APPENDIX K

Evacuation Roadway Network

K. EVACUATION ROADWAY NETWORK

As discussed in Section 1.3, a link-node analysis network was constructed to model the roadway network within the study area. Figure K-1 provides an overview of the link-node analysis network. The figure has been divided up into 49 more detailed figures (Figure K-2 through Figure K-50) which show each of the links and nodes in the network.

The analysis network was calibrated using the observations made during the field survey conducted in May 2011. Table K-1 lists the characteristics of each roadway section modeled in the ETE analysis. Each link is identified by its road name and the upstream and downstream node numbers. The geographic location of each link can be observed by referencing the map (Figure K-2 through Figure K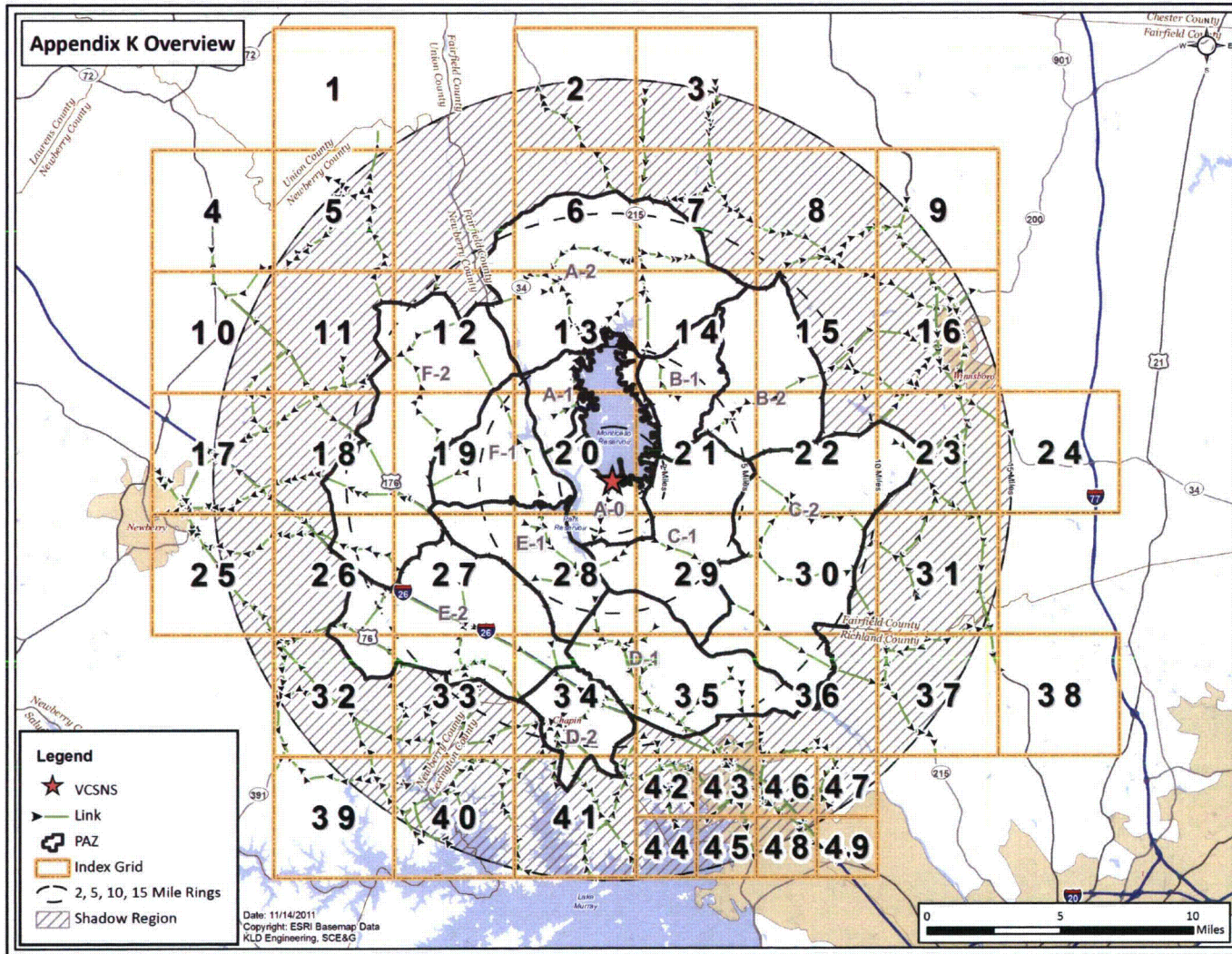-50) corresponding to the grid number provided in Table K-1. The roadway identified in Table K-1 is based on the following criteria:

- Freeway: limited access highway, 2 or more lanes in each direction, high free flow speeds
- Freeway ramp: ramp on to or off of a limited access highway
- Major arterial: 3 or more lanes in each direction
- Minor arterial: 2 or more lanes in each direction
- Collector: single lane in each direction
- Local roadways: single lane in each direction, local roads with low free flow speeds

The term, "No. of Lanes" in Table K-1 identifies the number of lanes that extend throughout the length of the link. Many links have additional lanes on the immediate approach to an intersection (turn pockets); these have been recorded and entered into the input stream for the DYNEV II System.

As discussed in Section 1.3, lane width and shoulder width were not physically measured during the road survey. Rather, estimates of these measures were based on visual observations and recorded images.

Table K-2 identifies each node in the network that is controlled and the type of control (stop sign, yield sign, pre-timed signal, actuated signal, traffic control point) at that node. Uncontrolled nodes are not included in Table K-2. The geographic location of each node can be observed by referencing the map (Figure K-2 through Figure K-50) corresponding to the grip number provided in Table K-2.
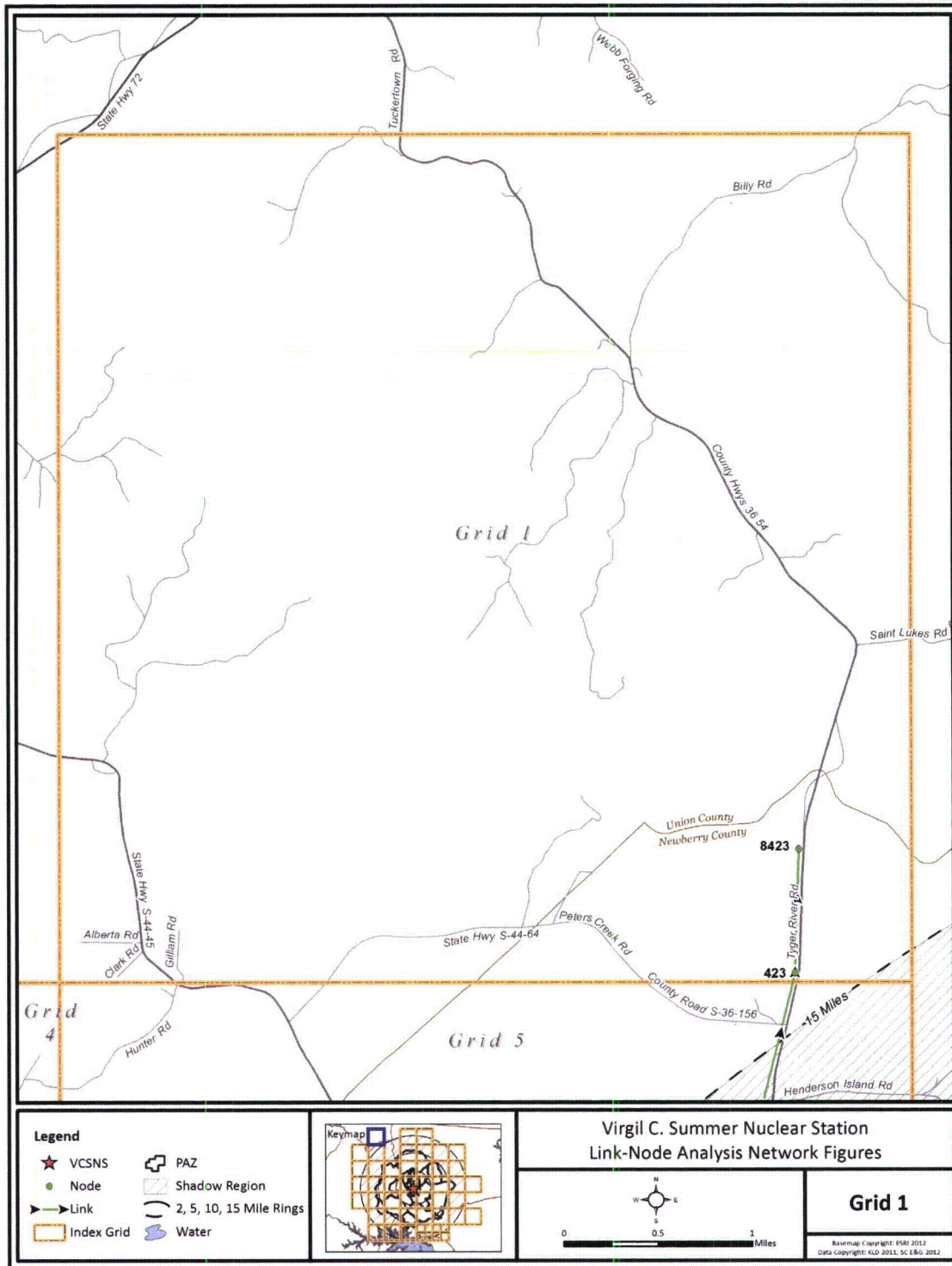
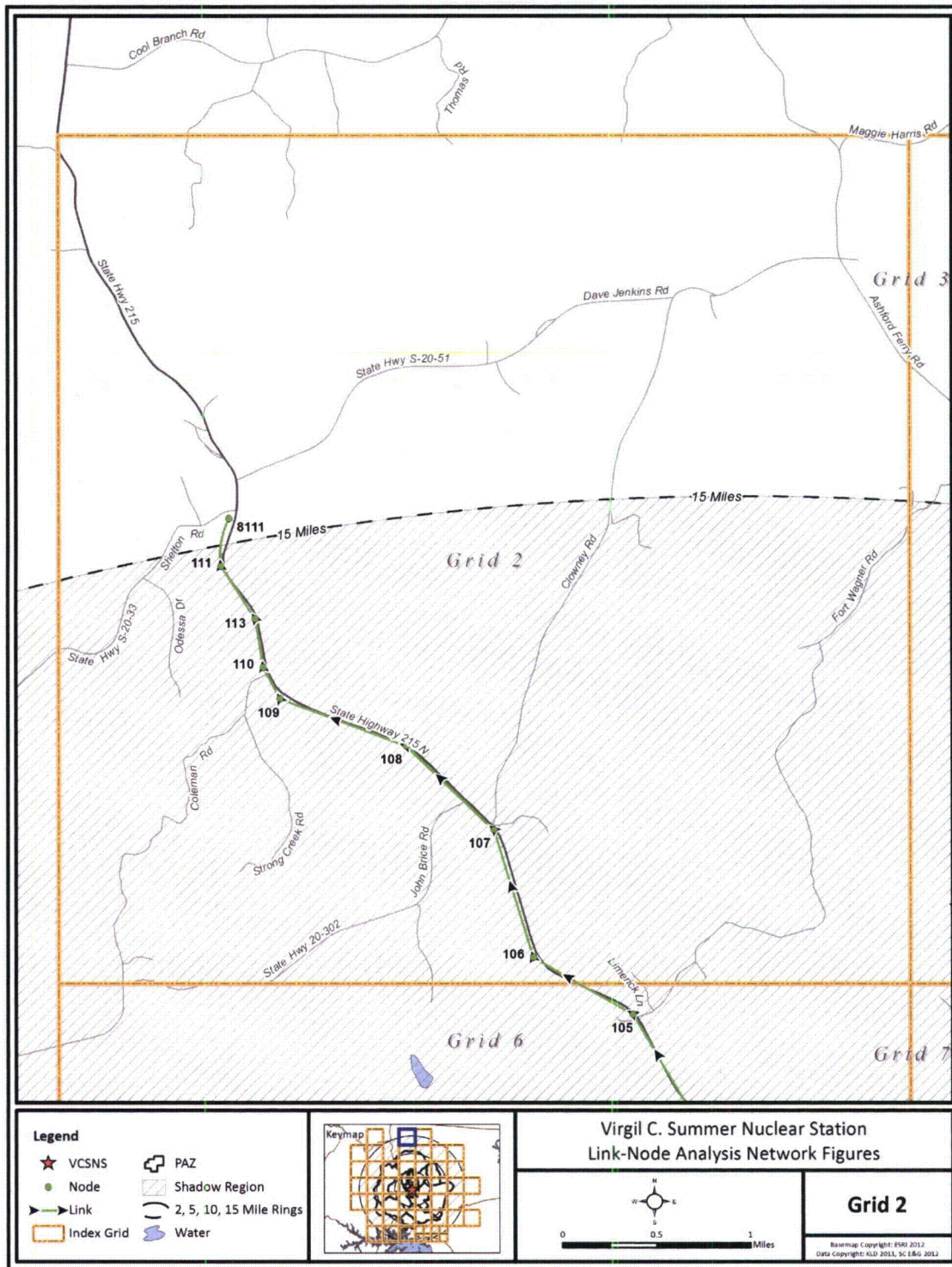**Figure K-1. Overview of Link Node Analysis**

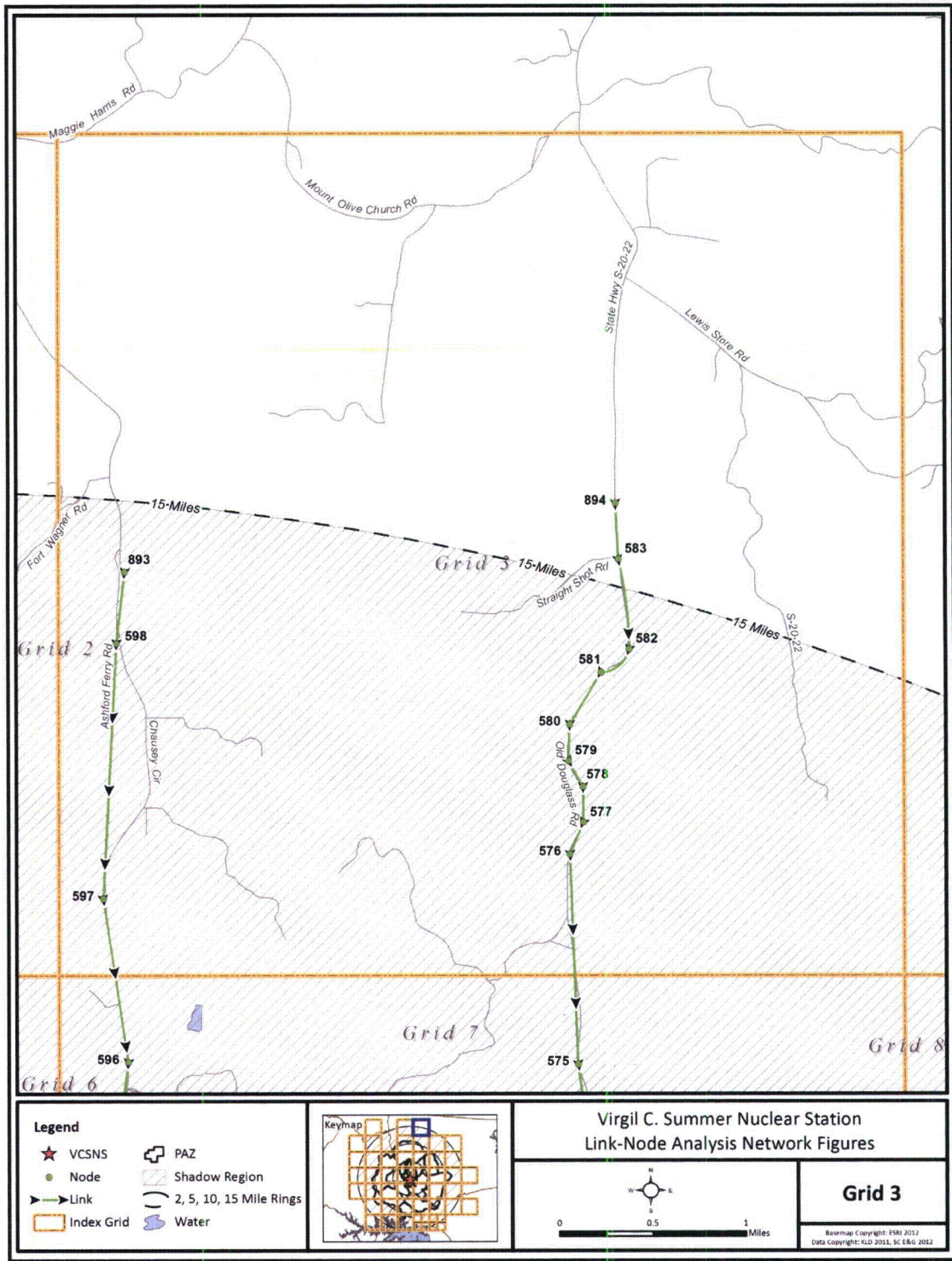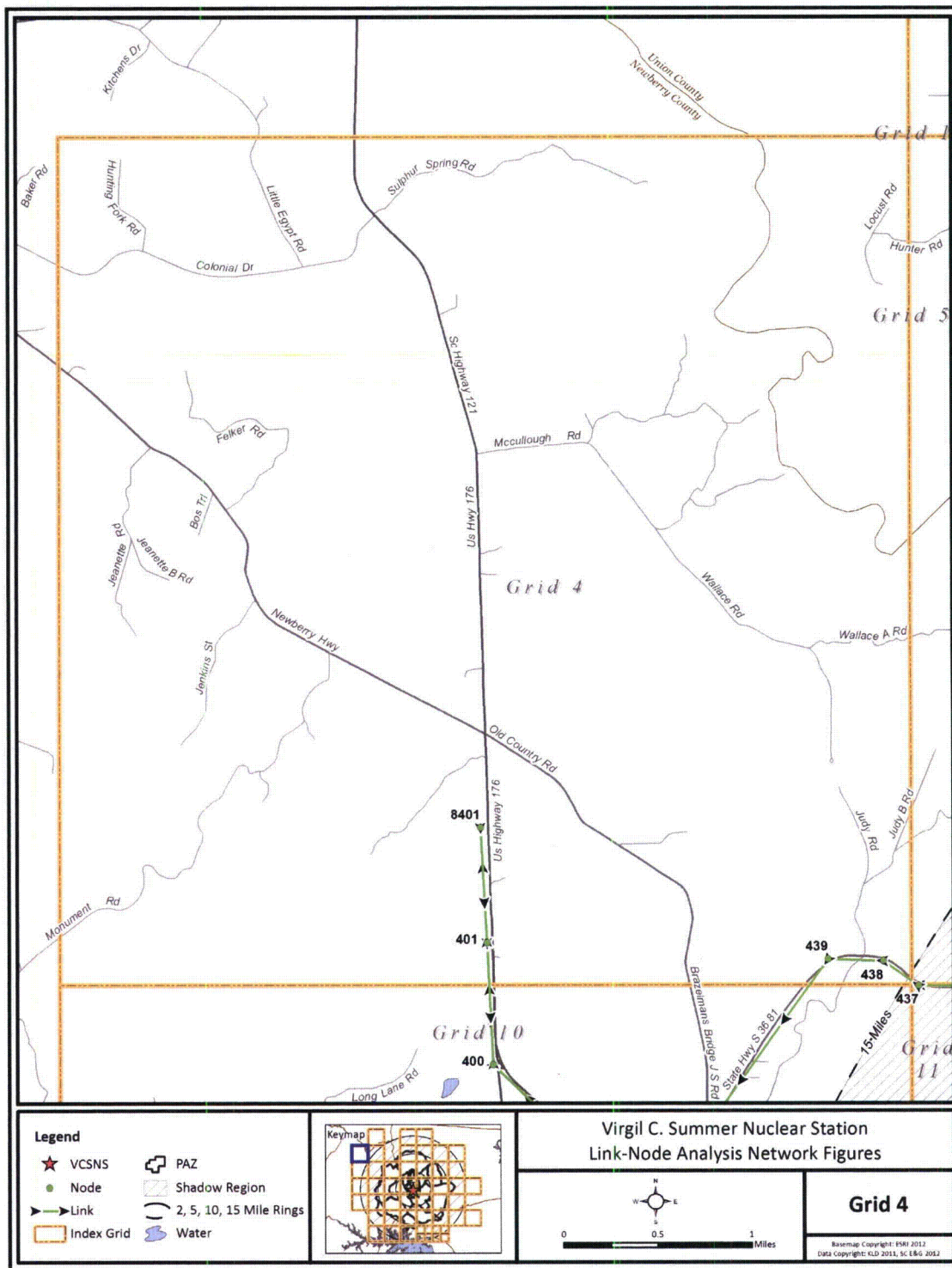**Figure K-2. Grid 1**
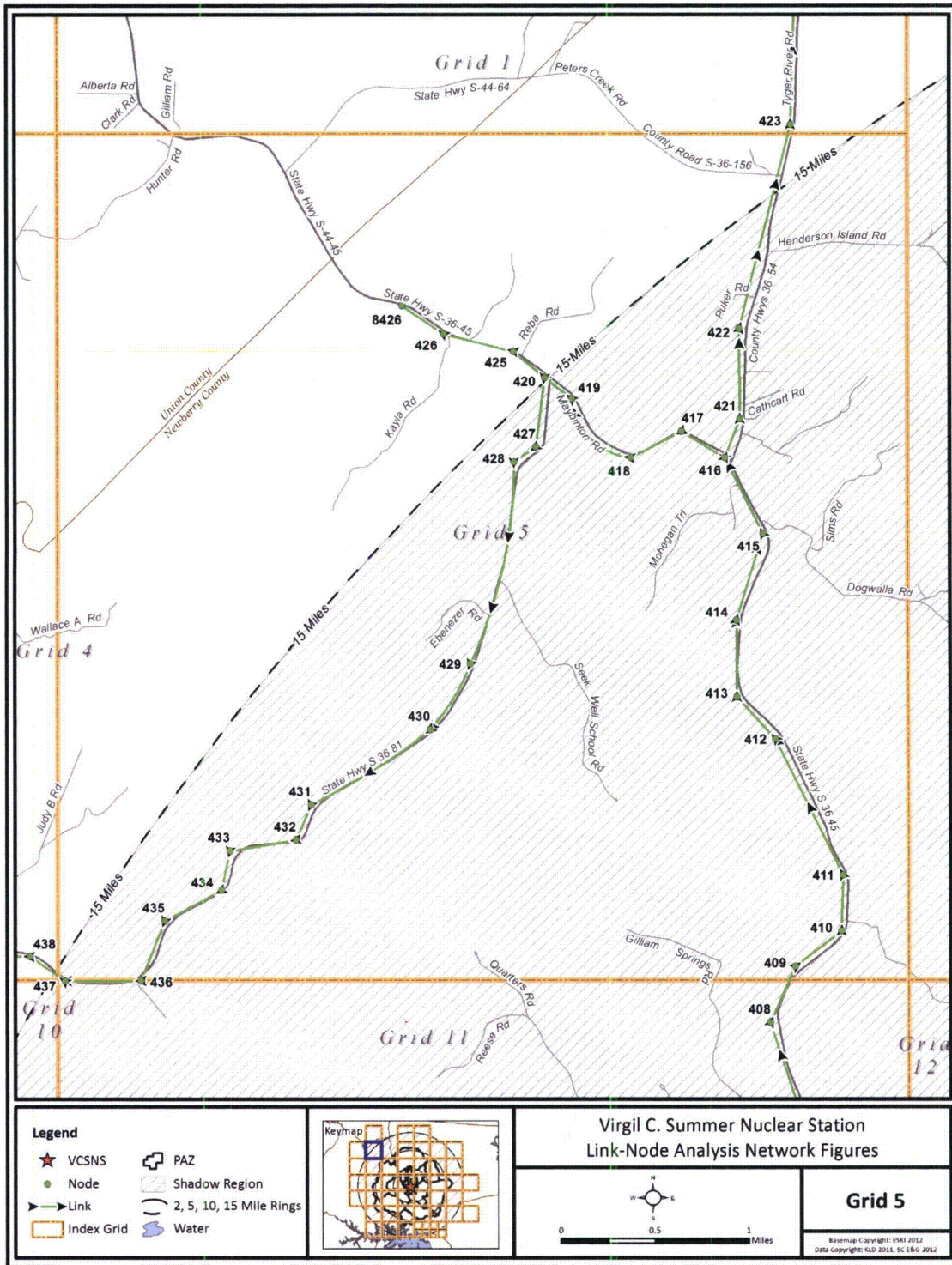
Figure K-3. Grid 2

Figure K-4. Grid 3
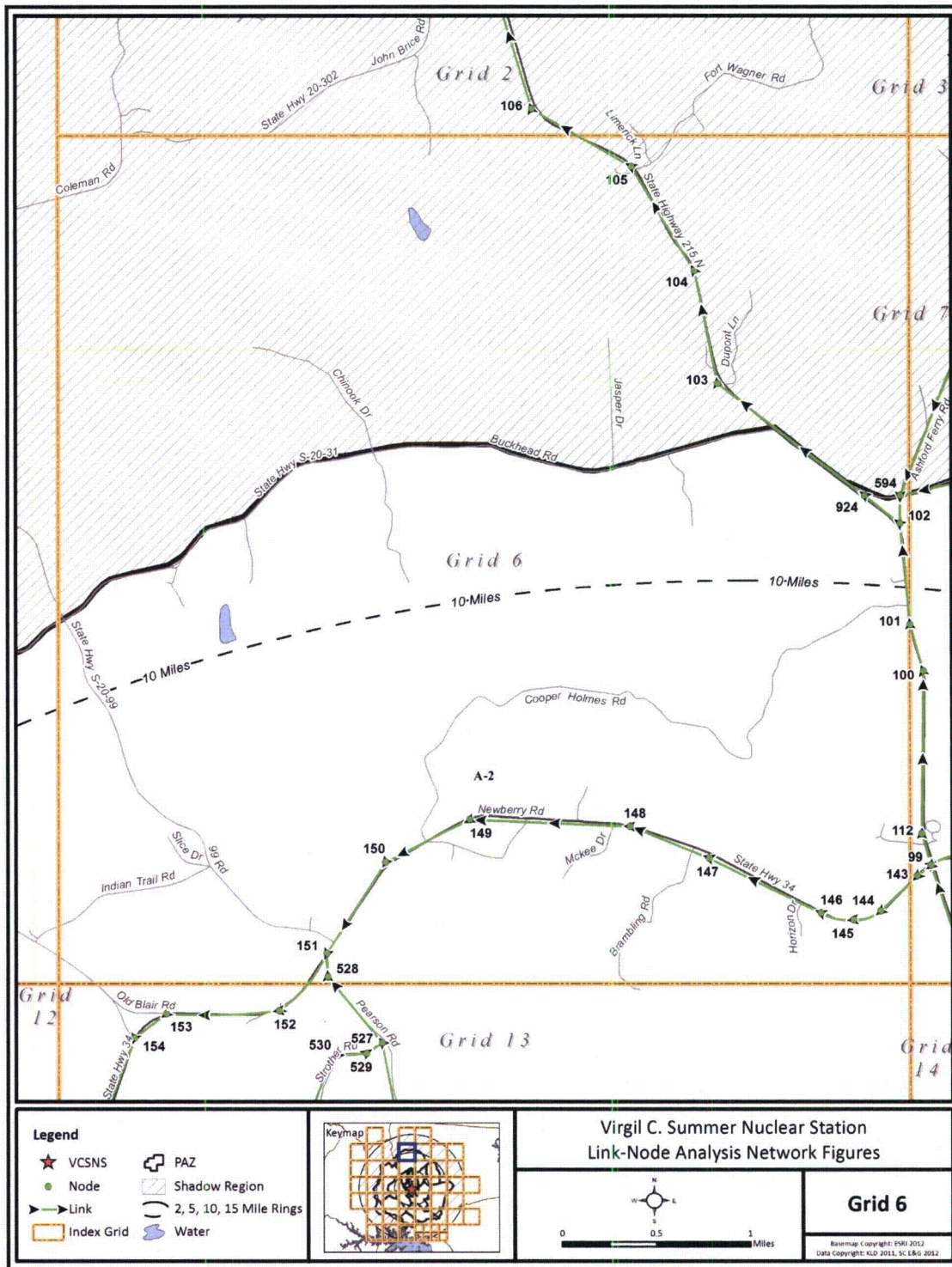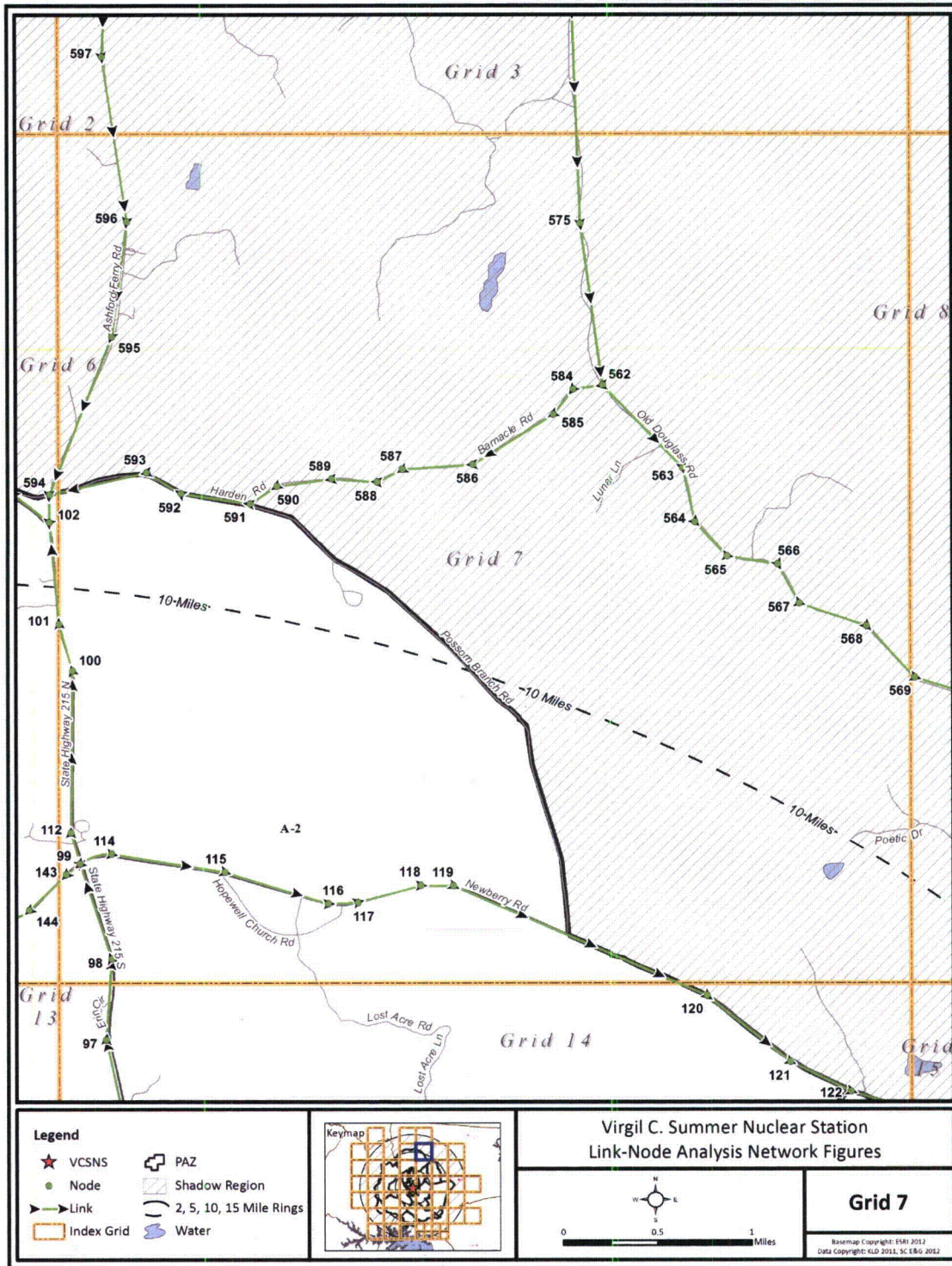
Figure K-5. Grid 4
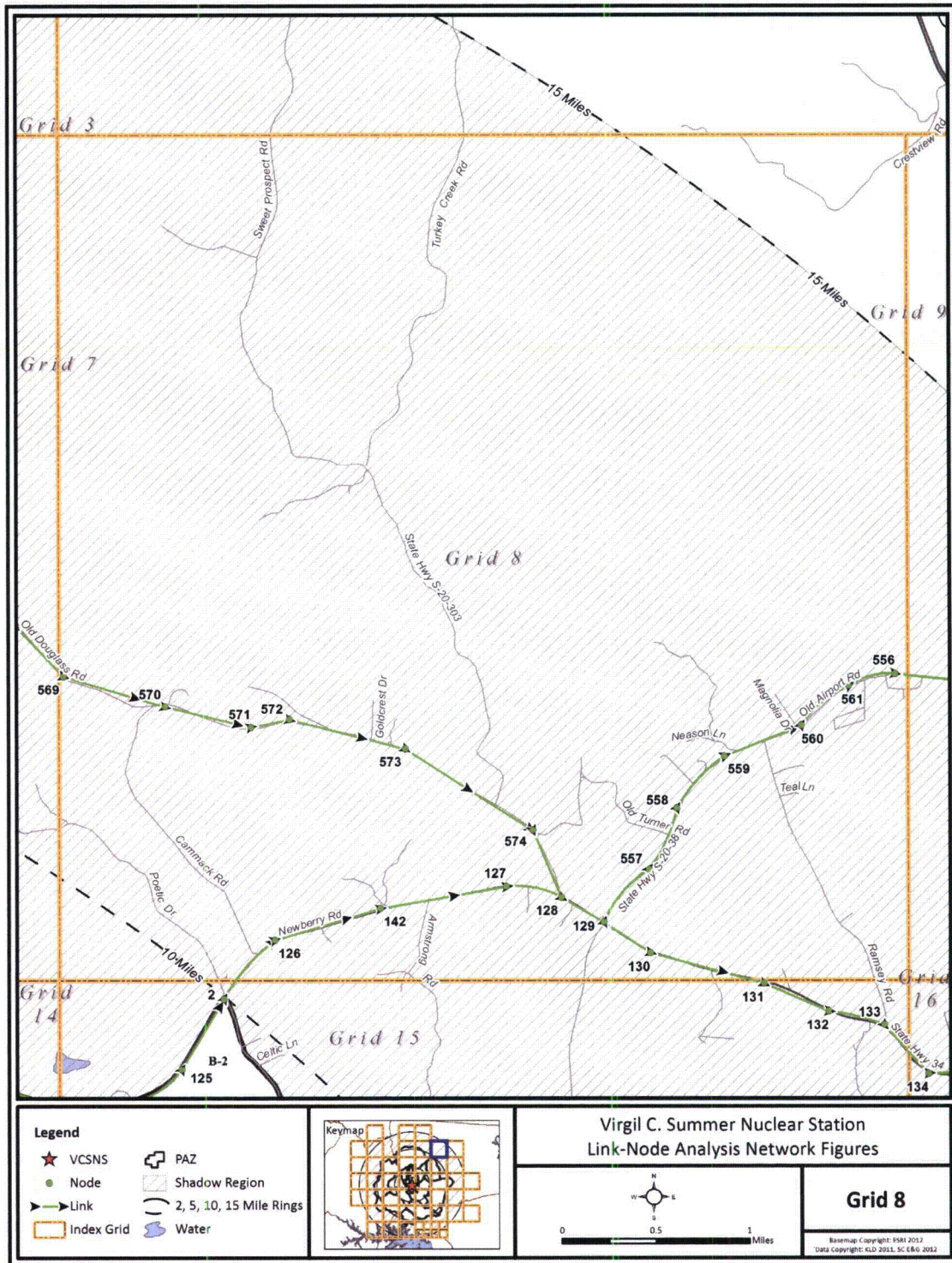
Figure K-6. Grid 5

Figure K-7. Grid 6

Figure K-8. Grid 7

Figure K-9. Grid 8

Figure K-10. Grid 9
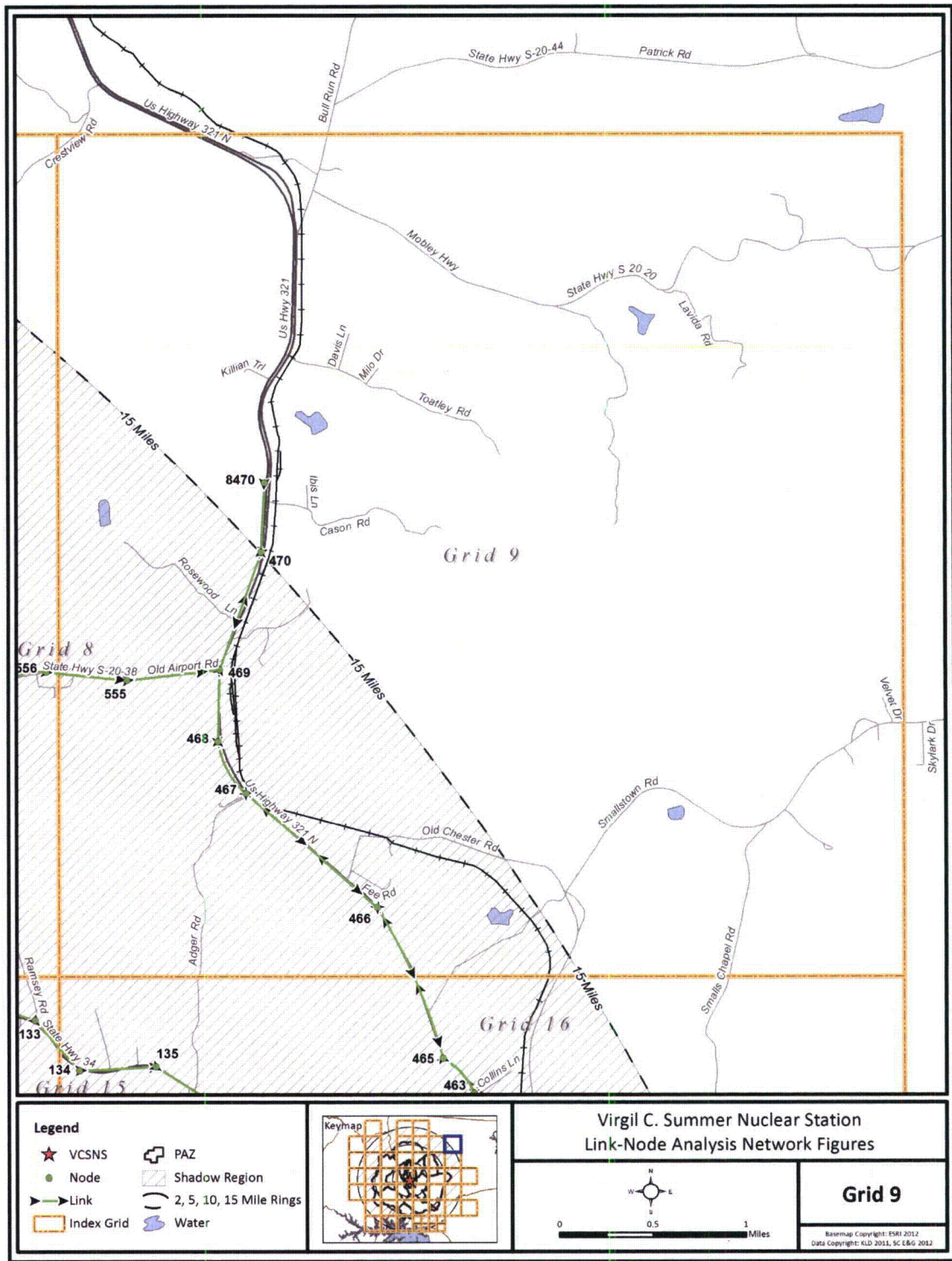
Figure K-11. Grid 10

Figure K-12. Grid 11

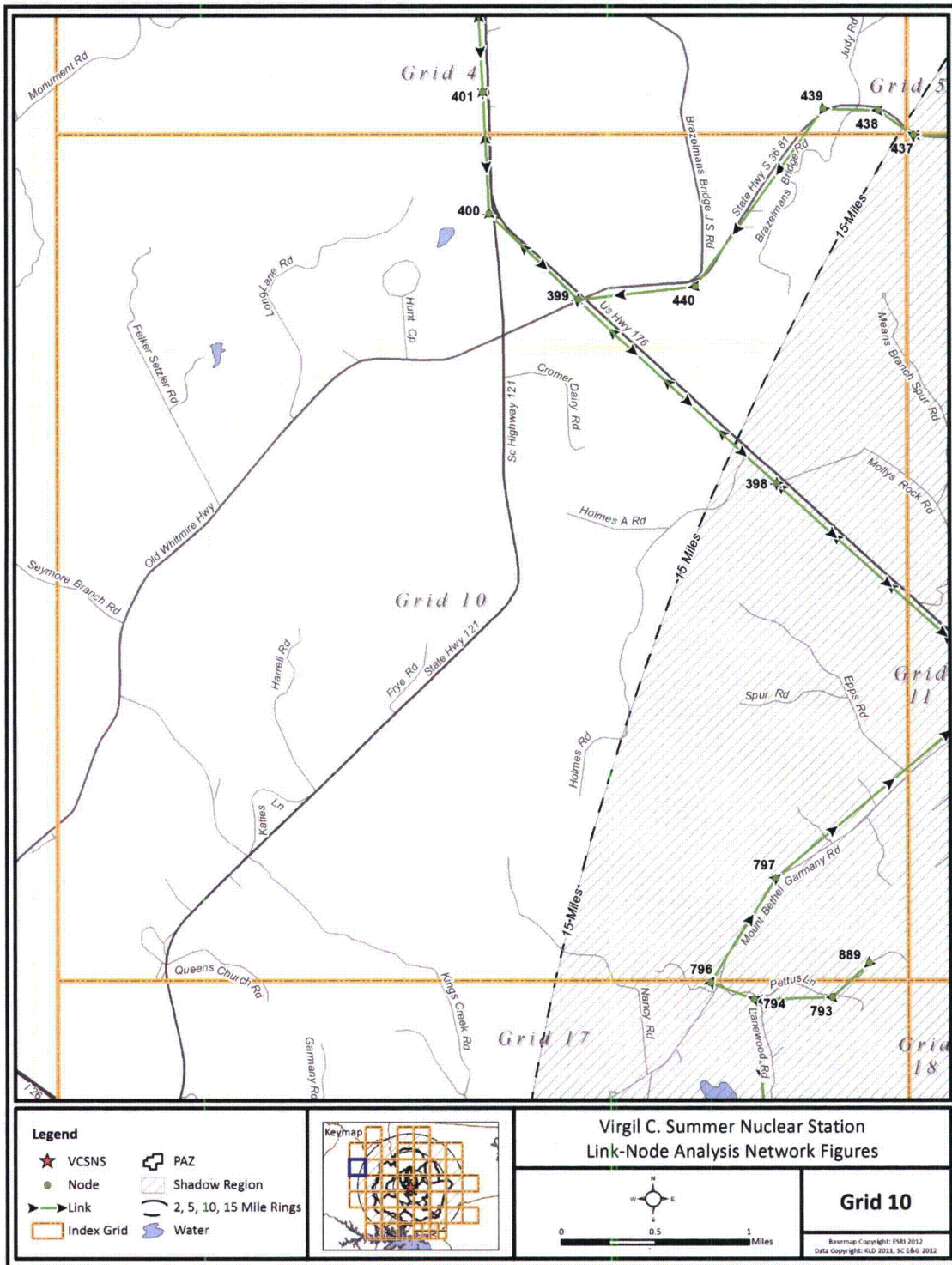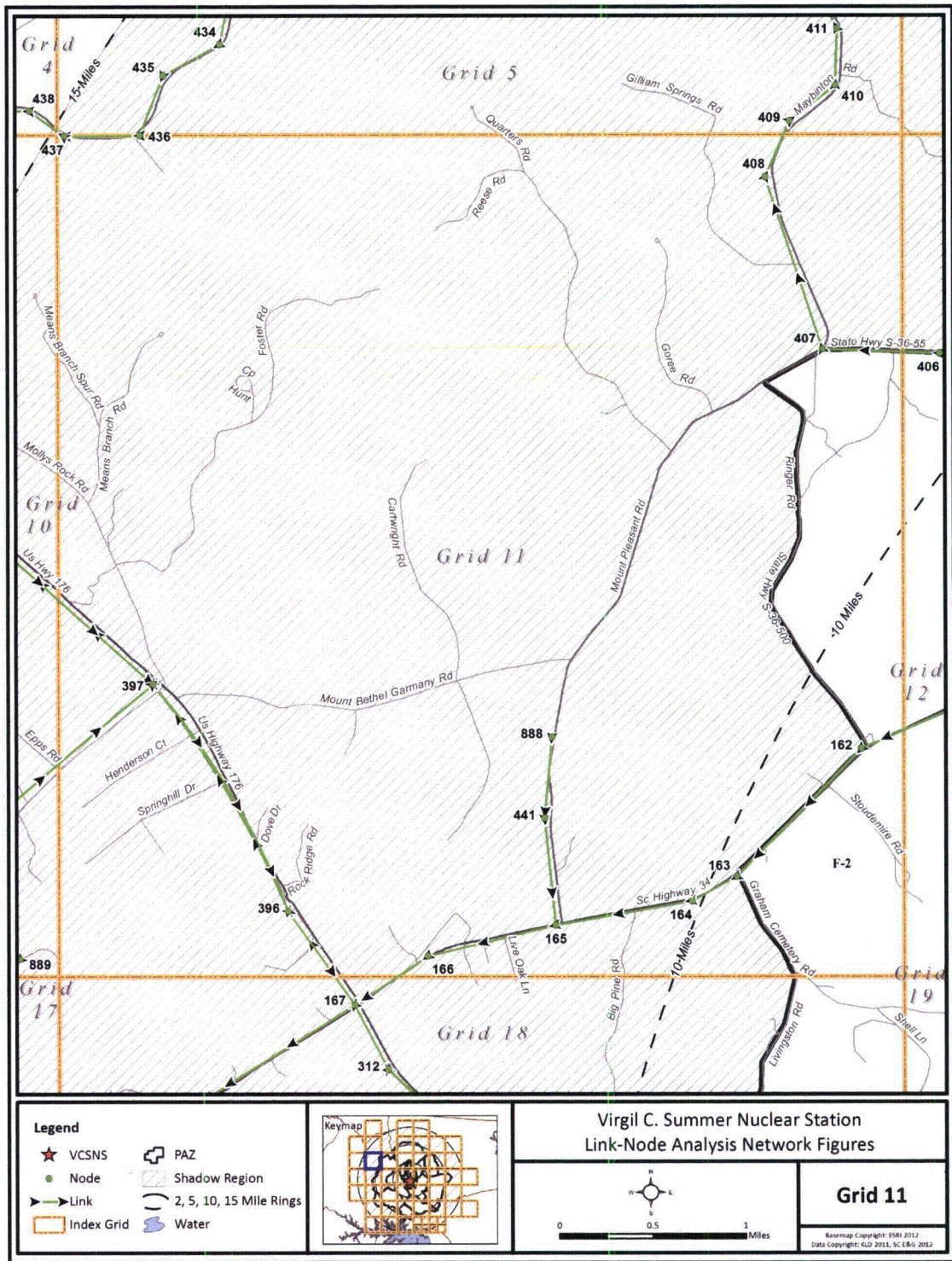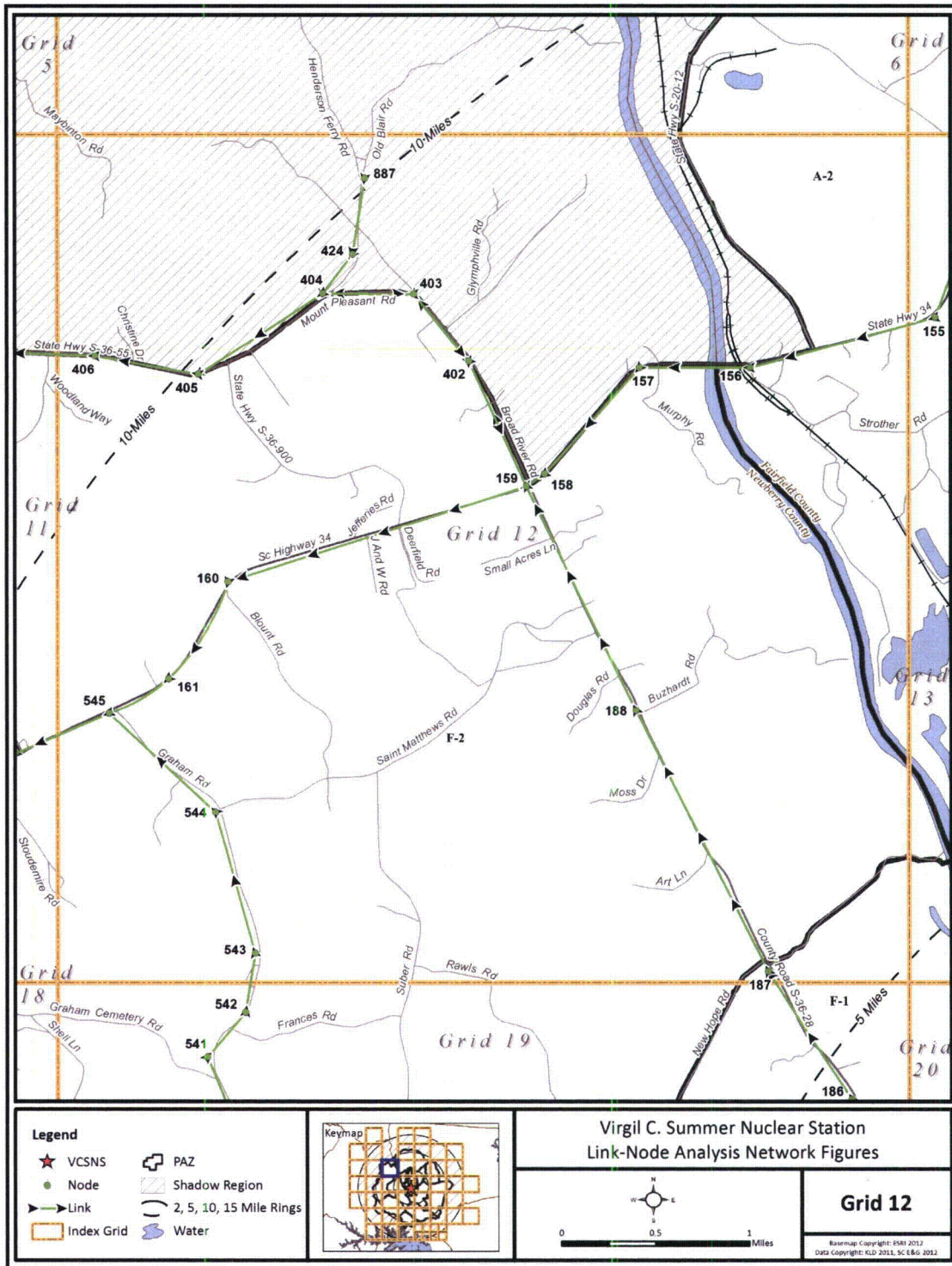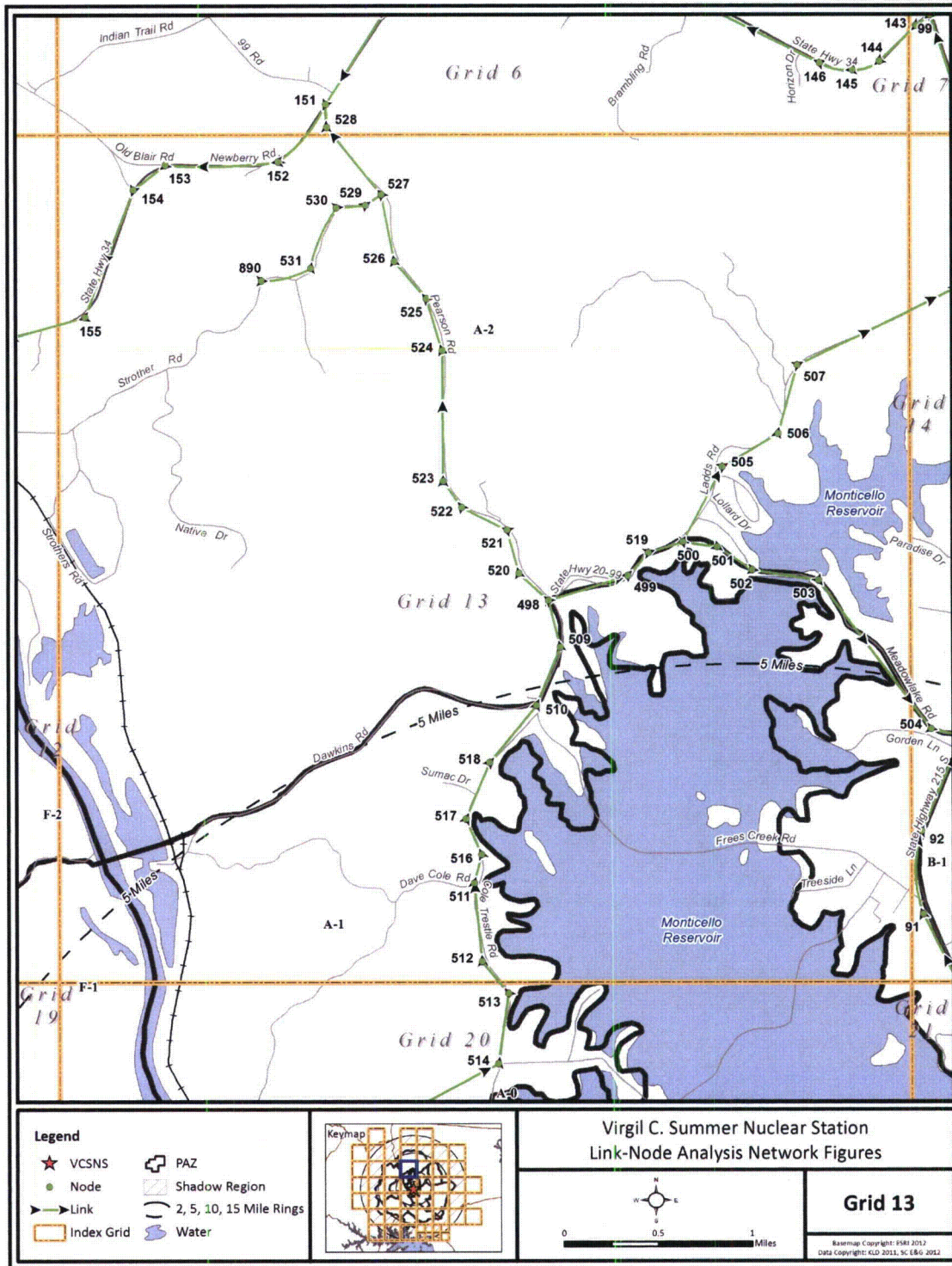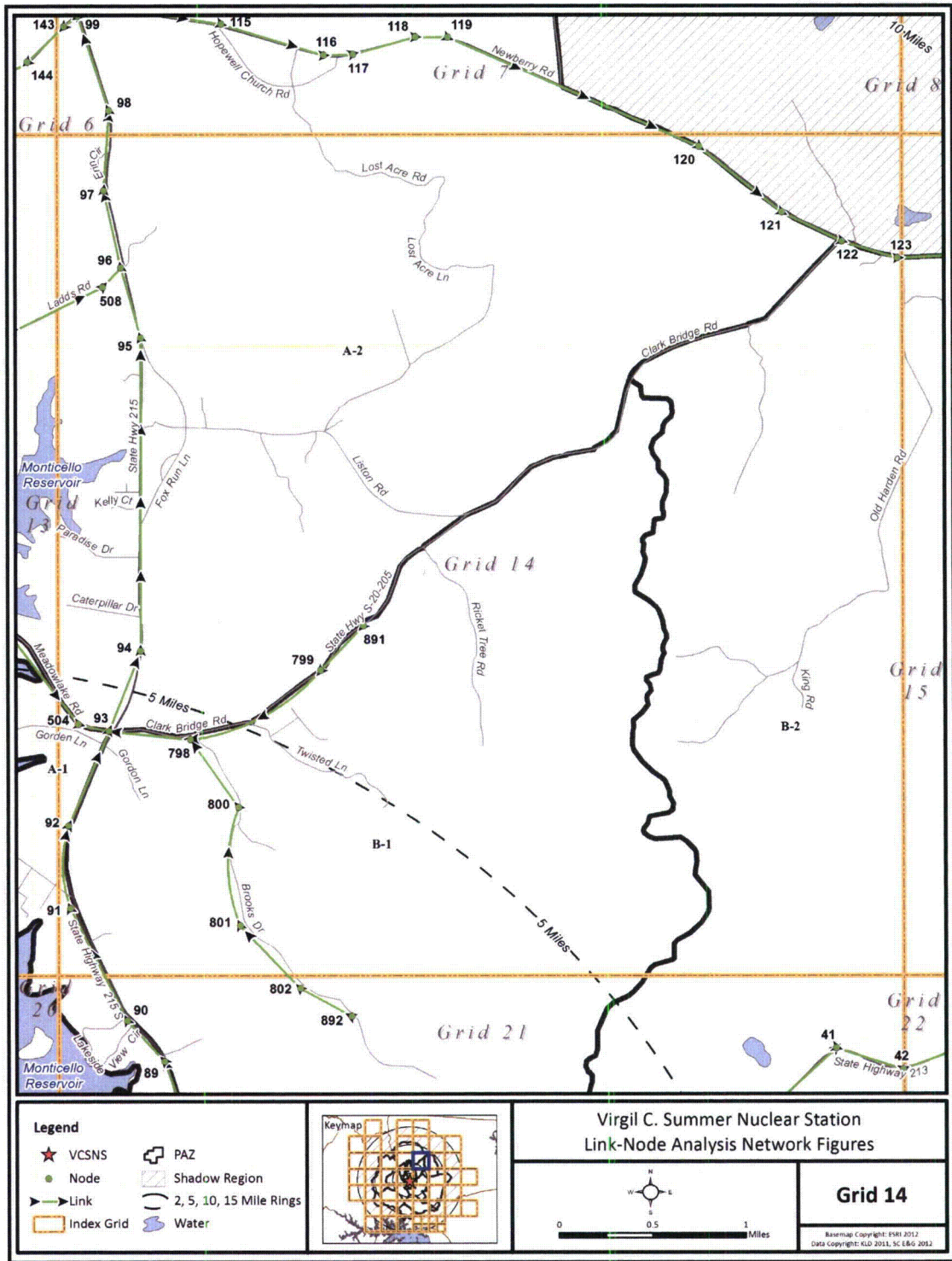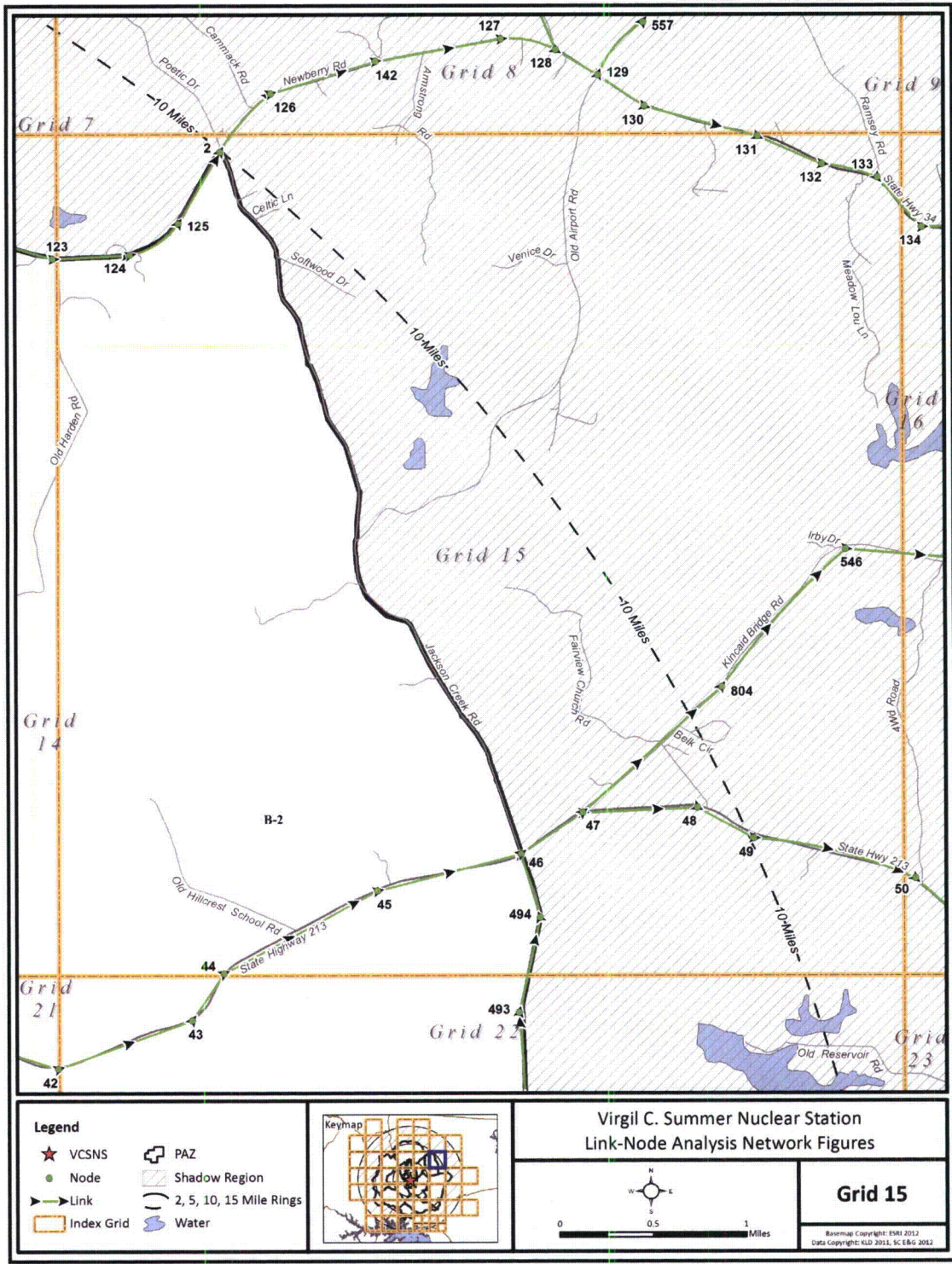Figure K-13. Grid 12

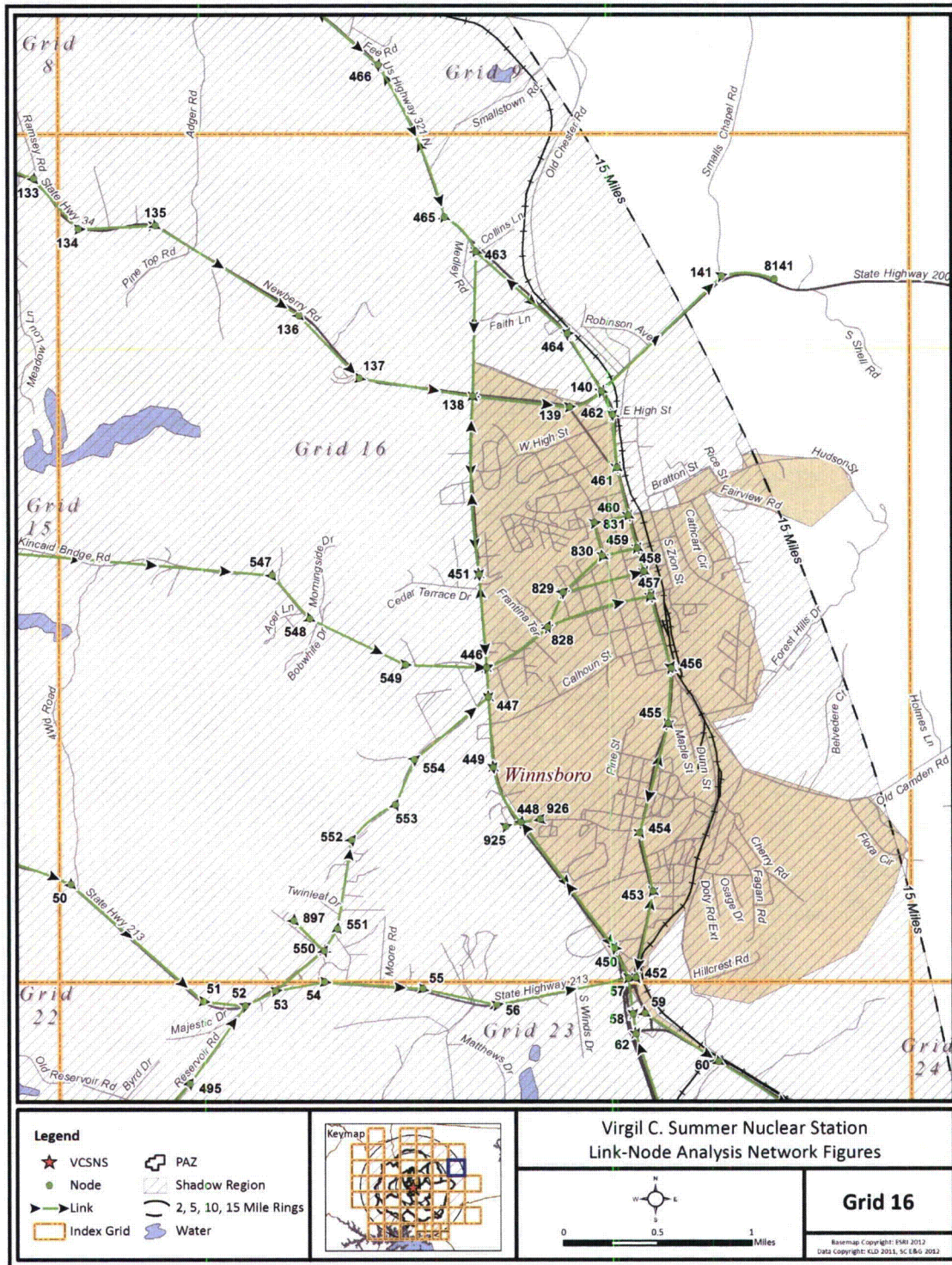Figure K-14. Grid 13

Figure K-15. Grid 14
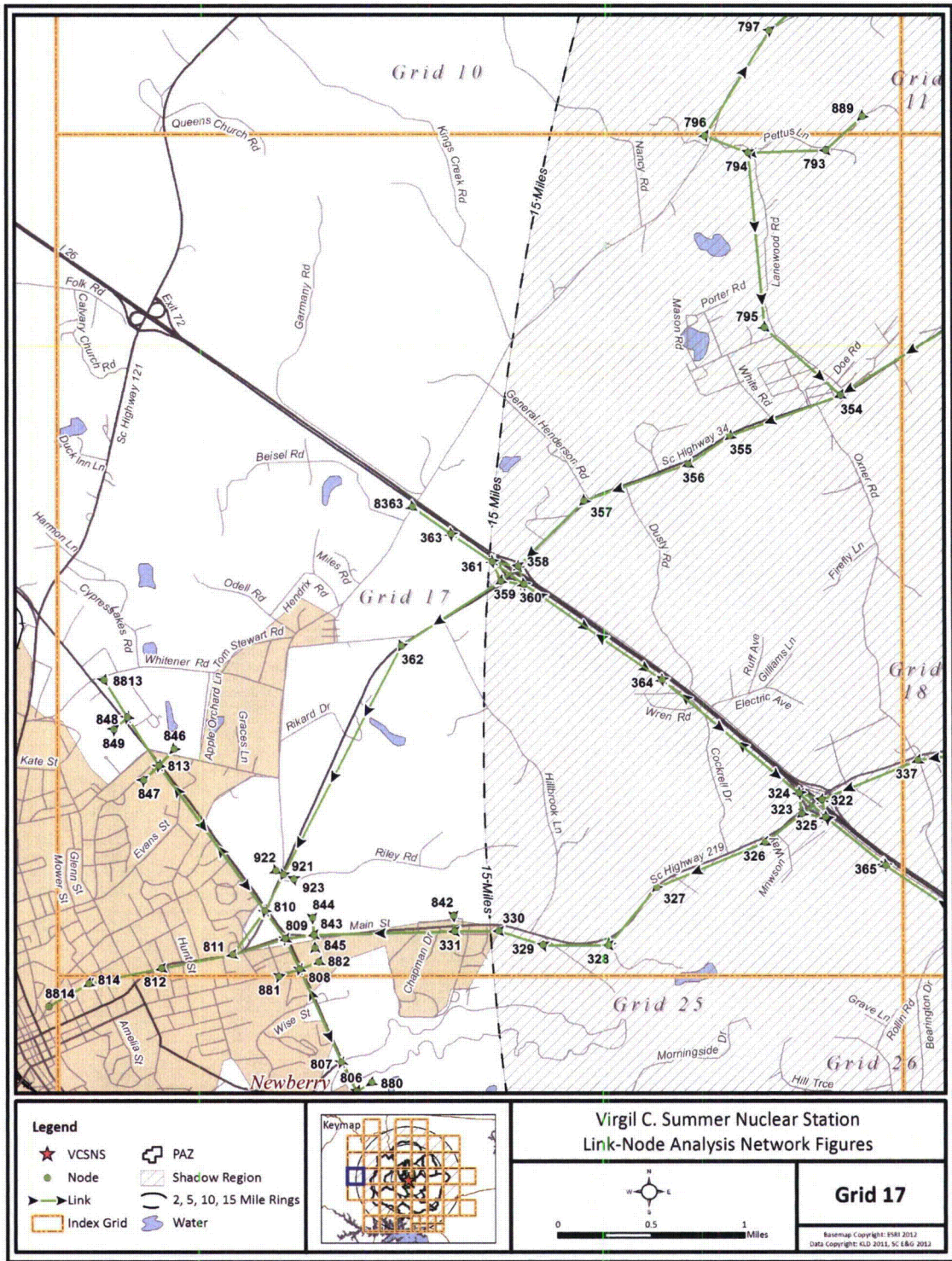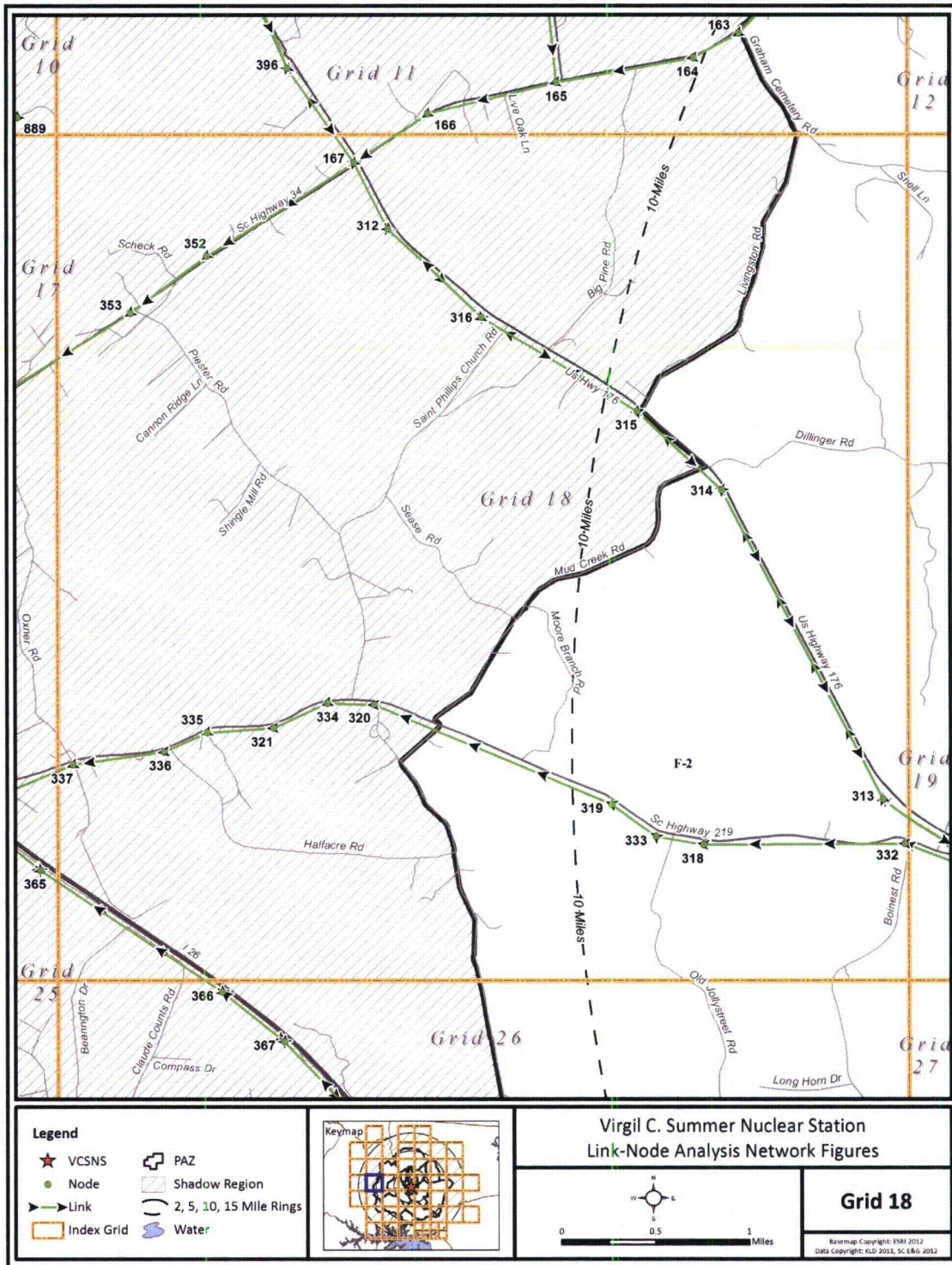
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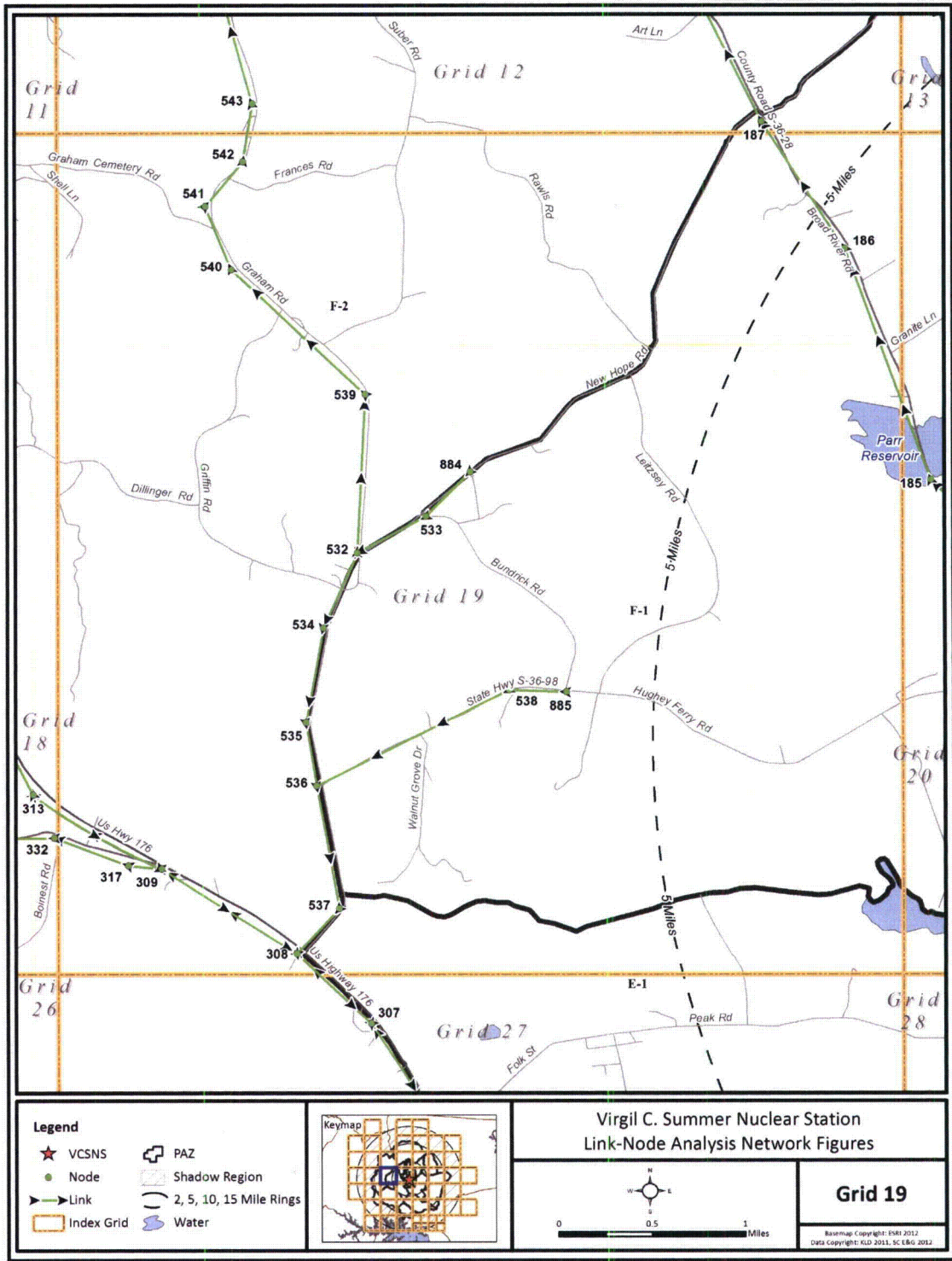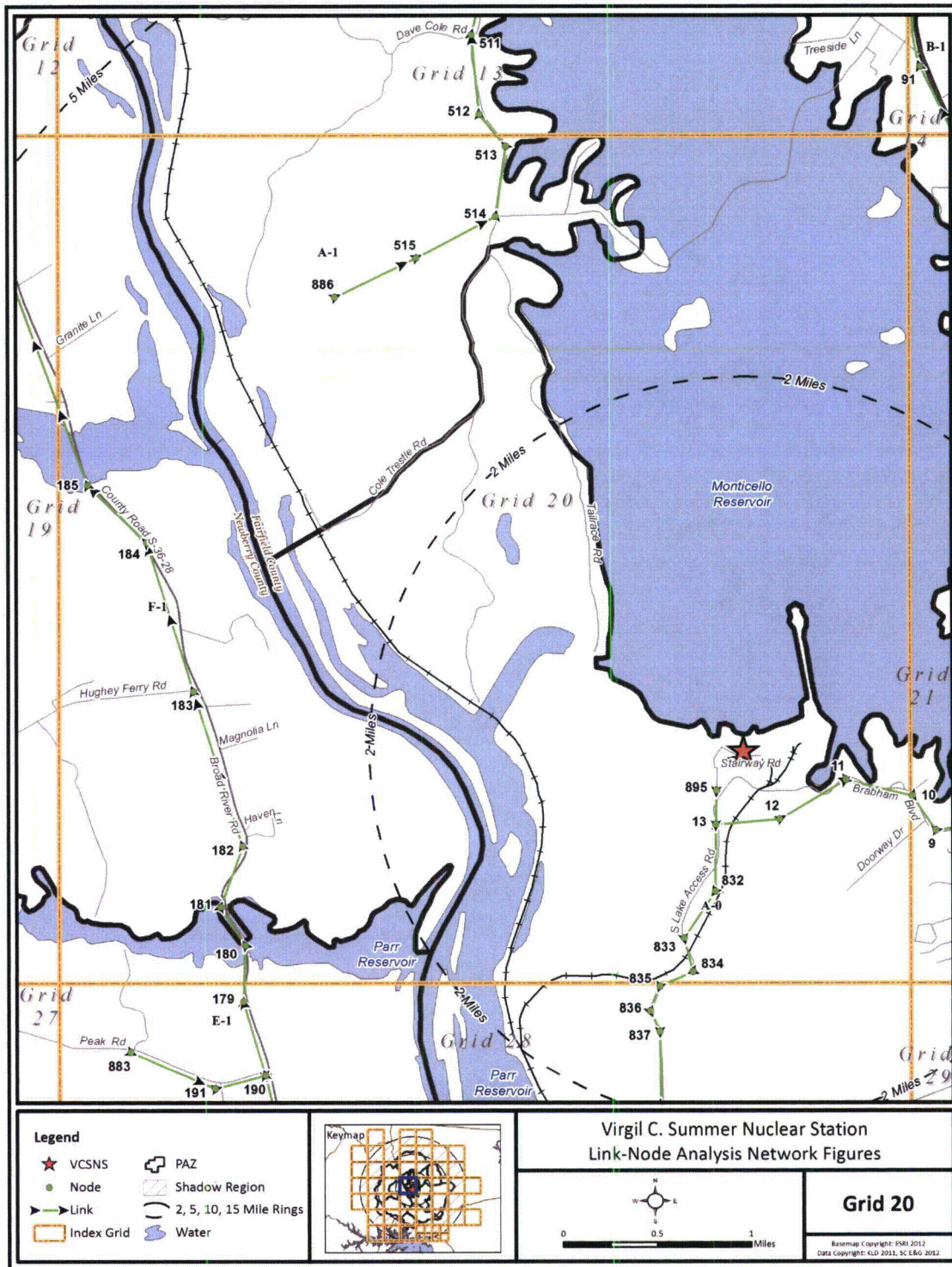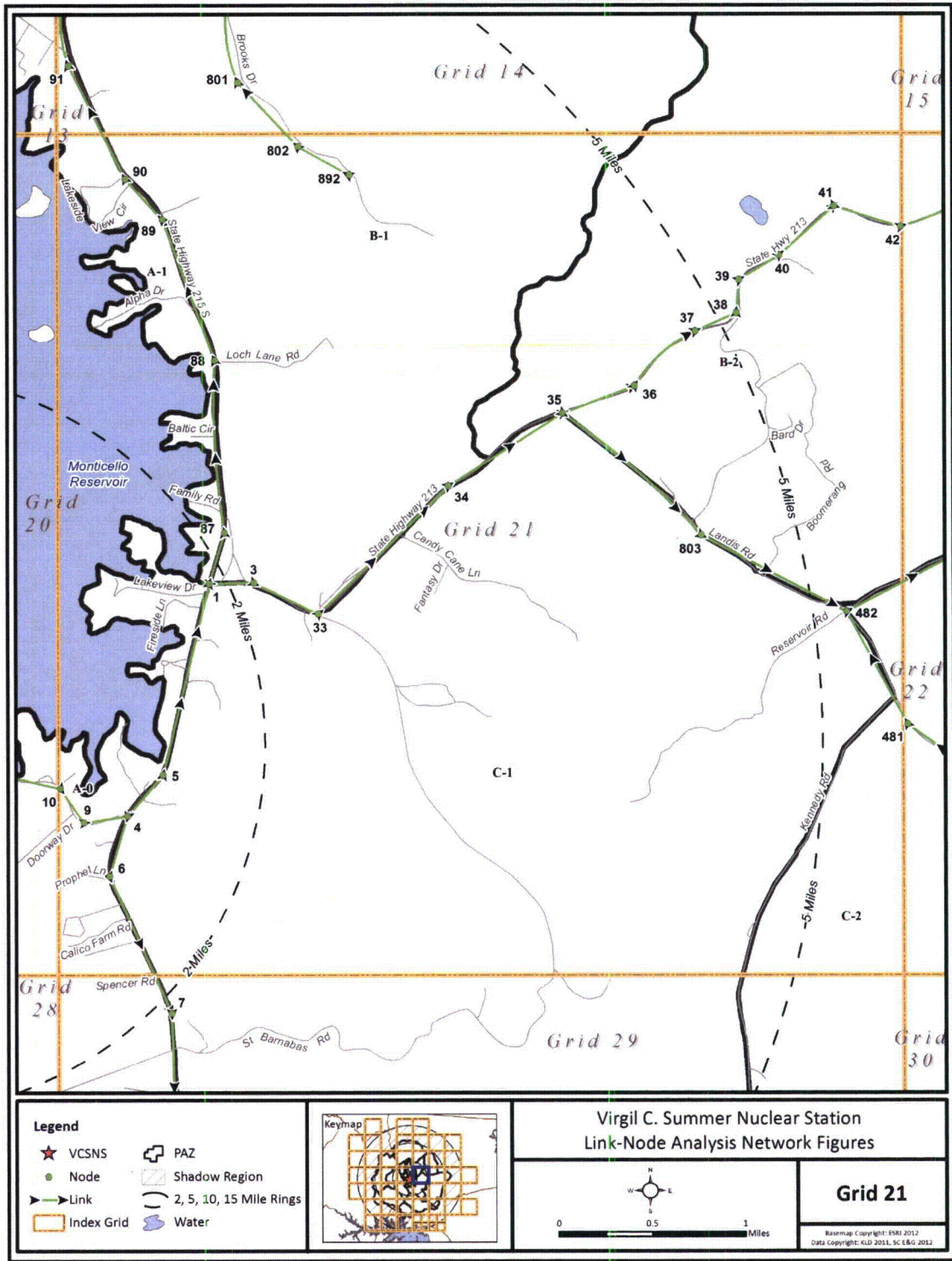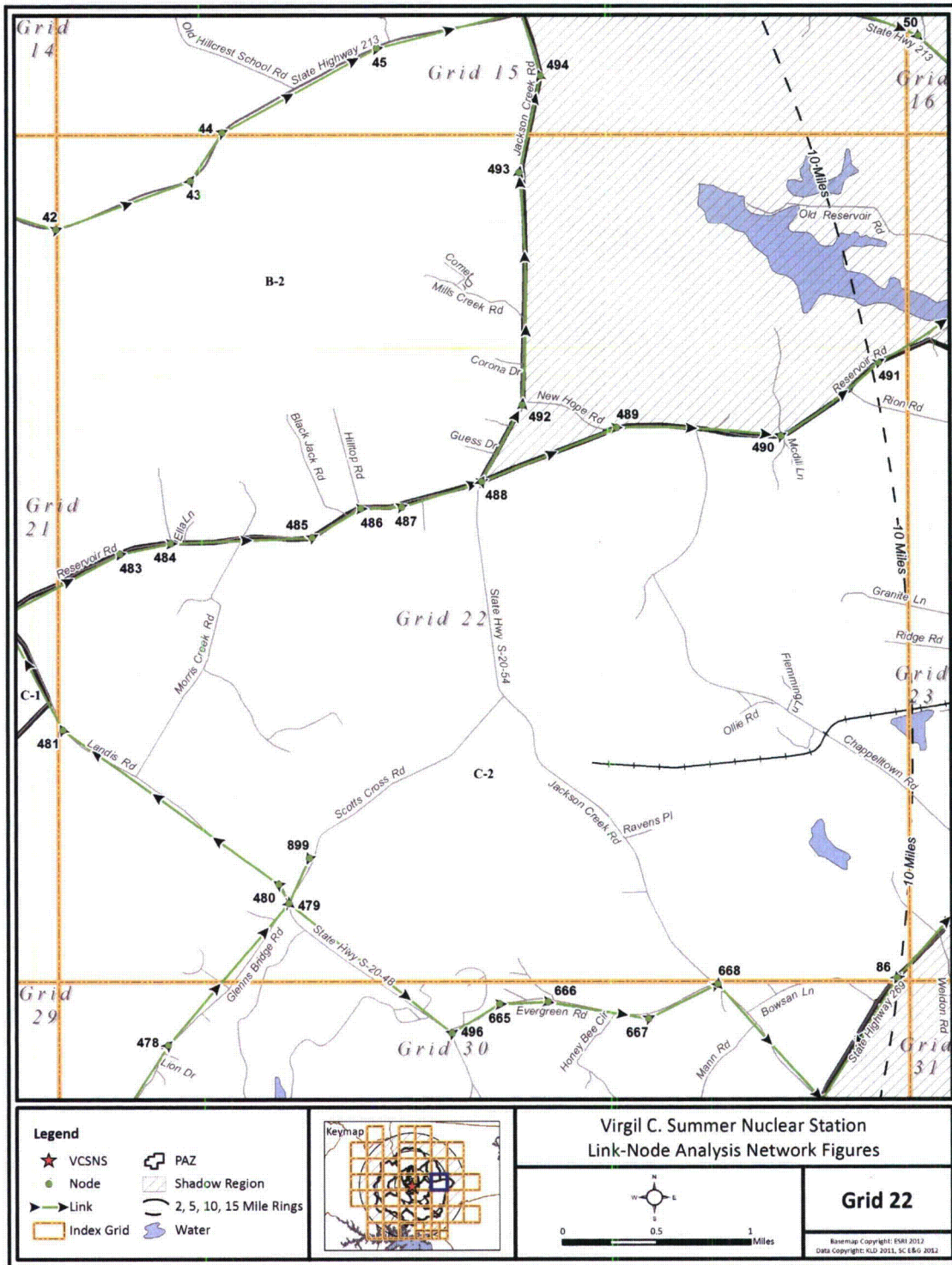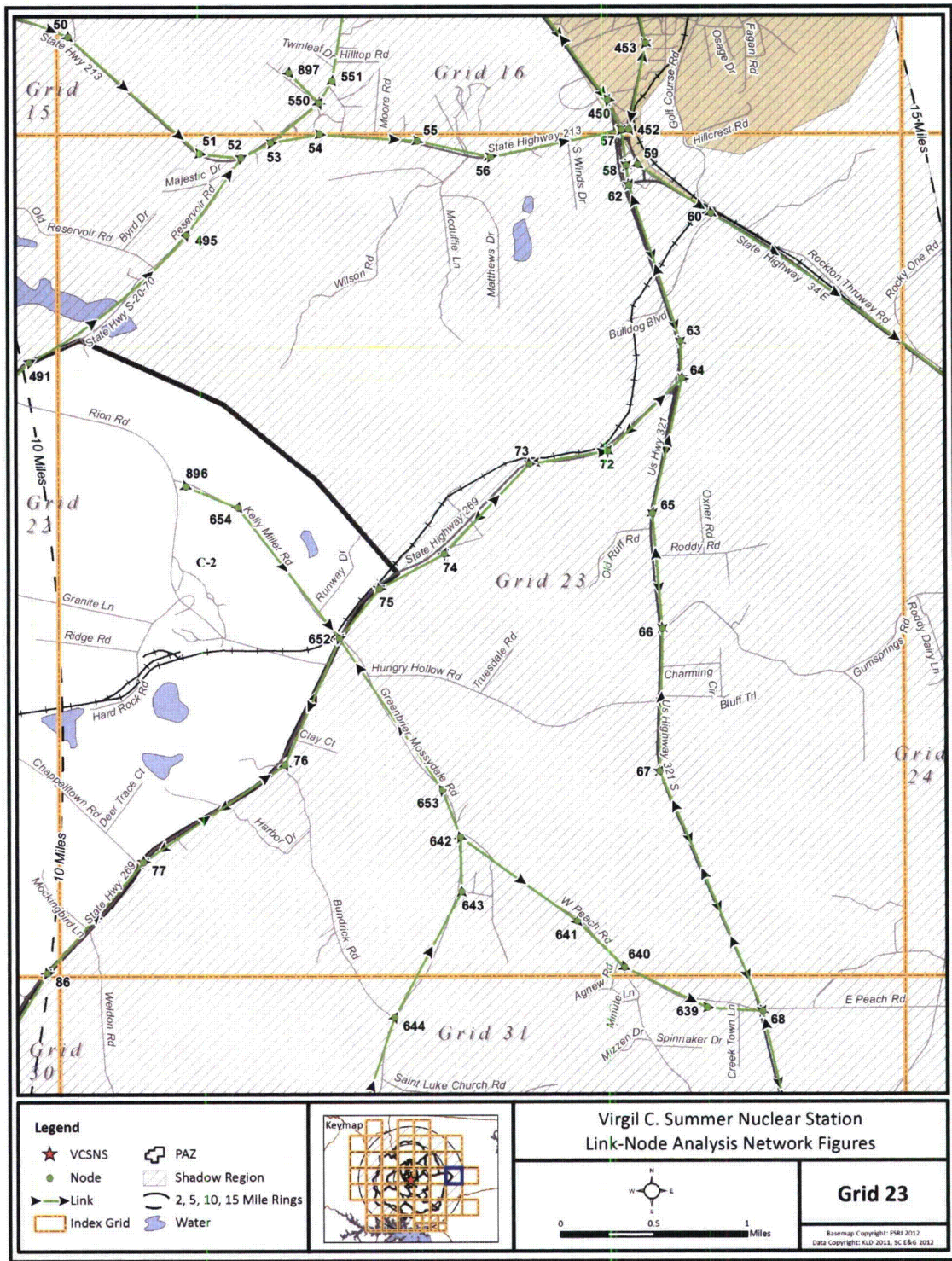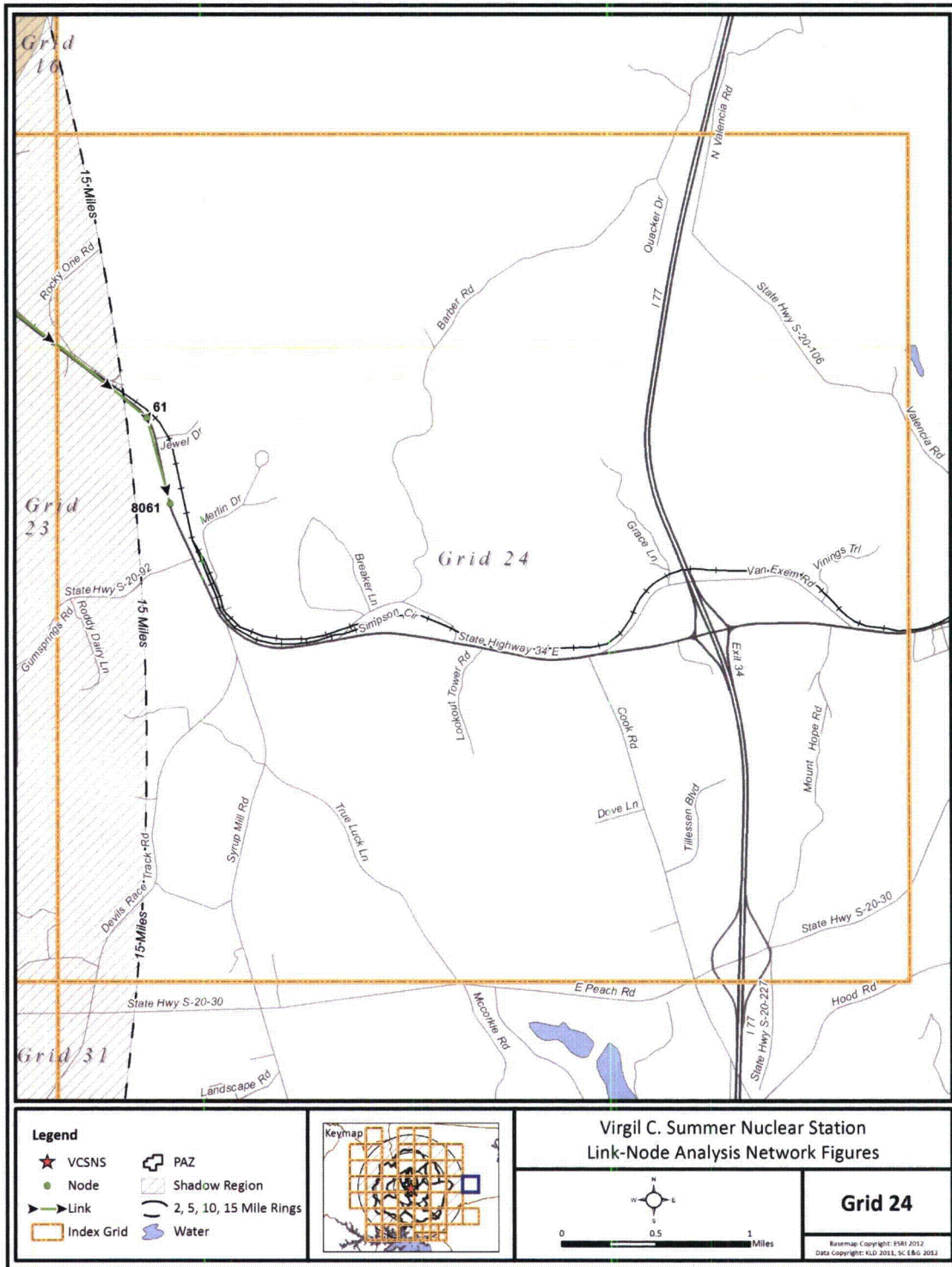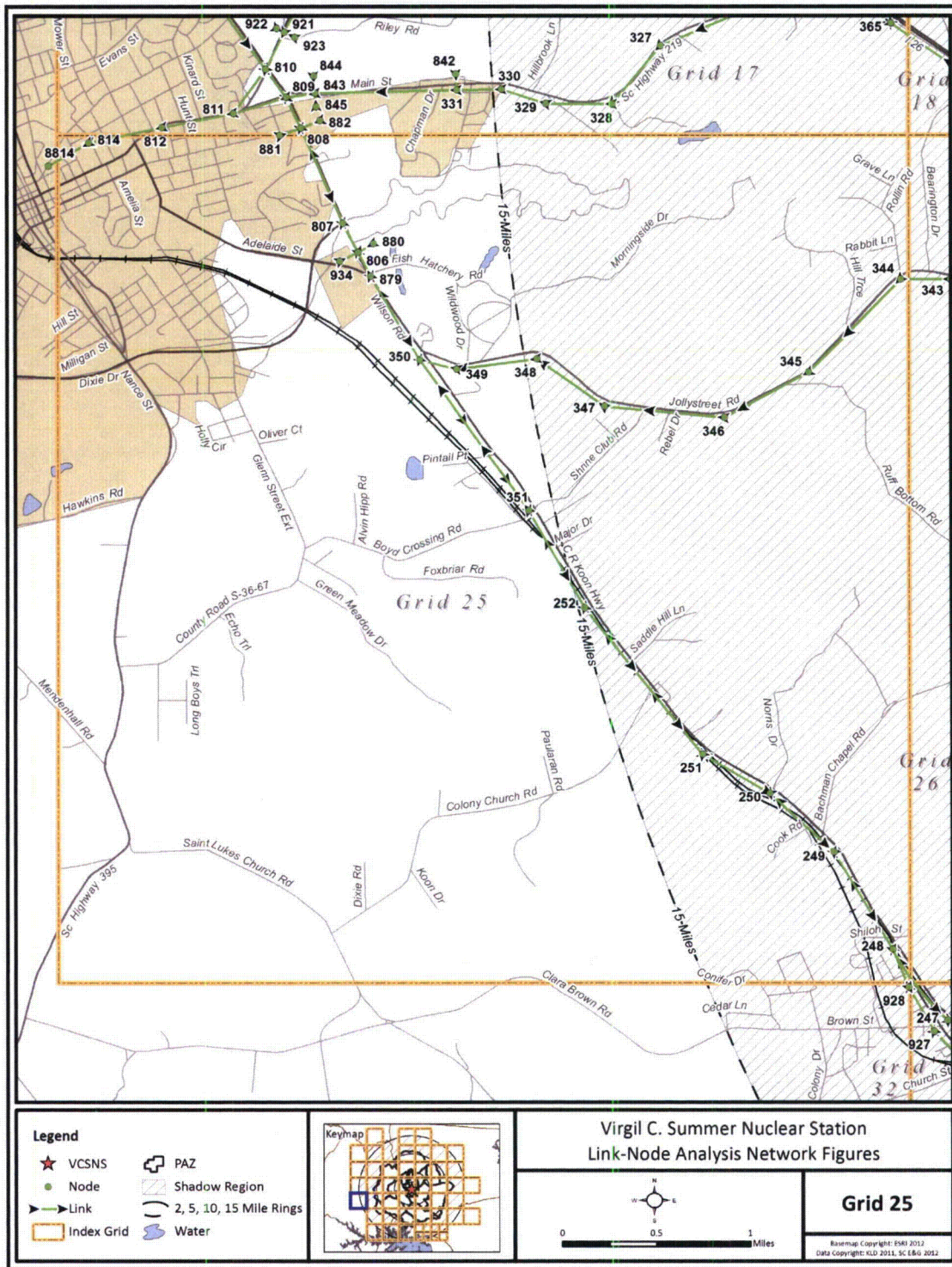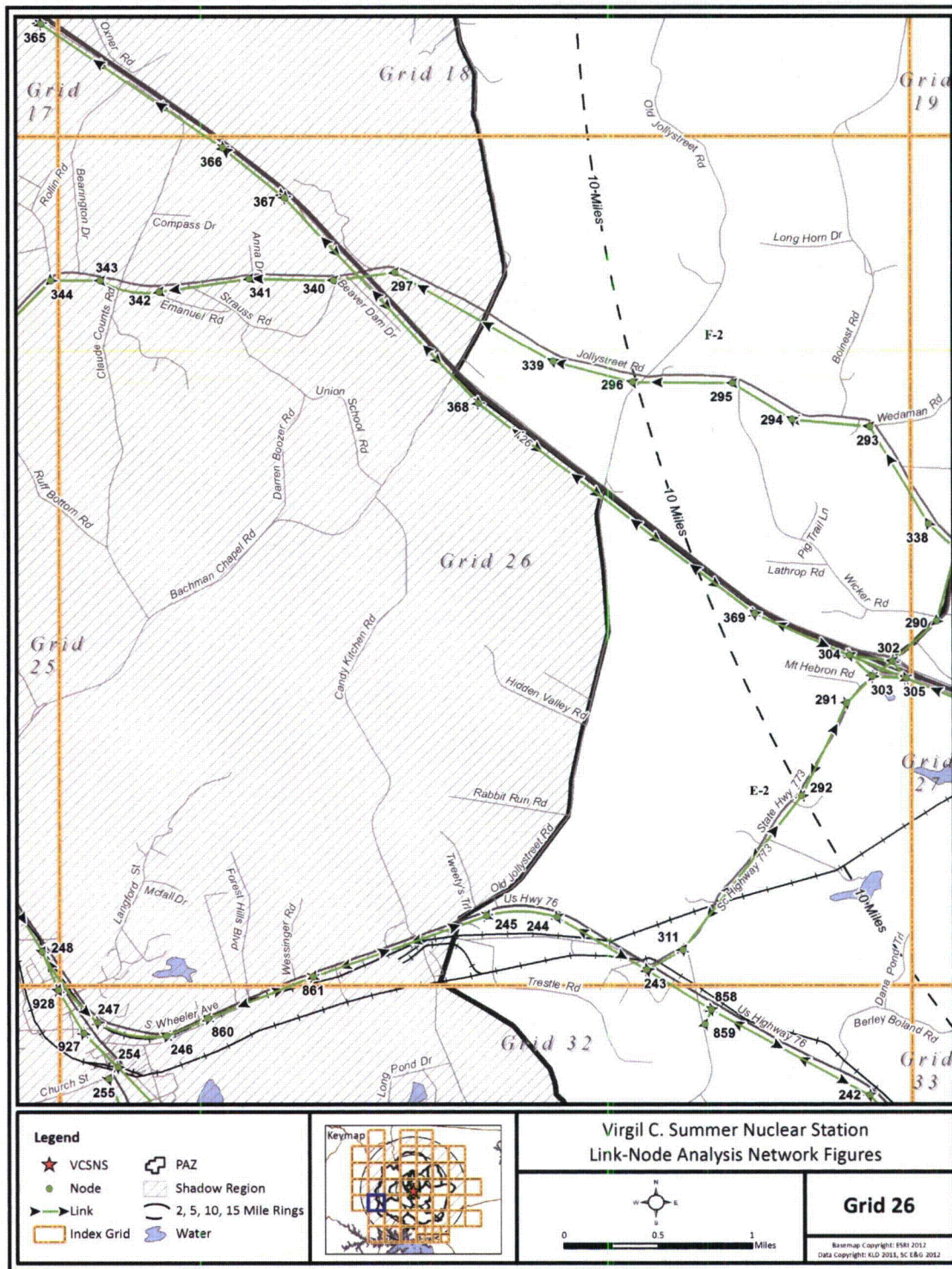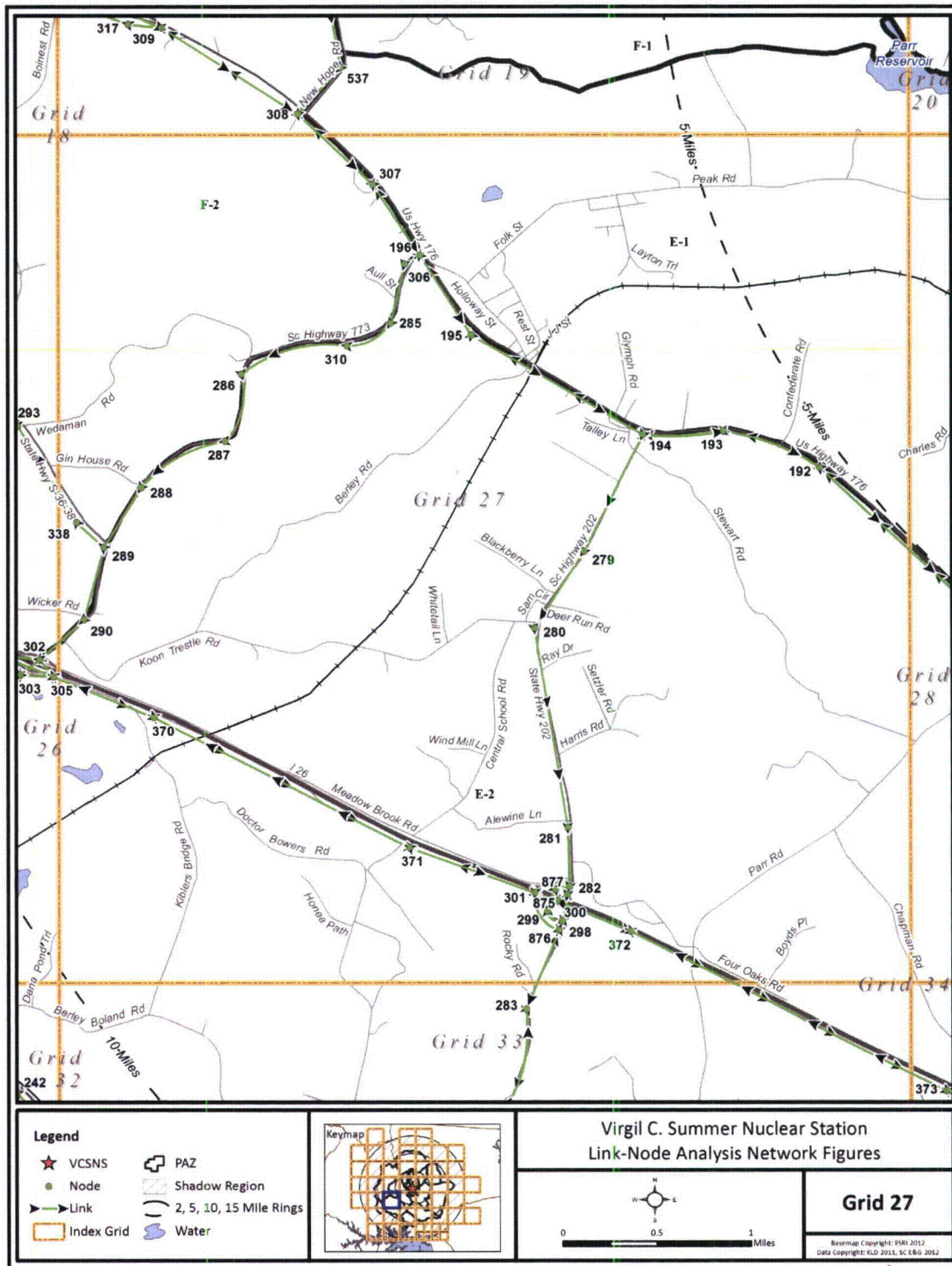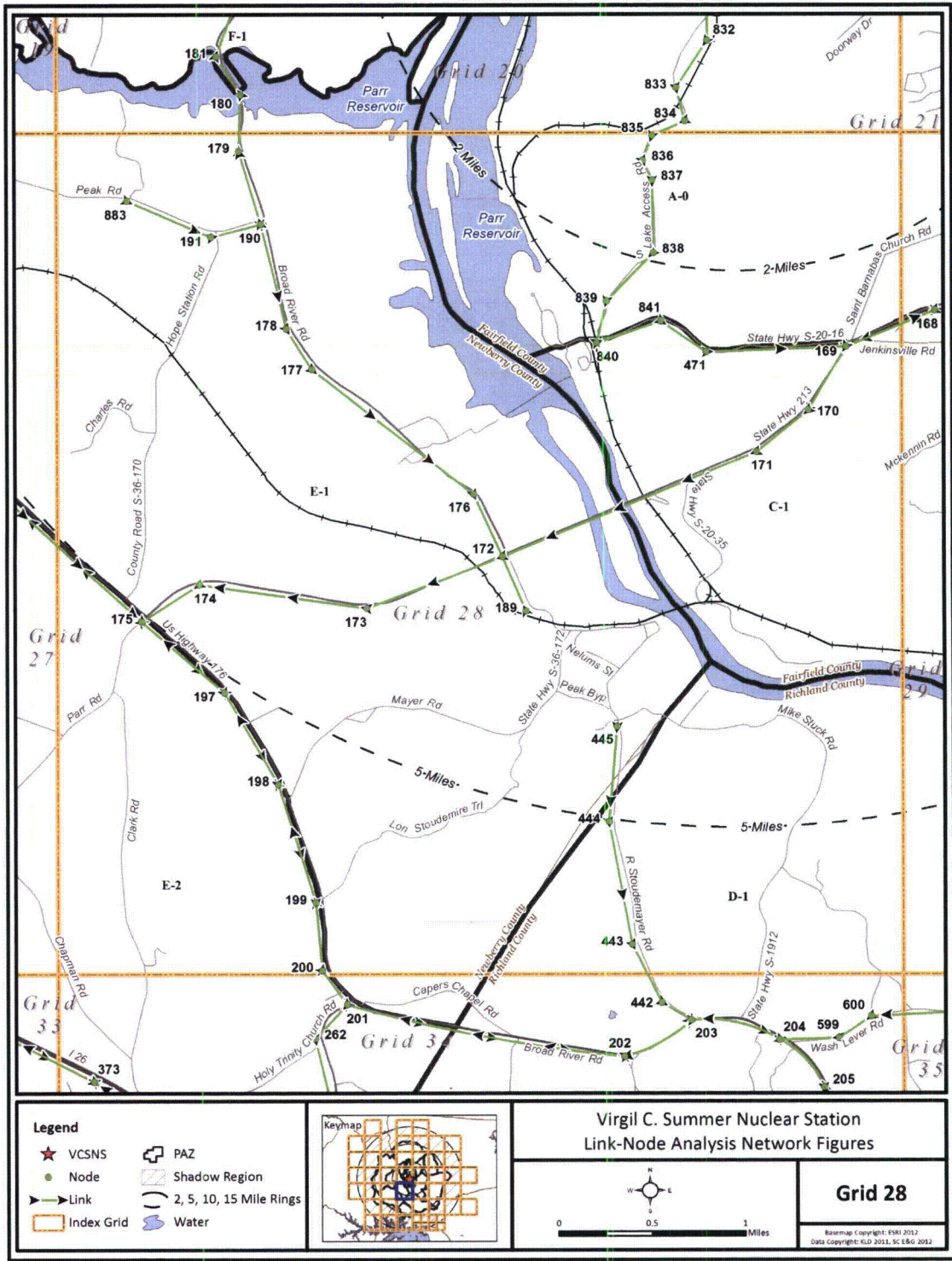
Figure K-17. Grid 16
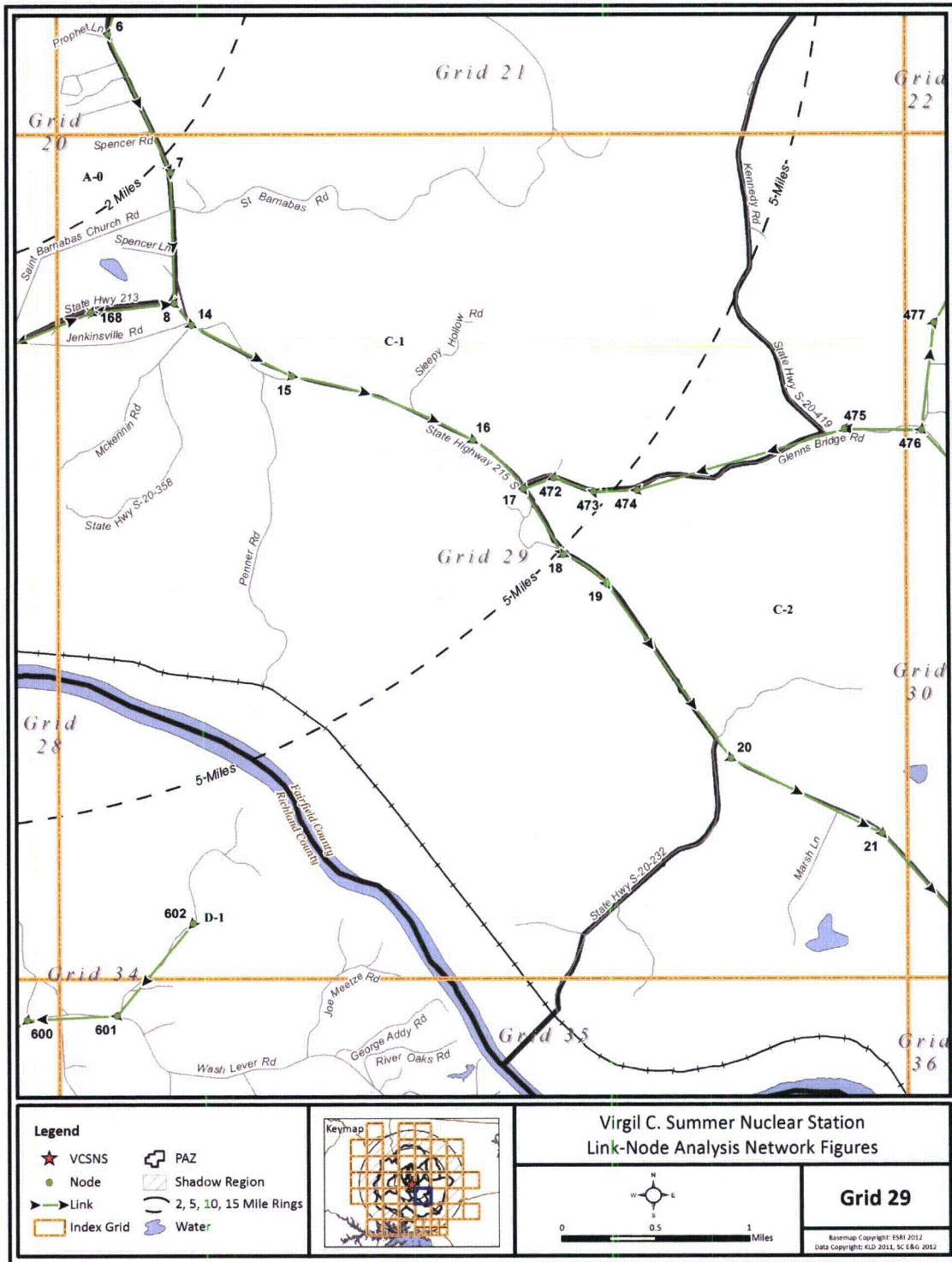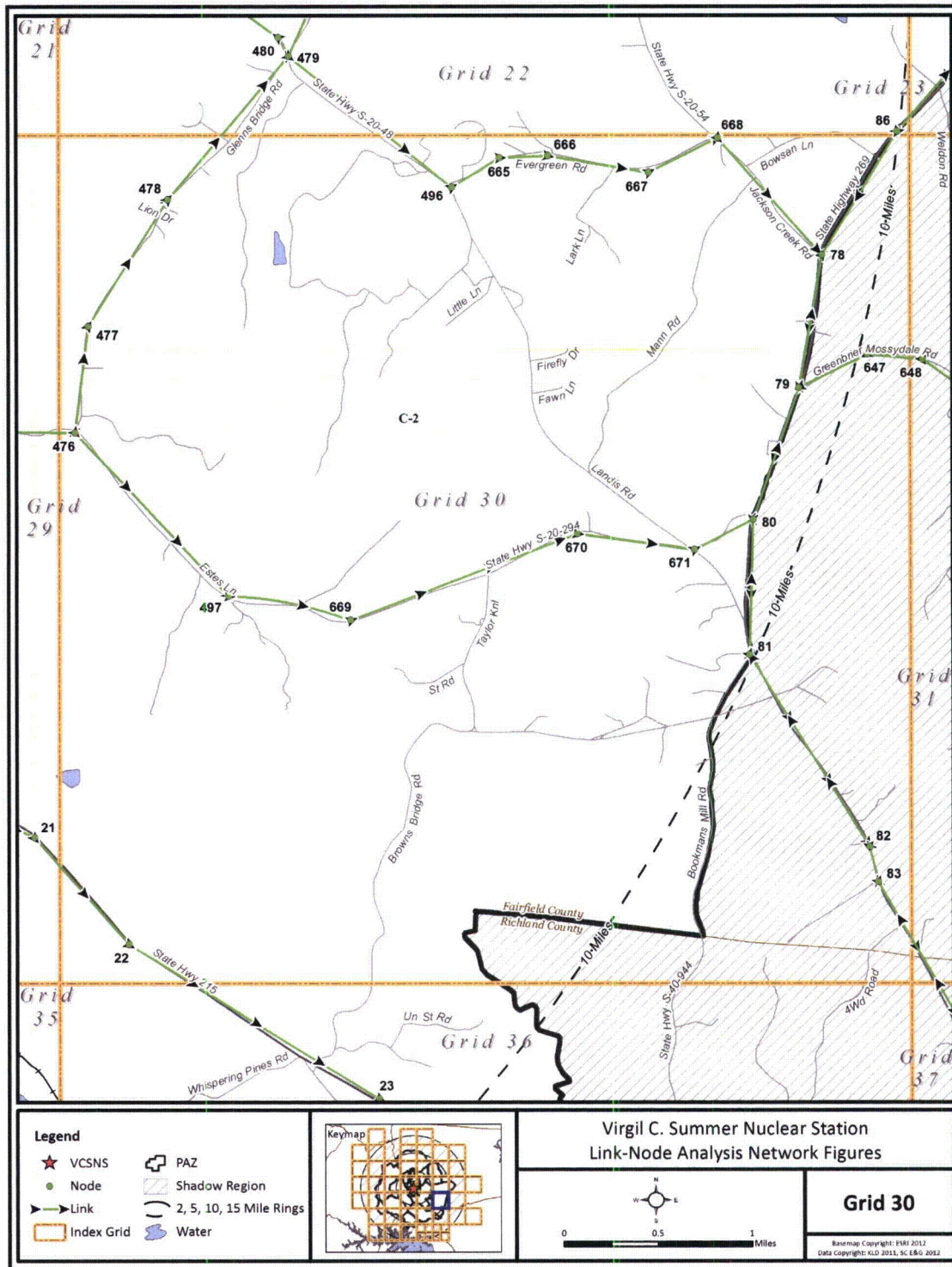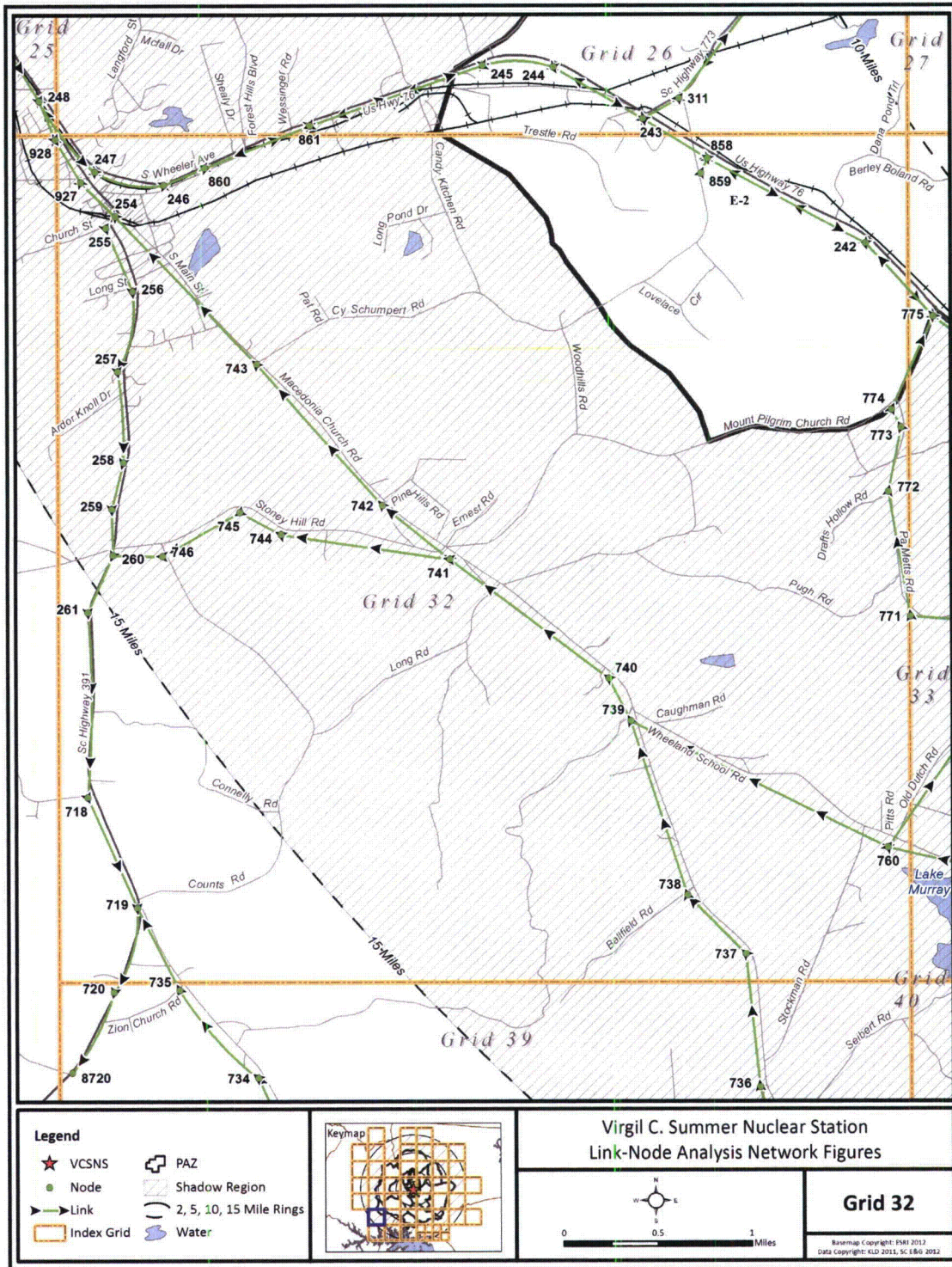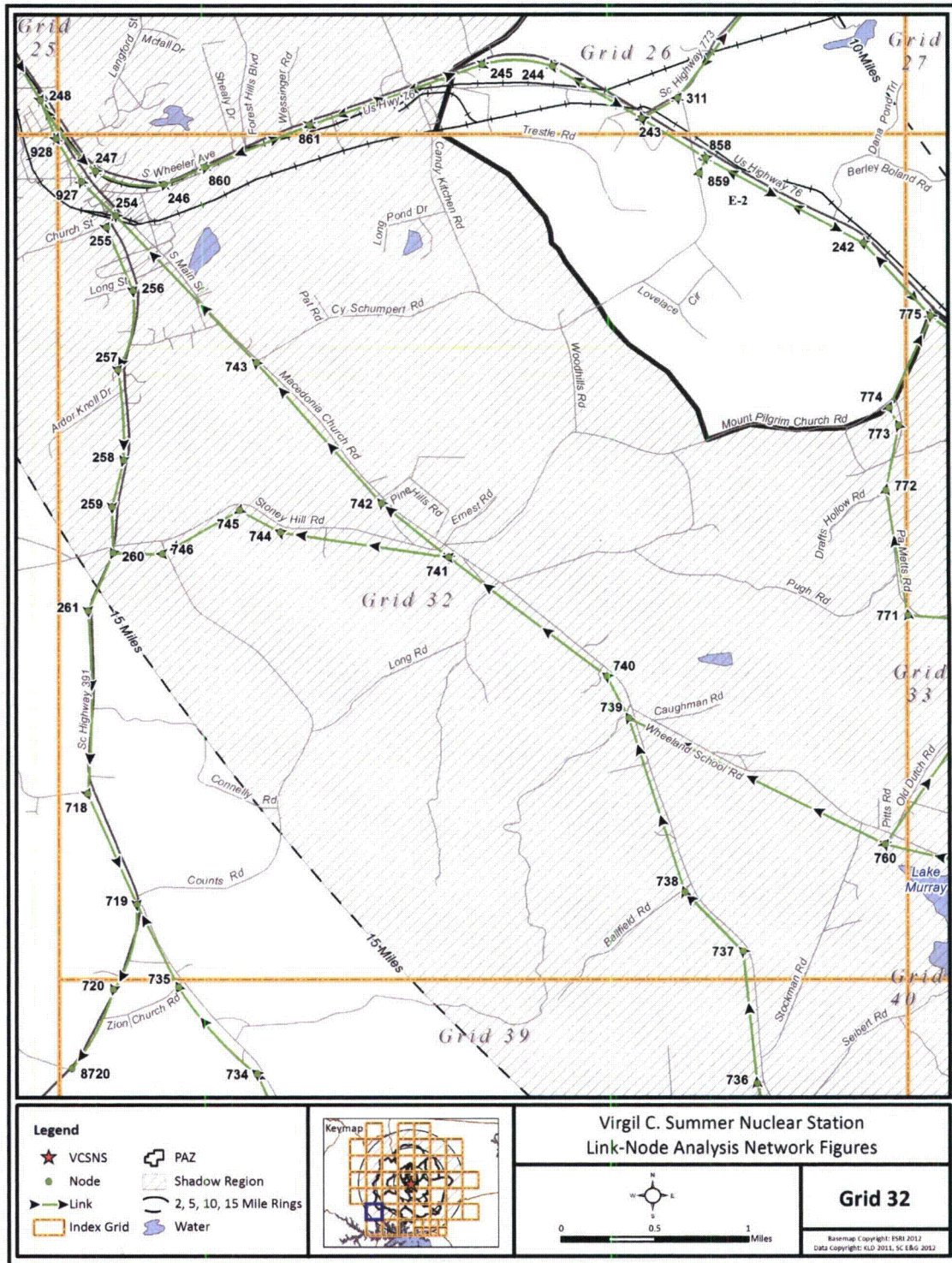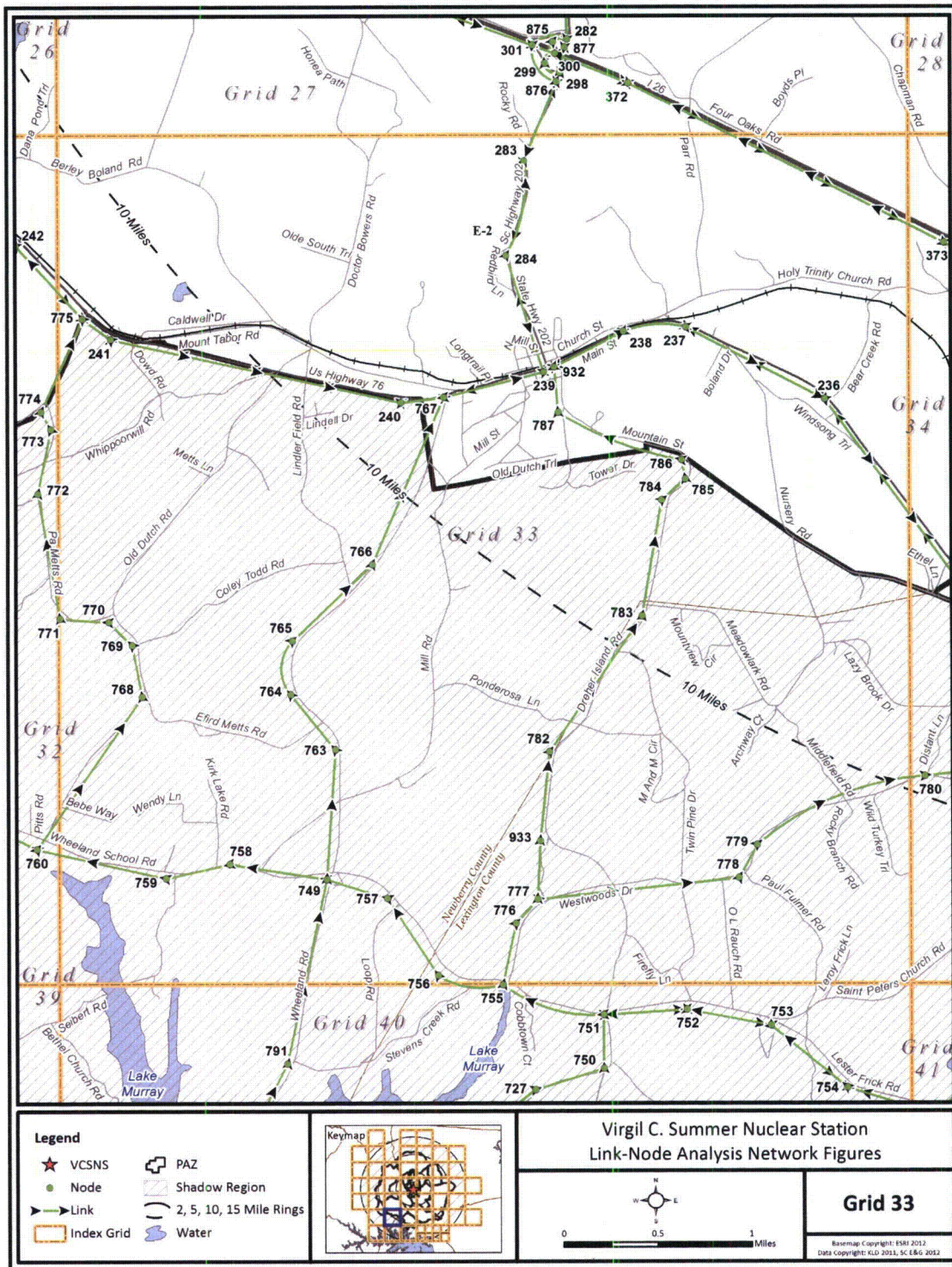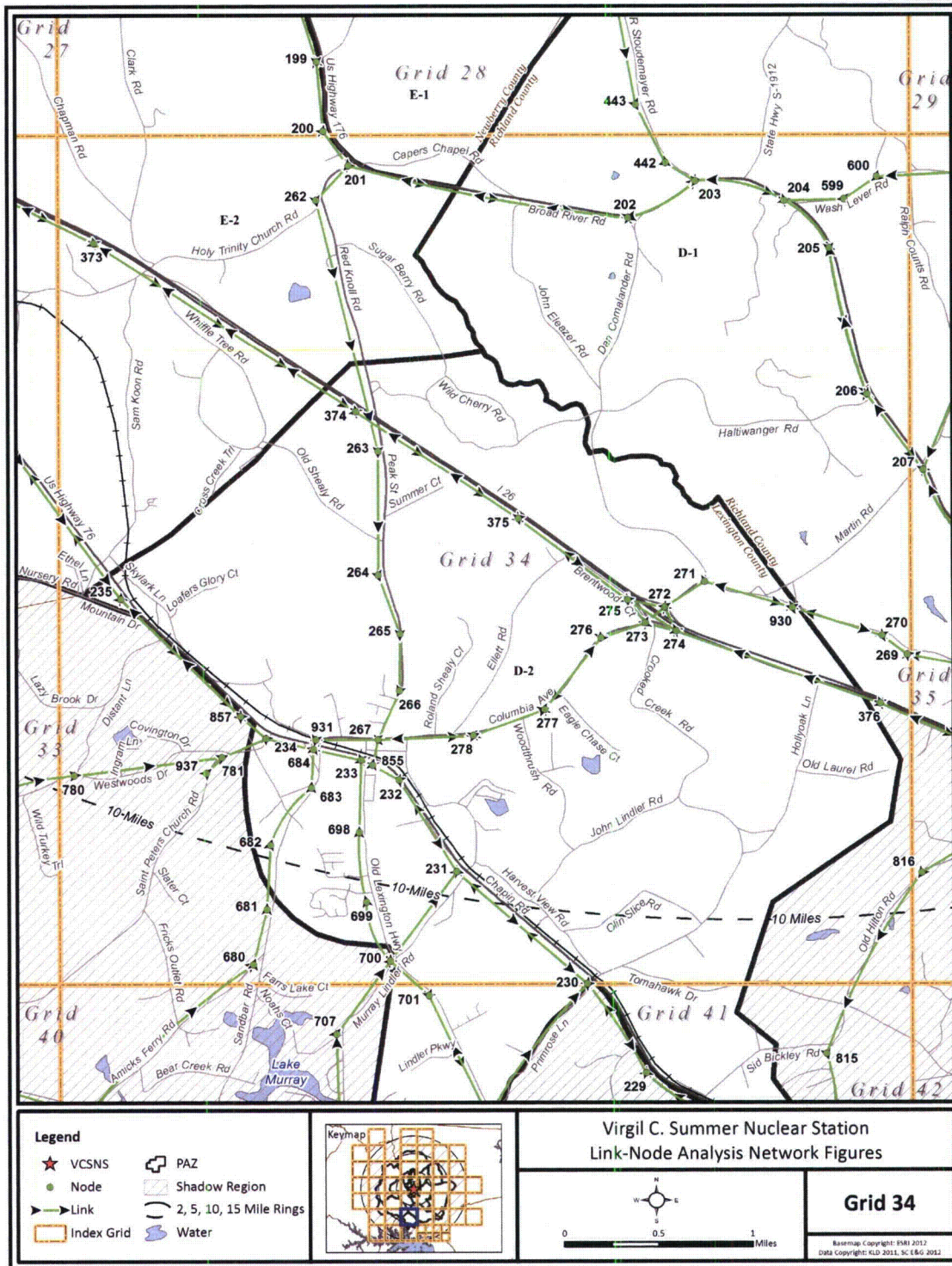
Figure K-18. Grid 17

Figure K-19. Grid 18

Figure K-20. Grid 19

Figure K-21. Grid 20

Figure K-22. Grid 21

Figure K-23. Grid 22

Evacuation Time Estimate

K-24

KLD Engineering, P.C.
Rev. 2

Figure K-24. Grid 23

Figure K-25. Grid 24

Figure K-26. Grid 25

Figure K-27. Grid 26

Figure K-28. Grid 27

Figure K-29. Grid 28

Figure K-30. Grid 29

Figure K-31. Grid 30

Figure K-32. Grid 31
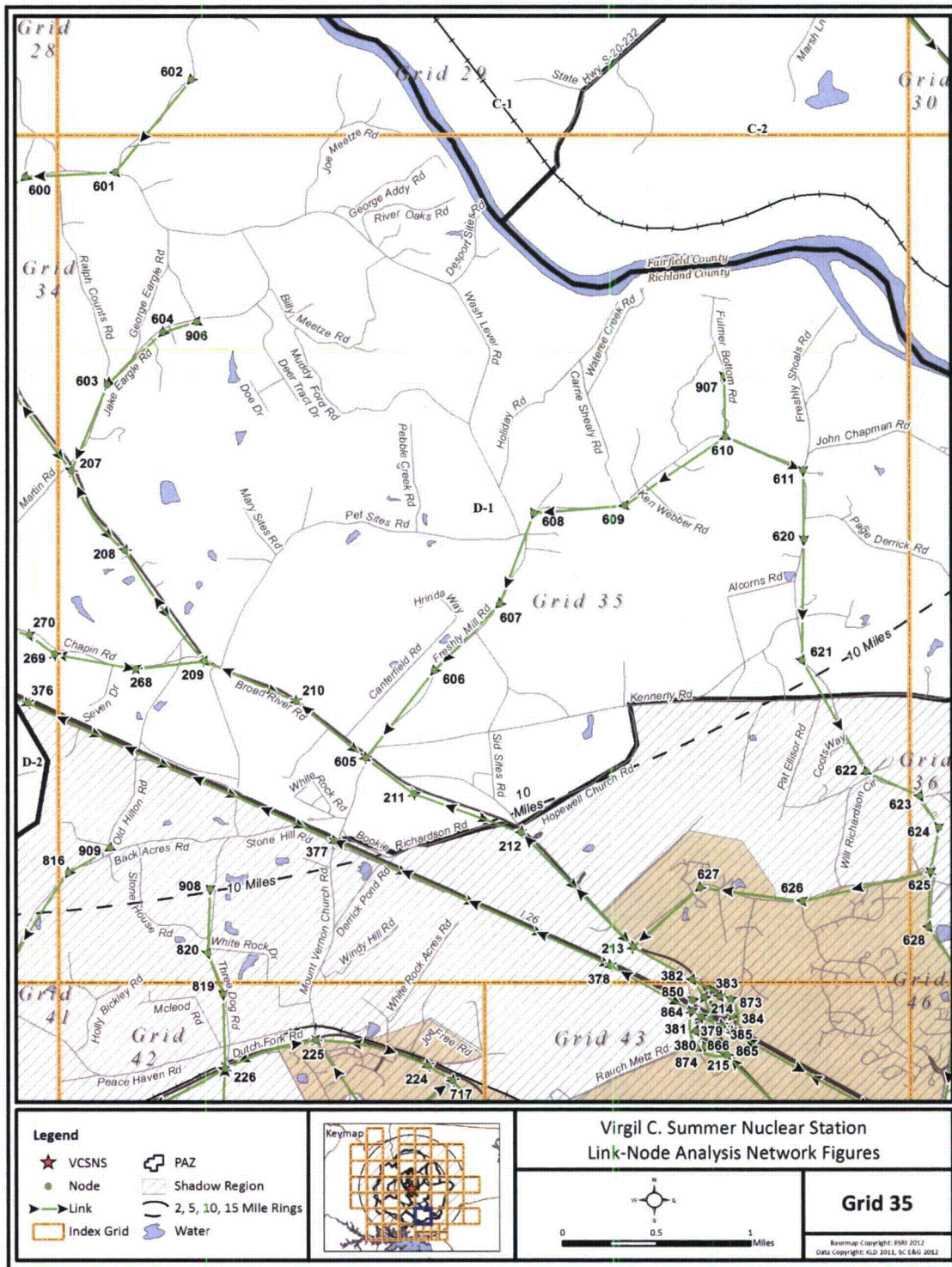
Figure K-33. Grid 32

Figure K-34. Grid 33
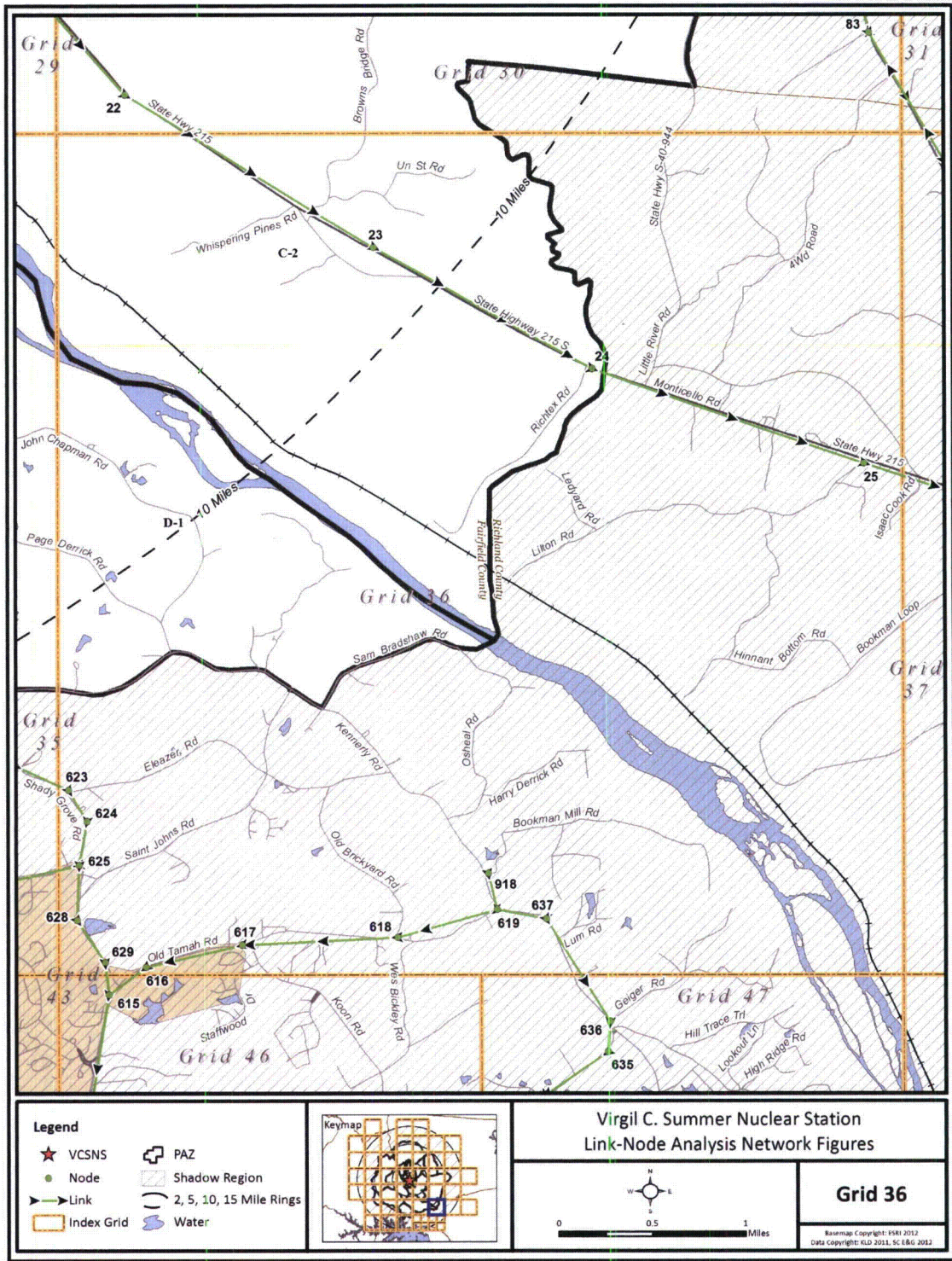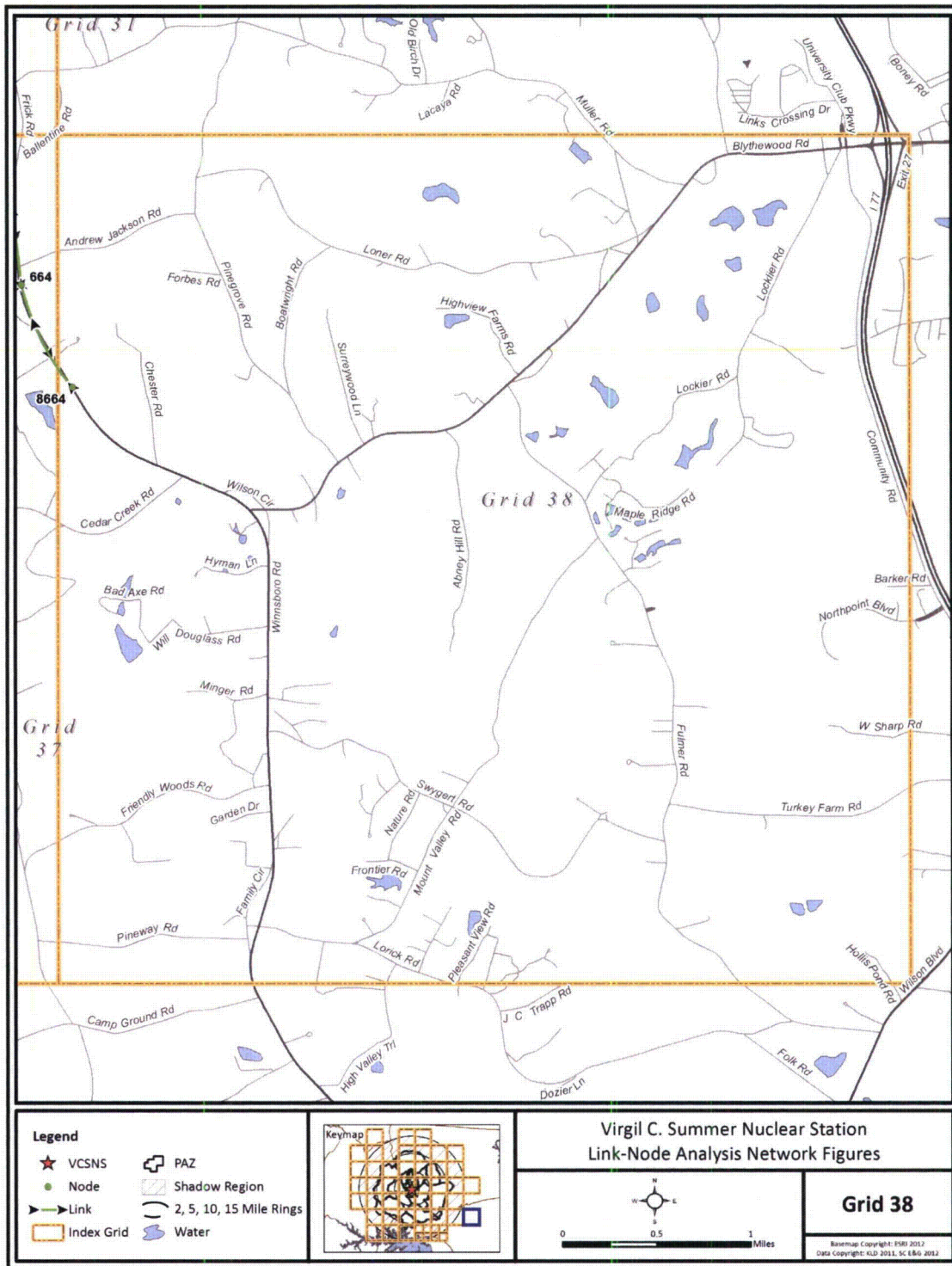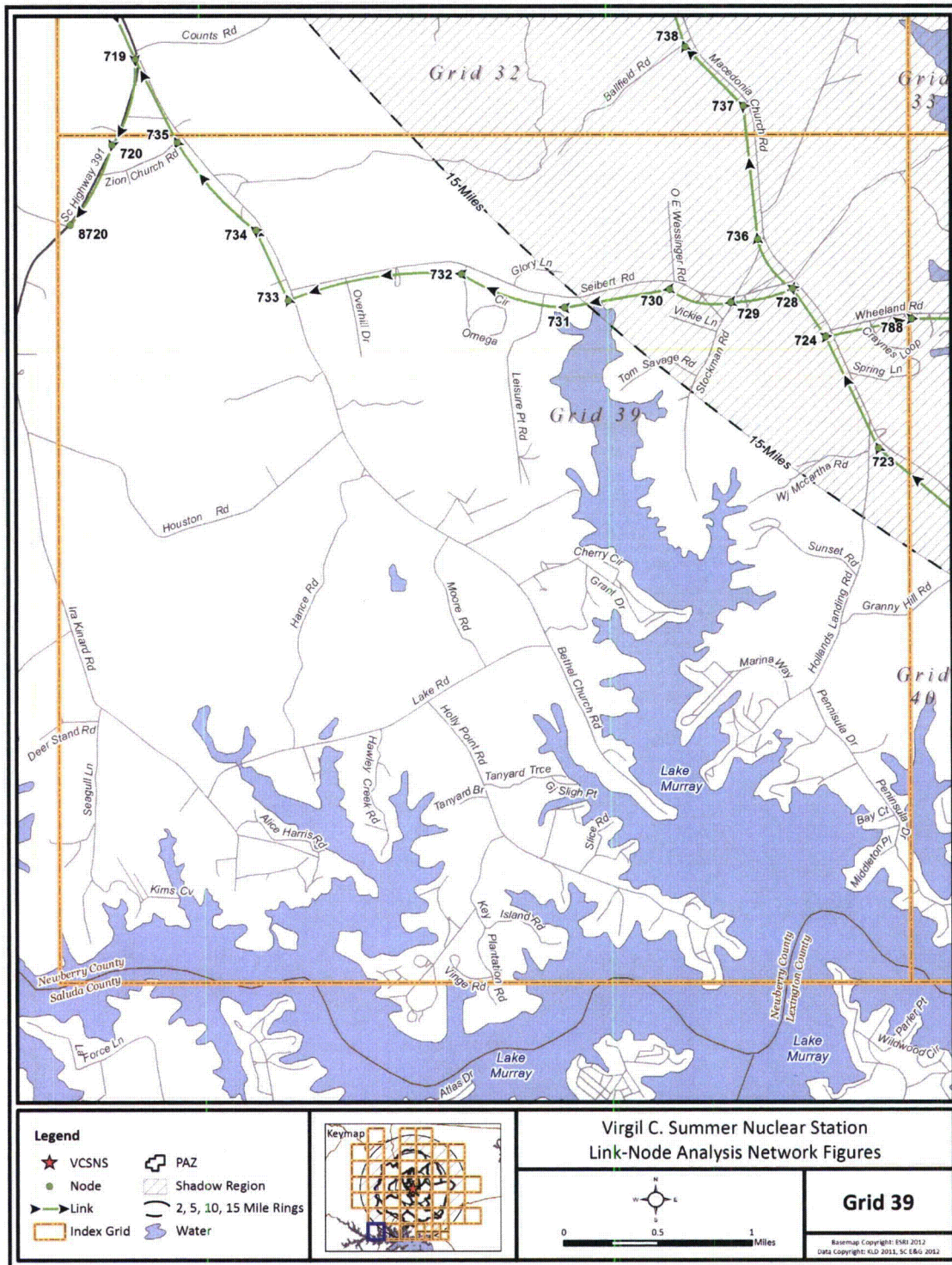
Figure K-35. Grid 34

Figure K-36. Grid 35

Figure K-37. Grid 36

Figure K-38. Grid 37
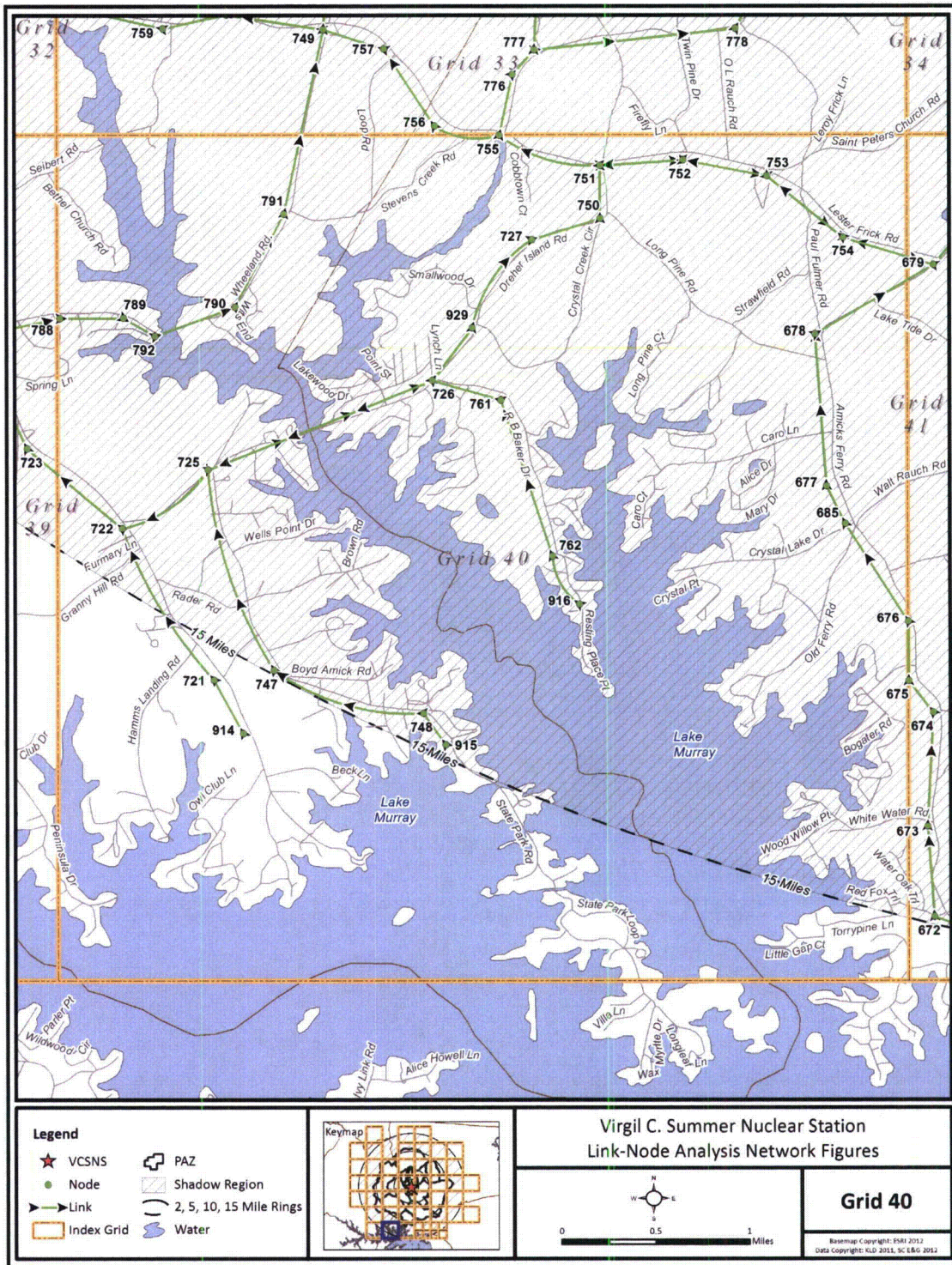
Figure K-39. Grid 38
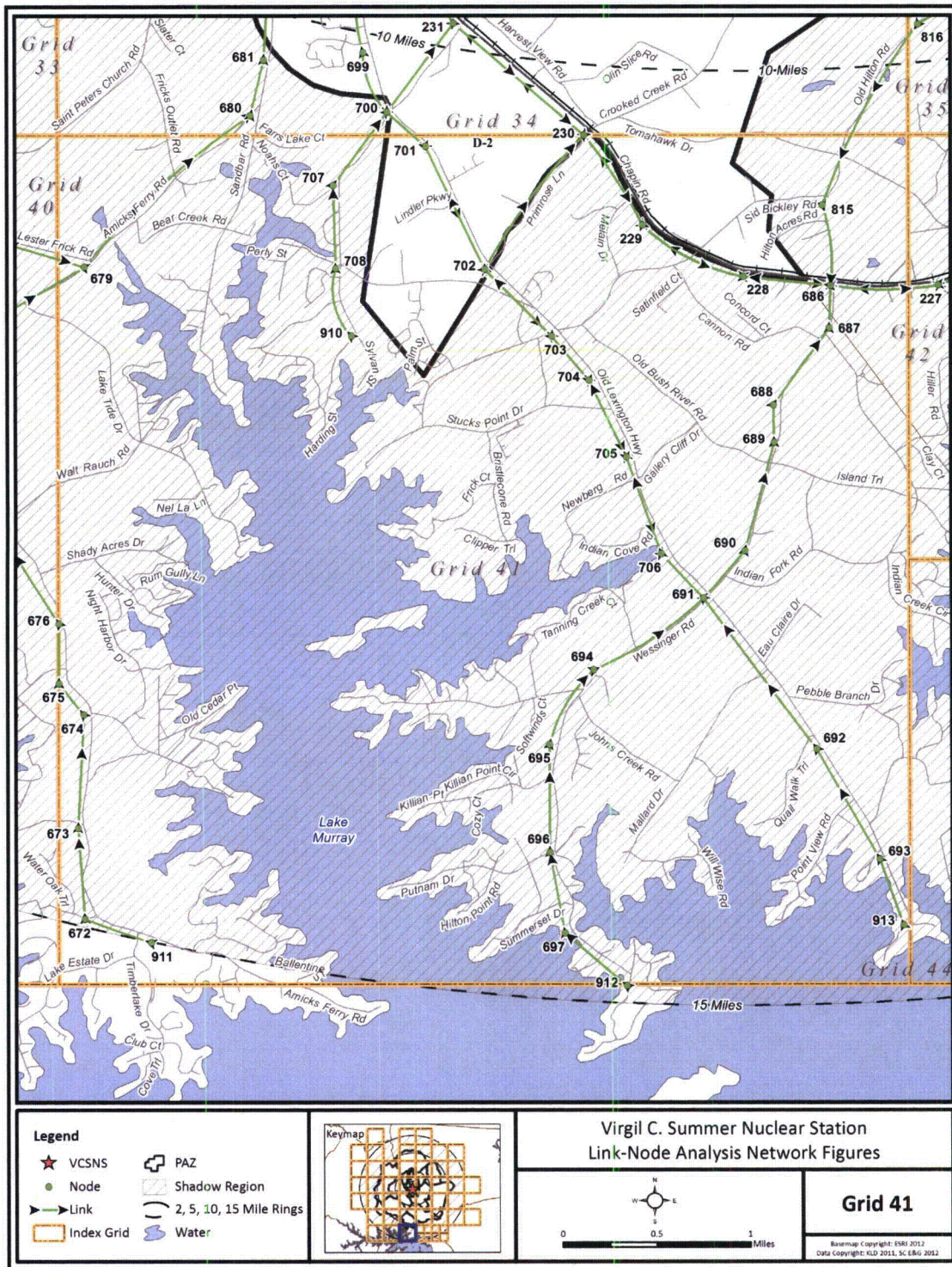
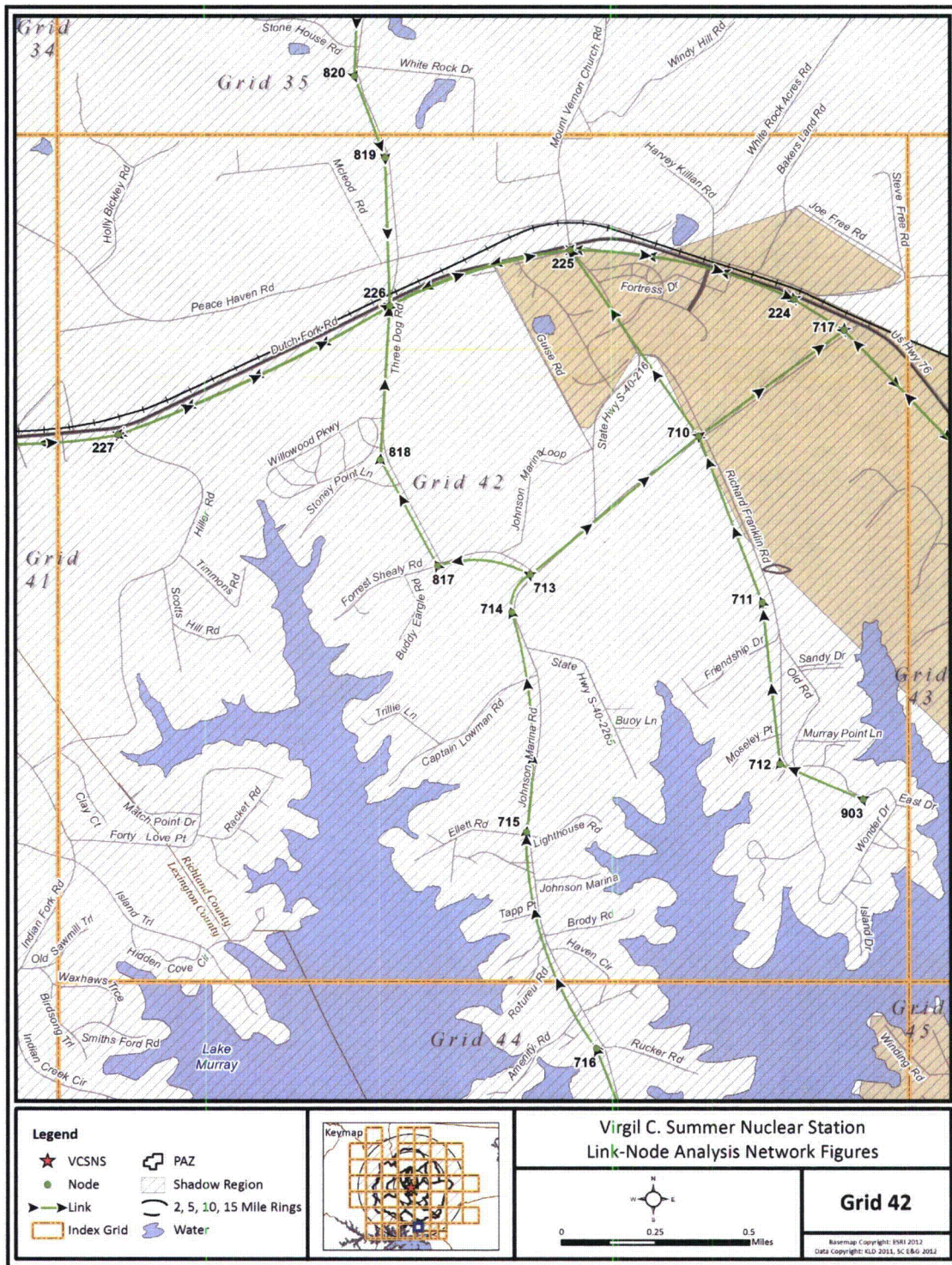**Figure K-40. Grid 39**
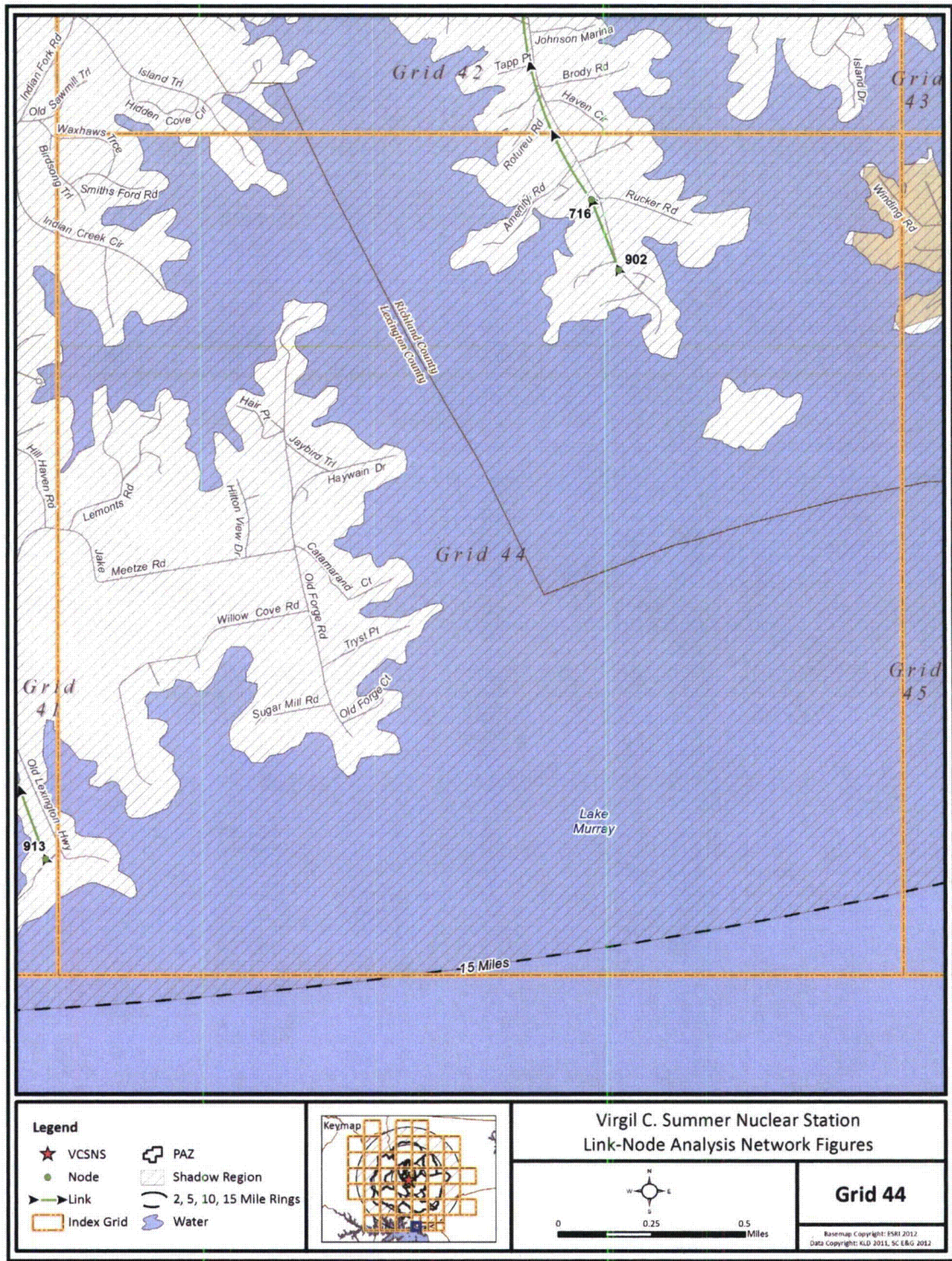
Figure K-41. Grid 40

Figure K-42. Grid 41

Figure K-43. Grid 42
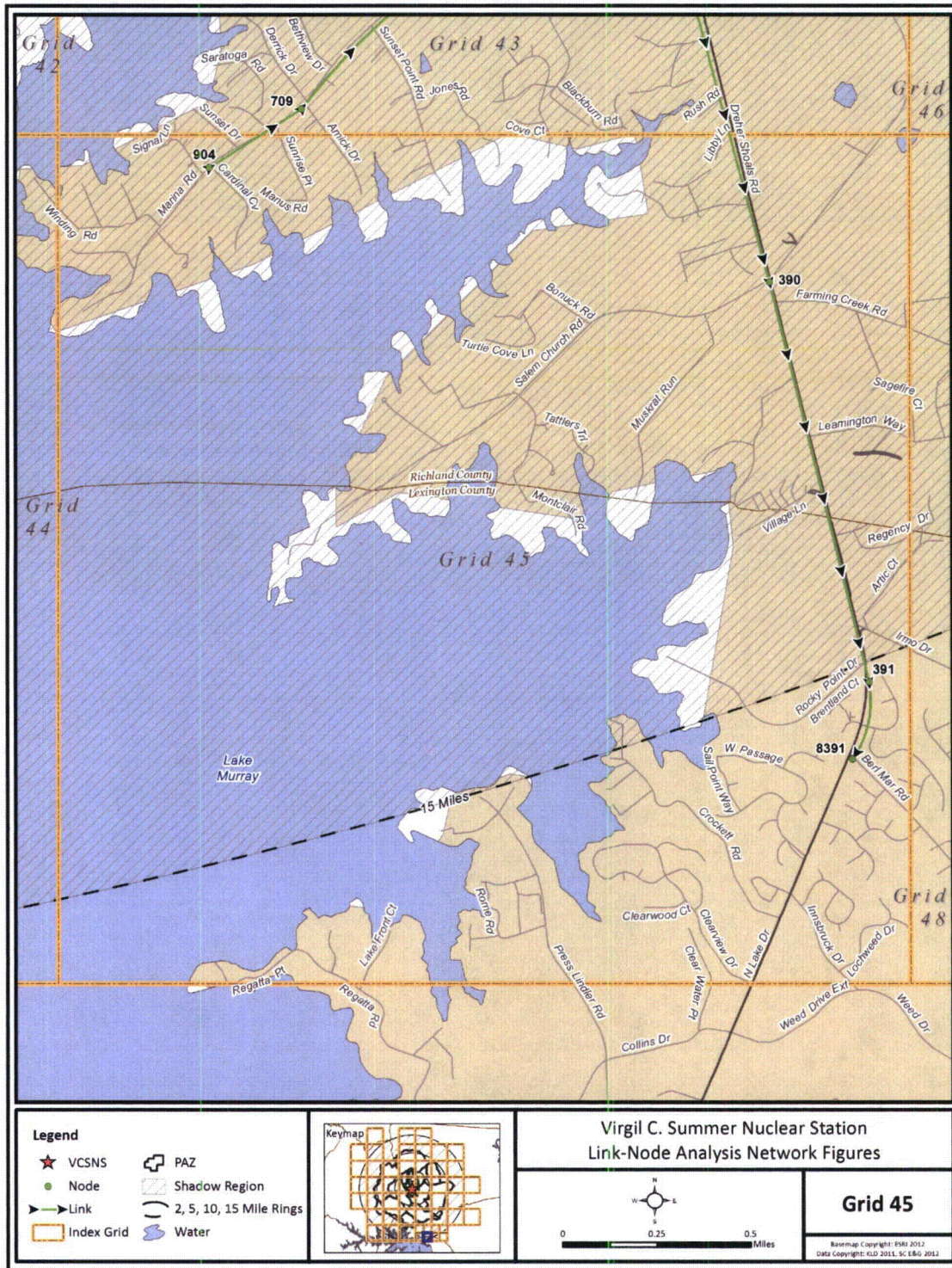
Figure K-44. Grid 43
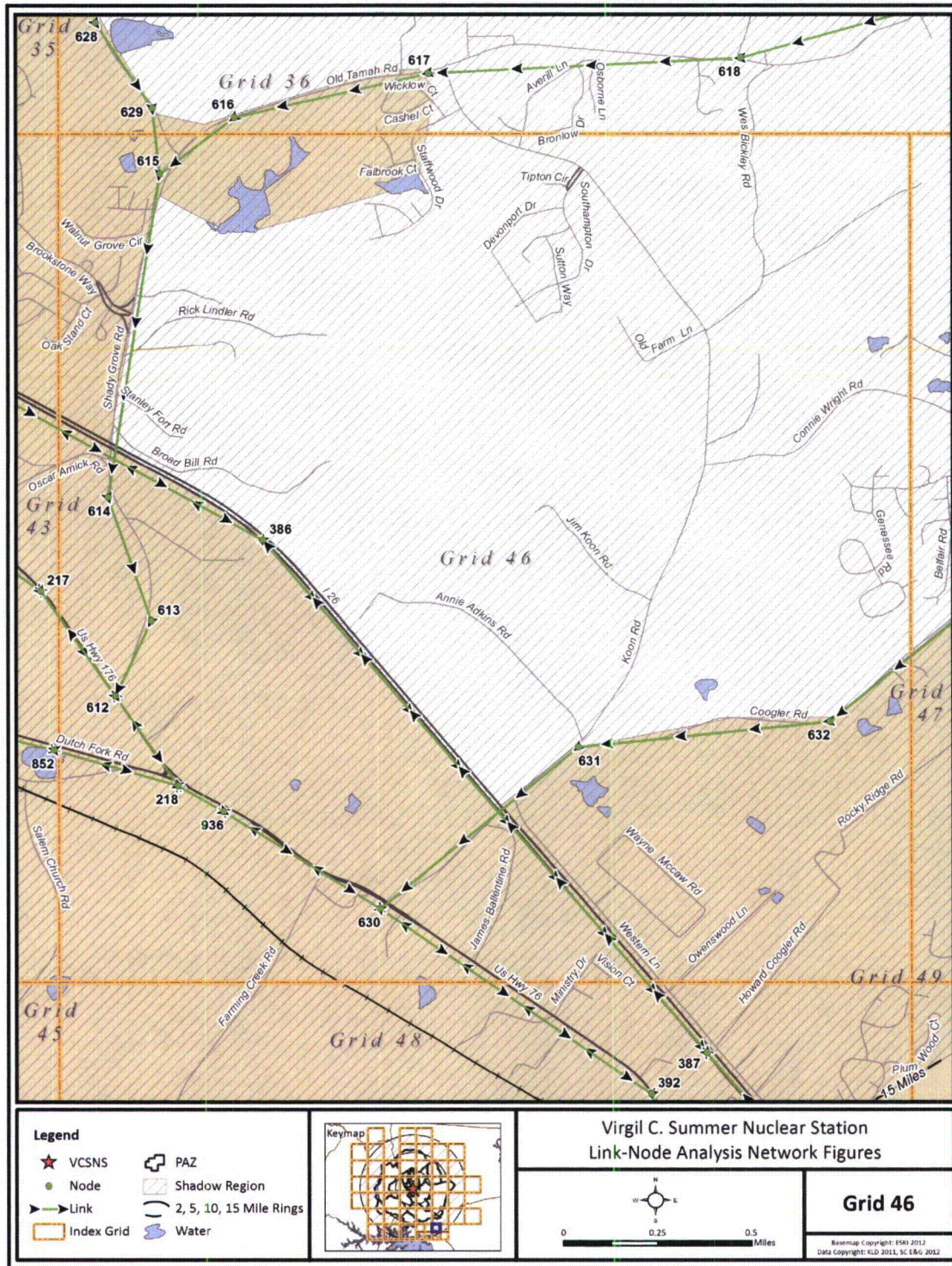
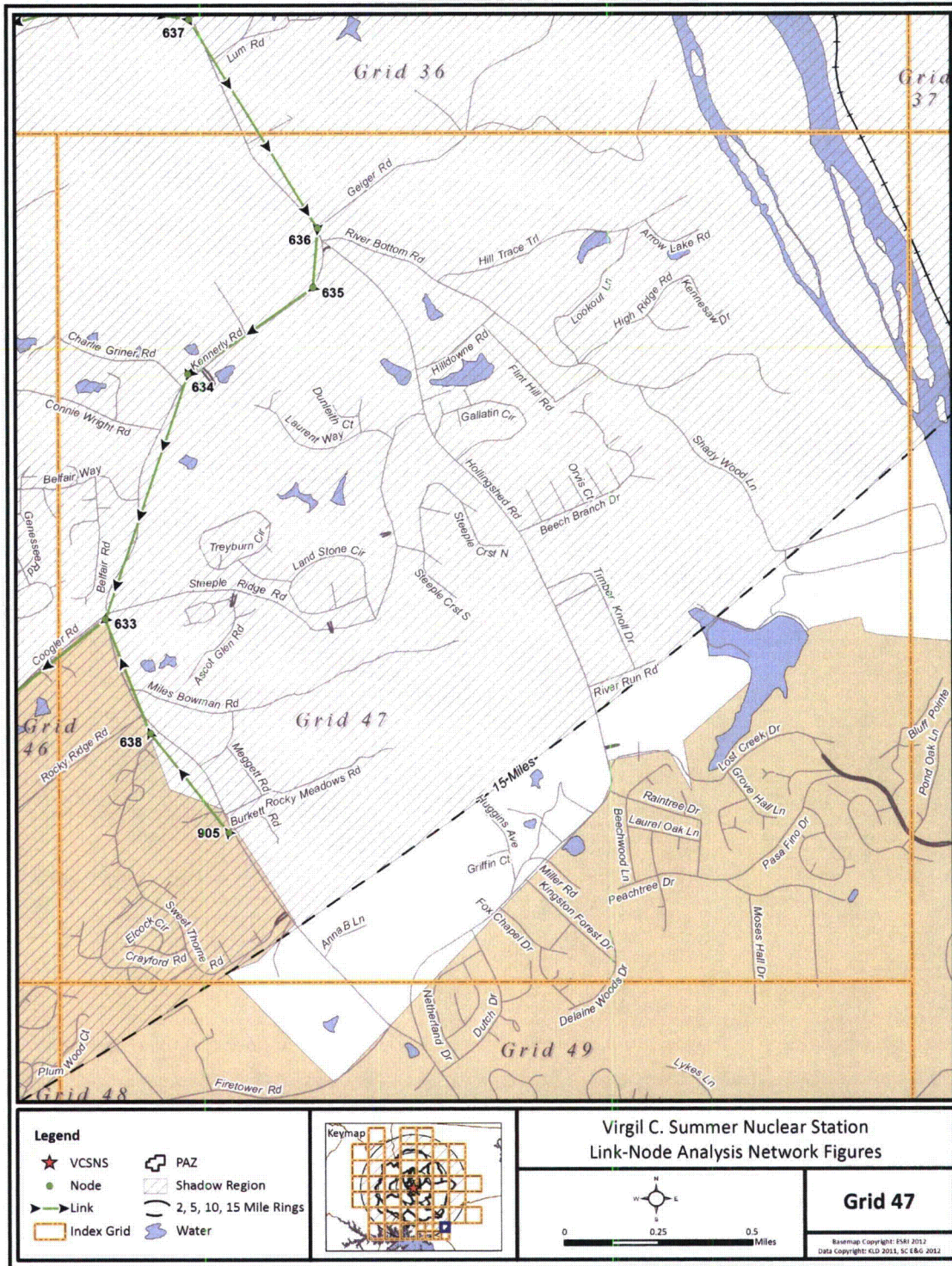Figure K-45. Grid 44
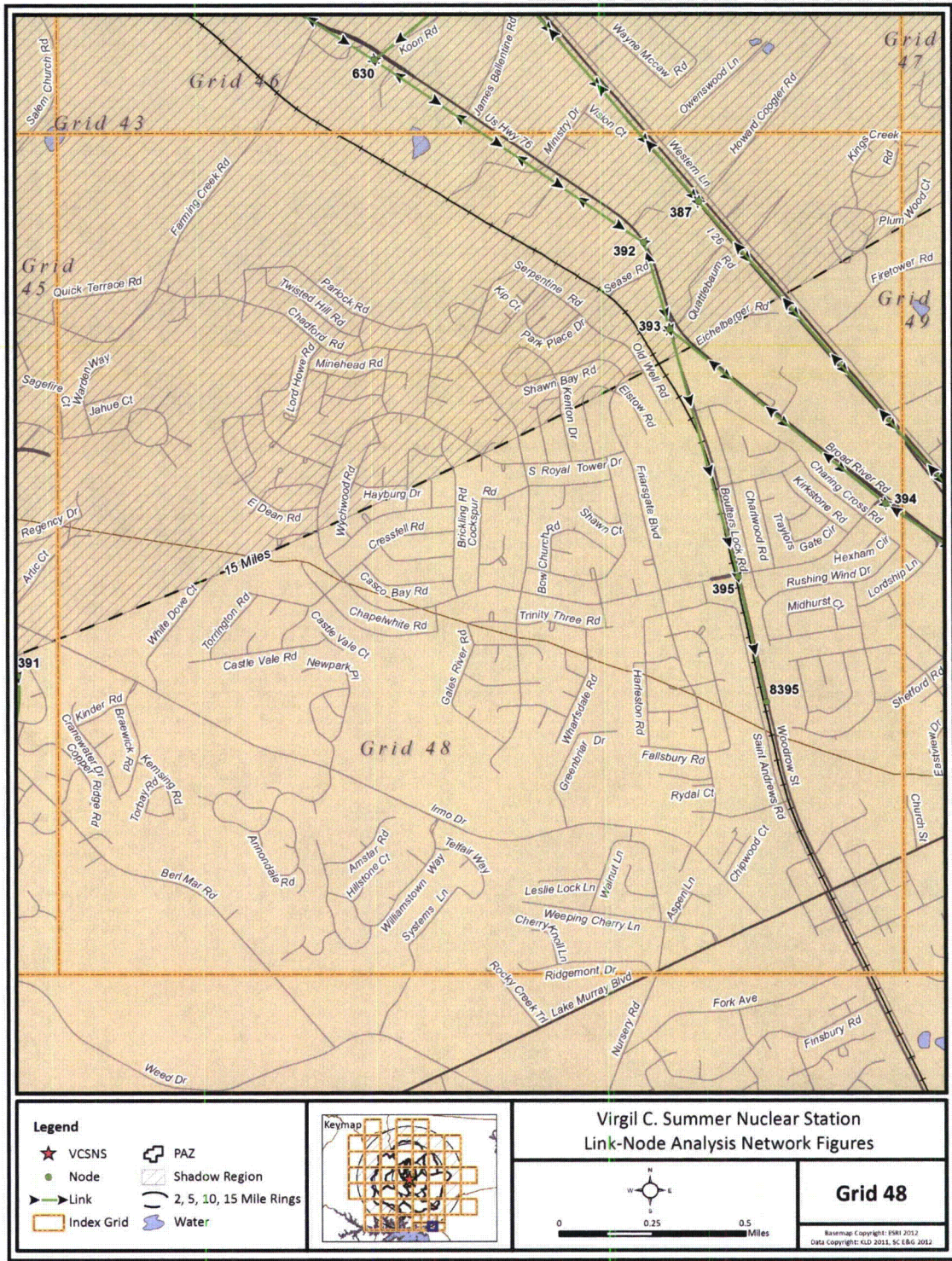
Figure K-46. Grid 45

Figure K-47. Grid 46
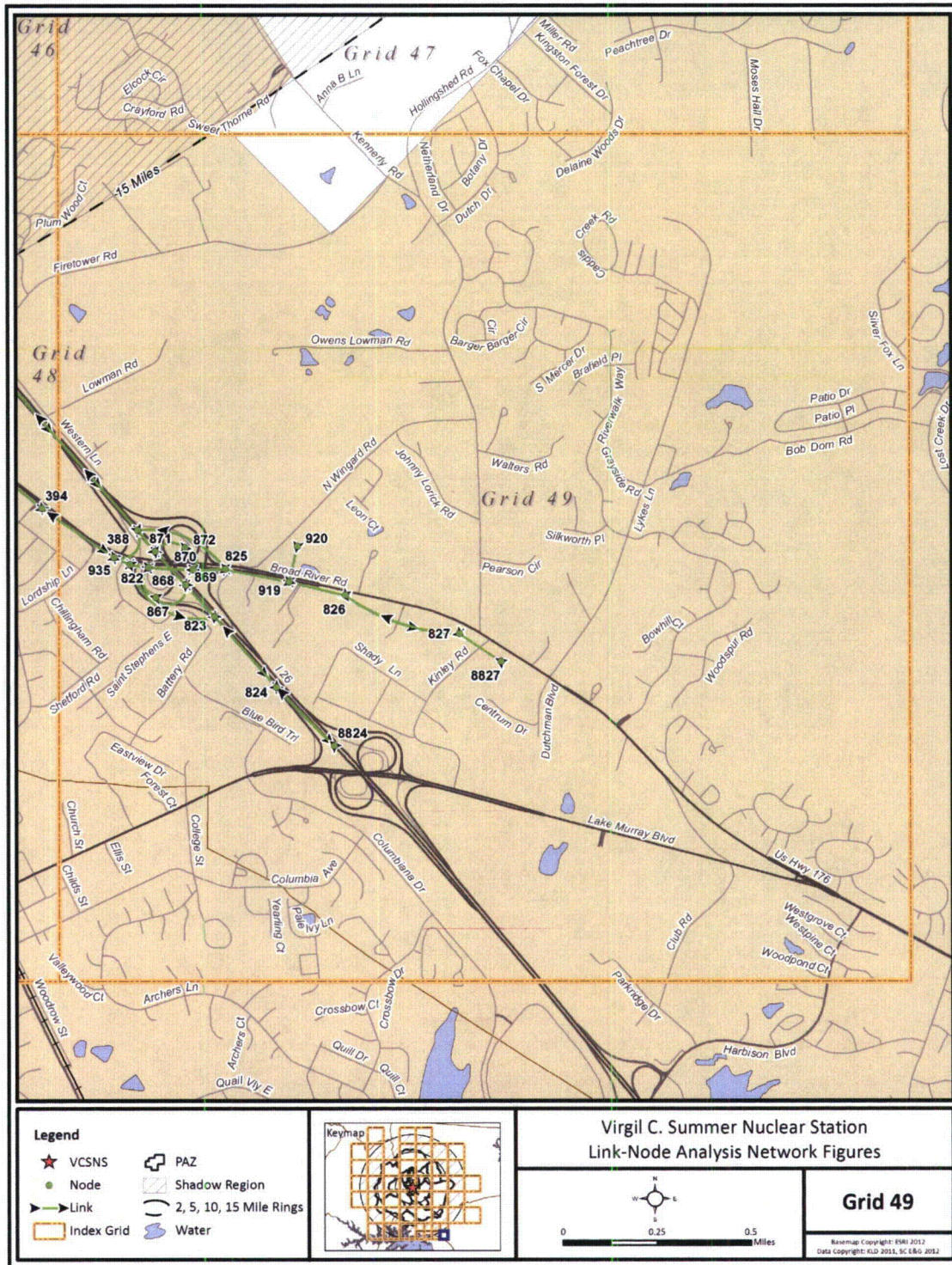
Figure K-48. Grid 47

Figure K-49. Grid 48

Figure K-50. Grid 49