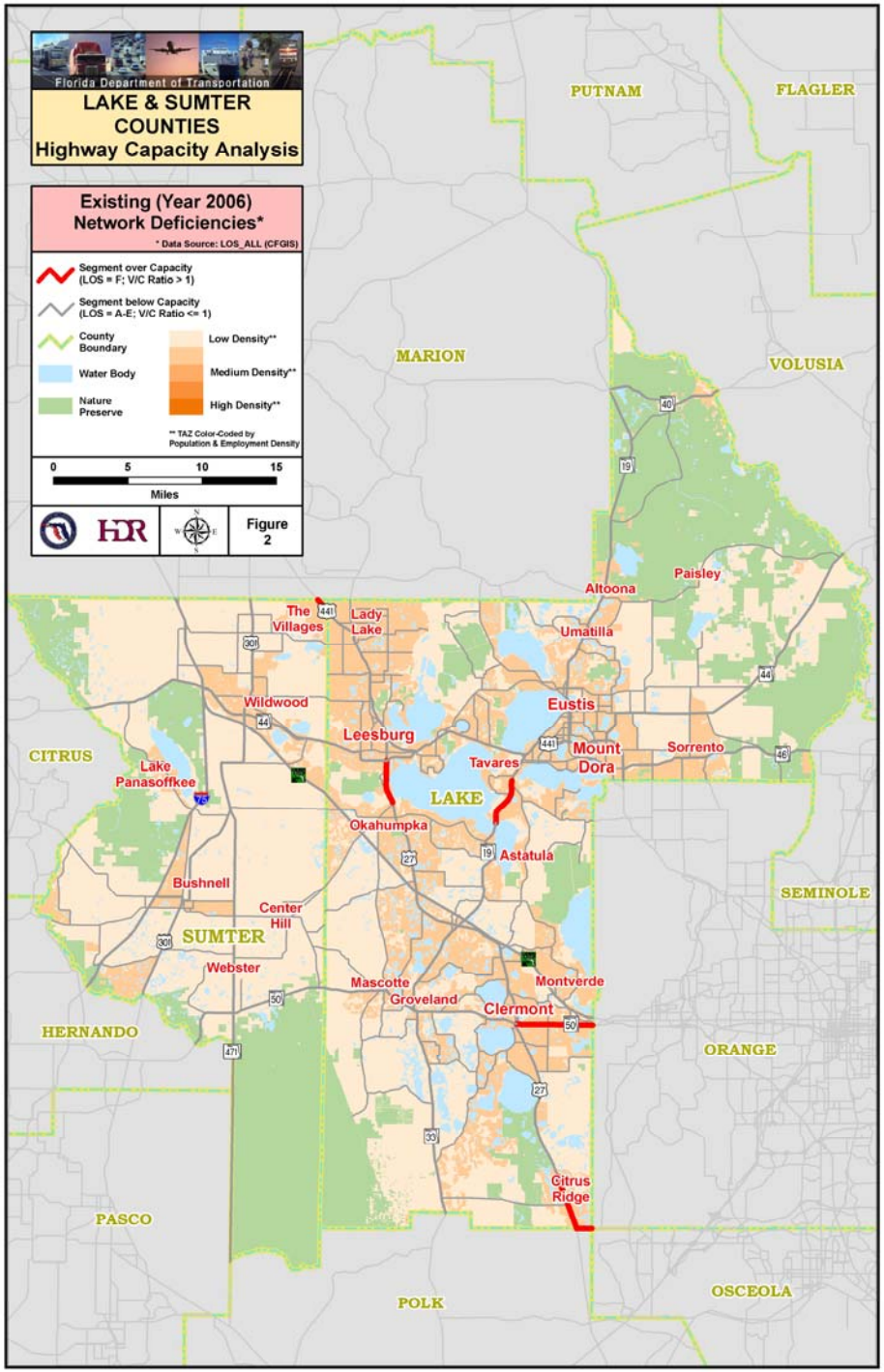
  - The “Number of Lanes” maps show the expected network for that year.
  - The “Network Deficiencies” maps show what roadways will operate over capacity for that year (in red).
  - The “Required Improvements” maps show how many additional lanes will be needed and how much it will cost to meet the needs.

  Note: All the maps are focused on Lake and Sumter Counties



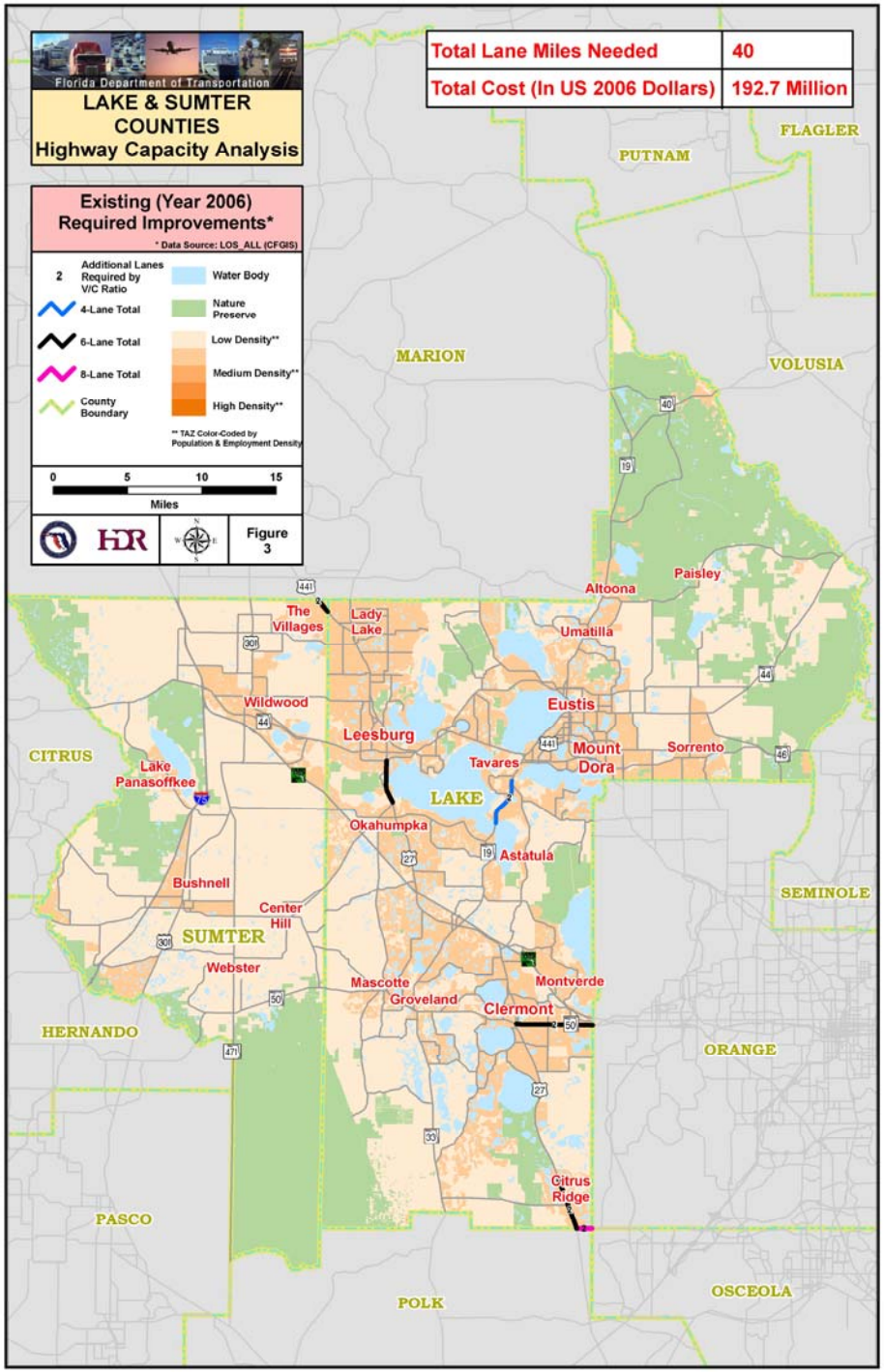
Existing (2006) Number of Lanes

- This is what we have out there today (Year 2006).
- The color of the roadway represents number of lanes.
- The Green color stands for two (2) lanes. The Blue color stands for four (4) lanes. The Black color means six (6) lanes. The Pink color stands for eight (8) lanes.
- The background represents the land use density. Light Beige color stands for low density, Peach color stands for medium density, and the Orange color stands for high density.
- Let us use as example: US 441 (from Mount Dora to Leesburg) is black which means it is six lanes today.



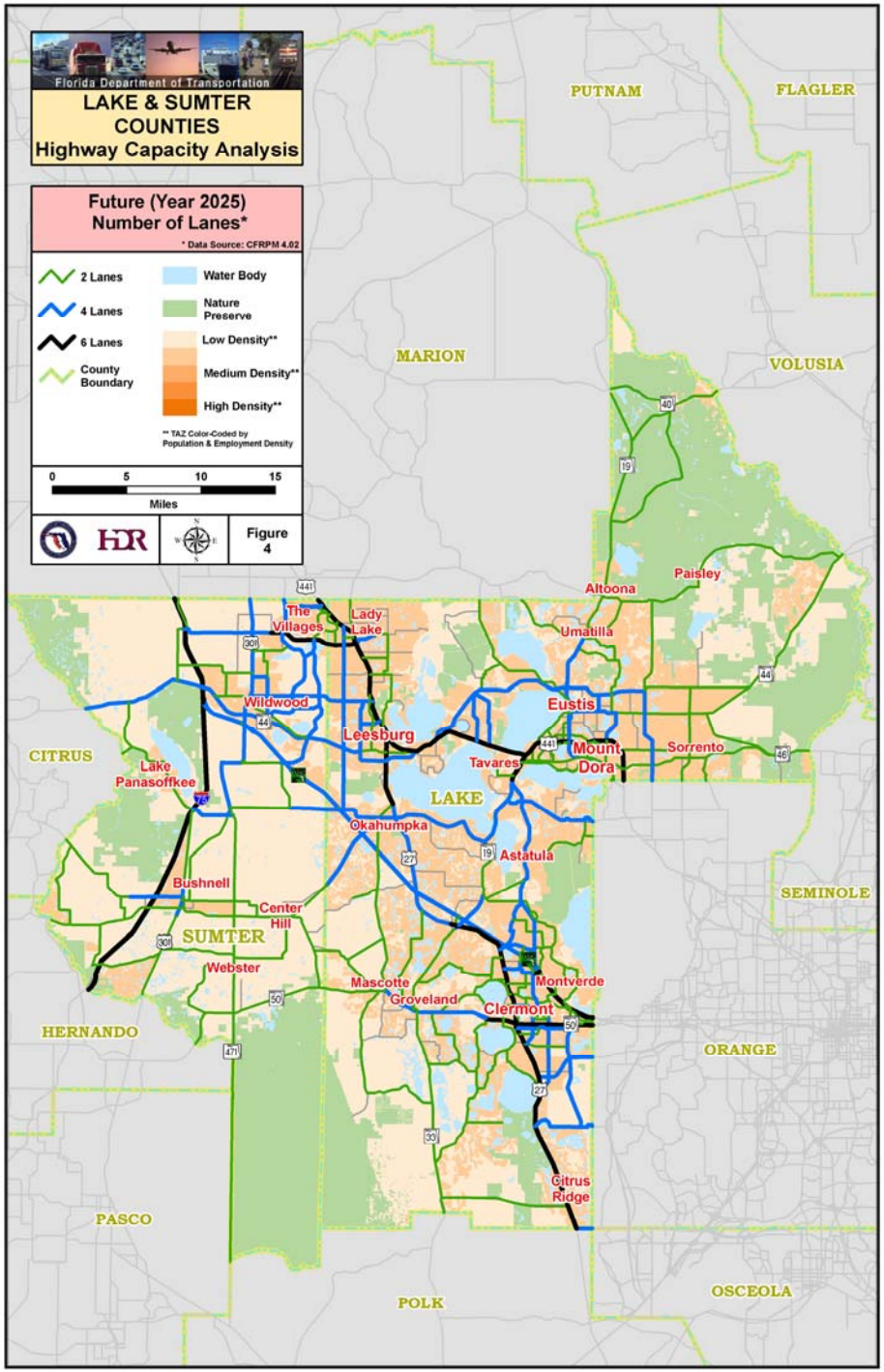
Existing (2006) Network Deficiencies

- This map shows only the roads that are failing today (in red). These roads are over capacity - (V/C ratio > 1) - LOS “F”.
- Our example: US 441 is not red on this map, which means it is not failing today.



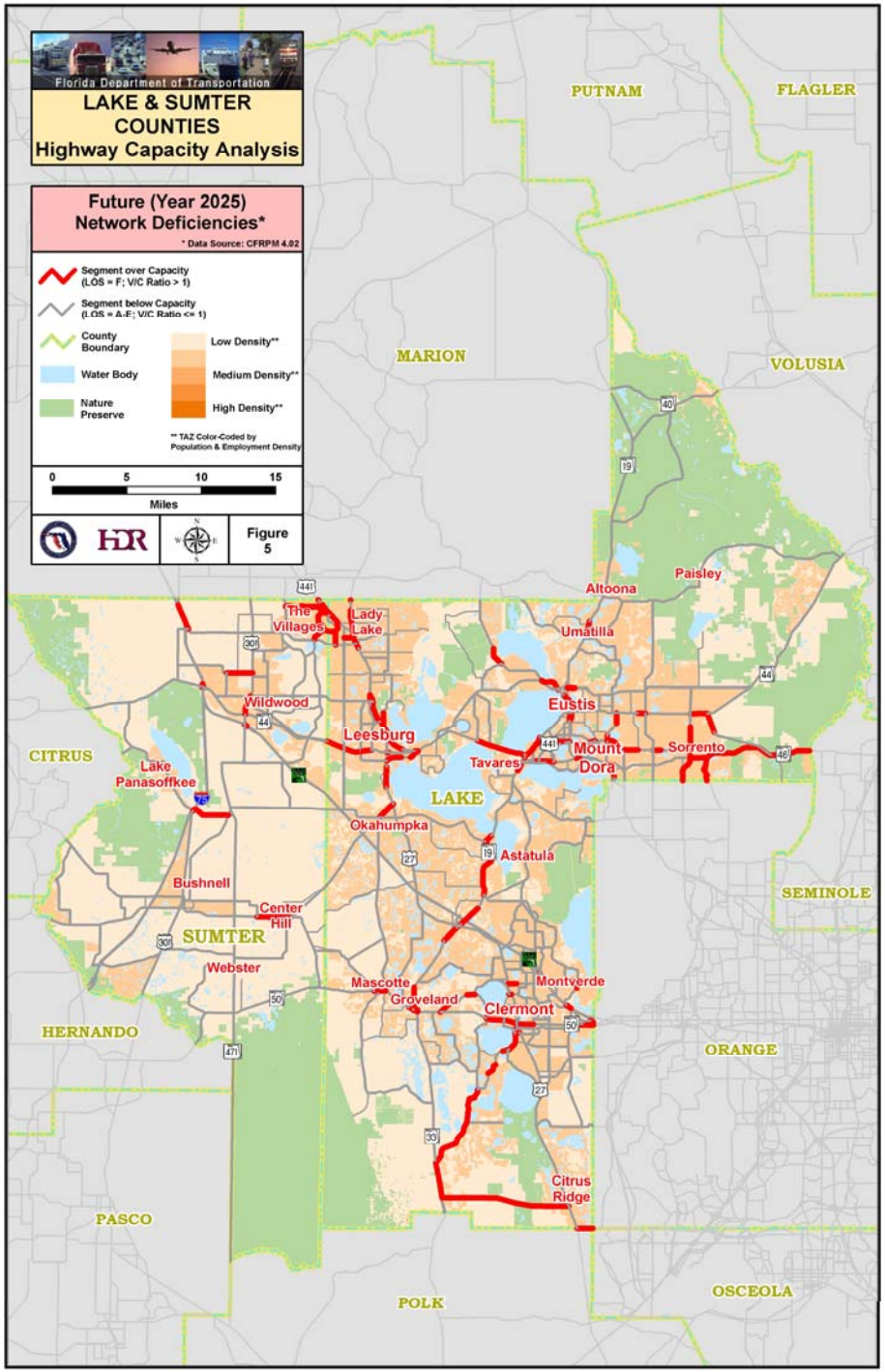
Existing (2006) Required Improvements

- This map shows the additional capacity (number of lanes) needed to meet our demand.
- Note: This is not what FDOT is proposing to build. This is what is needed to operate without congestion.
- The color of the road shows what is ultimately needed, and the digit inside is the number of additional lanes needed to meet the demand. This map also shows the total number of lane miles needed and the cost associated with it.
- Our example: Since US 441 was not on the previous maps (as it was not failing), it will not be on this map.



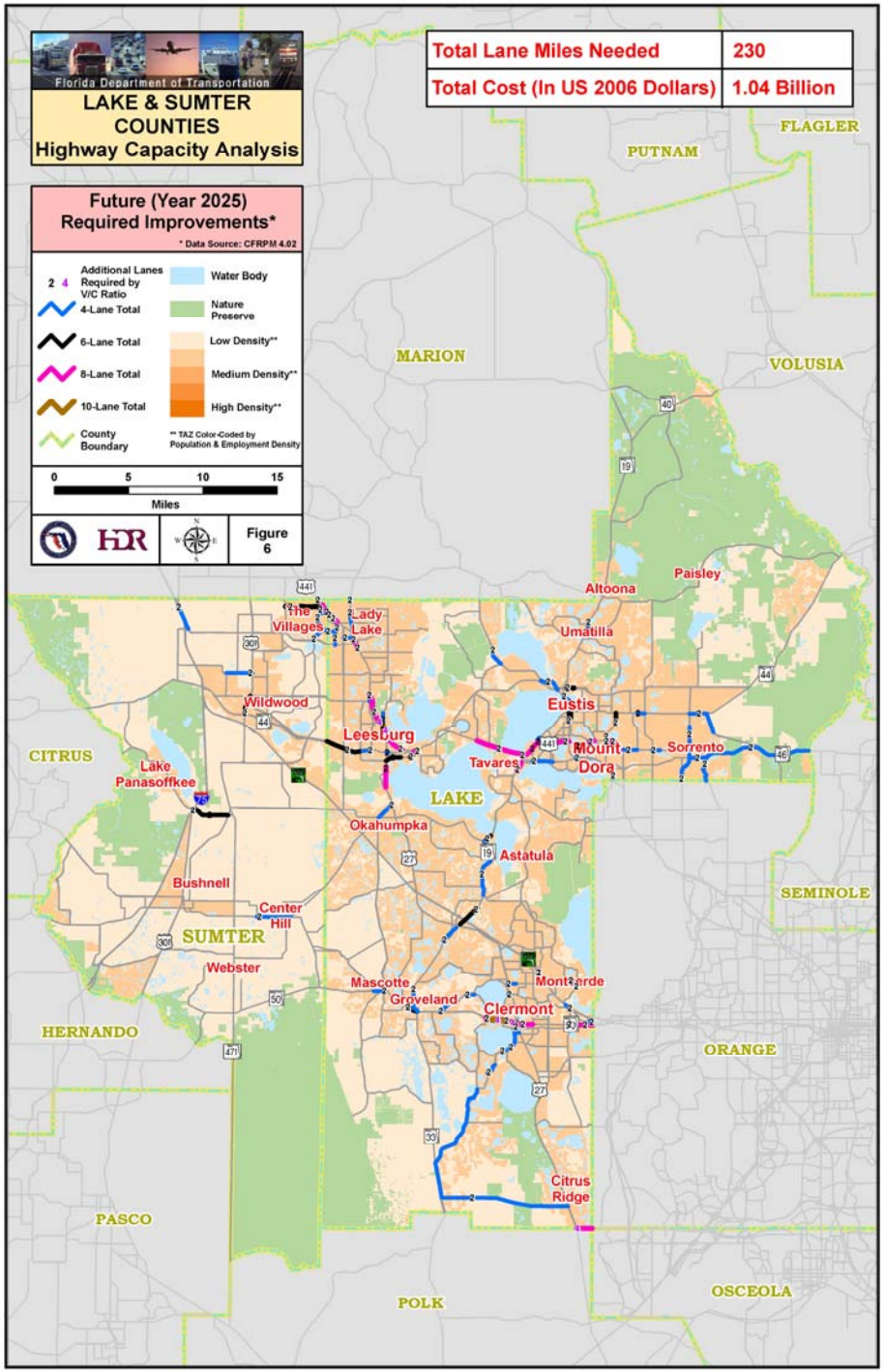
Future (2025) Number of Lanes

- For the year 2025, everything is based on the latest adopted MPO LRTP cost feasible plan. This map shows the roadways as planned in the regional travel demand forecasting model.
- Our example: US 441 is still black in the year 2025, which means it is still planned as six (6) lanes. Now let us see if it fails with six lanes.



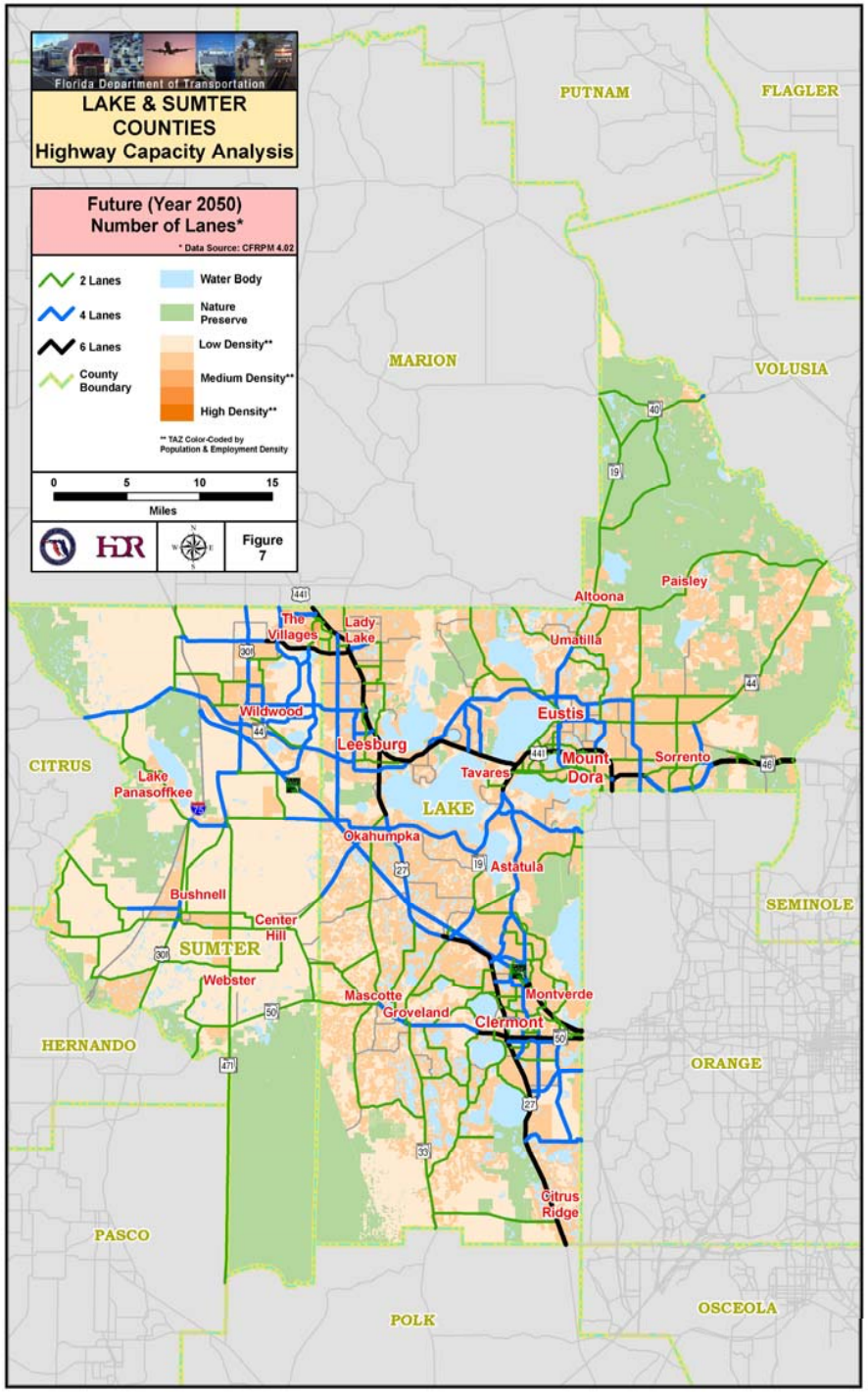
Future (2025) Network Deficiencies

- All the red roads are failing.
- Our example: Segments of US 441 are red, mean failing in the year 2025. Let us see how many additional lanes the failing segments need.



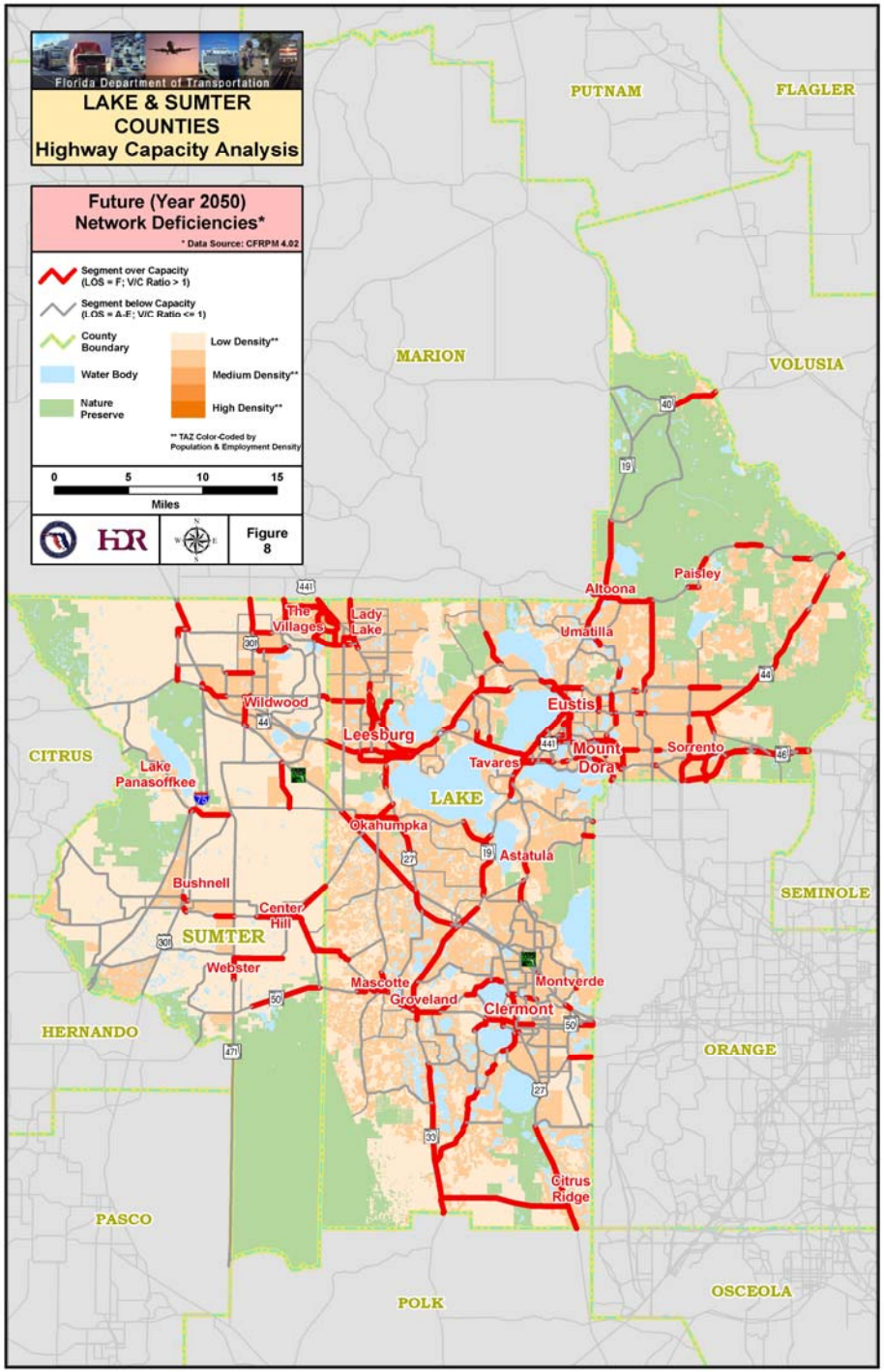
Future (2025) Required Improvements

- The color of the roads shows the total number of lanes needed, and the digit inside shows the number of additional lanes.
- Our example: Some failing segments of US 441 show a need for eight (8) lanes, which means two (2) additional lanes.
- Again, this is not what we are planning on building. This is only to show what the need is out there.



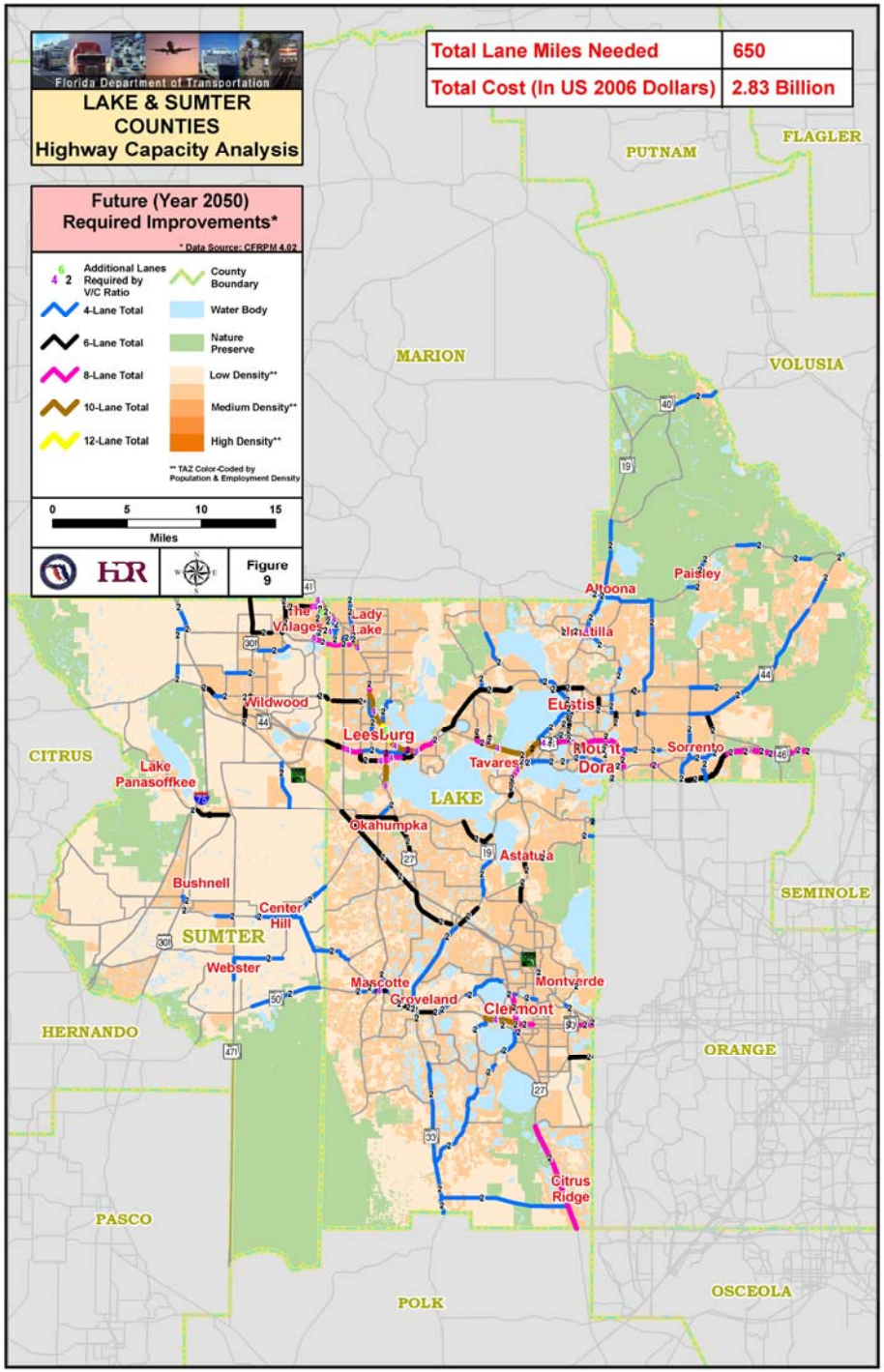
Future (2050) Number of Lanes

- Now let us look at the year 2050 network. The land use and roadway information used to develop these maps is from the “Trend 1” of “How Shall We Grow” from “myregion.org”.
- Our example: US 441 is still black, which means there are no plans to make it more than six (6) lanes even in the year 2050. Let us see what happens to it in the next map.



Future (2050) Network Deficiencies

- All the roads in red color are failing.
- Our example: More segments of US 441 are failing as compared to the year 2025. Let us see how many additional lanes these segments need.



Future (2050) Required Improvements

- Again, the color represents the total number of lanes, and the digit inside is the additional lanes needed.
- Our example: Some segments of US 441 (in brown) showing a need for ten (10) lanes.
- The question is do we want to build all these lanes in our community. If not how do we meet these requirements?

Conclusion

- FDOT has conducted this analysis to show the local governments and the public where we are going if we continue to grow the way we are growing today.
- Will we ever be able to build this much infrastructure? Do we even want that many roads or lanes through our communities?
- We need to evaluate our system and look at other transportation alternatives.
- A good transportation system starts with a good land use plan. We need to think about transit oriented and transit friendly development when we are approving new development in our community. Ask the developers to focus on transit services.
- We also need to educate ourselves and public about use of other modes of transportation, such as buses, bikes, etc., which means as a transportation agency, we need to provide those facilities to promote transit.
- We also need to focus on other transportation management strategies, such as telecommuting, flex work hours, car pooling, etc. because we are never going to have enough right-of-way or the revenue to have all the roads we need.