Analysis Summary – Emerging Network
CMCOG - LSCOG

Takeaways:

- Many factors were utilized during the initial identification of a regional emerging network that connect towns, schools, parks, and grocery stores.
- Approximately one-sixth (<20%) of total SCDOT-maintained roadway miles were identified as part of the initial emerging network, which is likely to be trimmed / thinned as we move forward.
- Improving direct access to transit and addressing safety issues will likely play a larger role in the prioritization of the identified corridors (next step), as well as the determining specific near-term projects (final step).
- The equity analysis and bike/ped demand may be more helpful to prioritize *between* several high-priority segments that are relatively important.

Report Writeup:

The emerging network is the first step in developing a regional network plan that crosses many counties, COGs, and regions. This process utilized existing conditions and needs analysis to develop a planning-level, preliminary bike and pedestrian network of state-owned roads. Our objective is to emphasize SCDOT-owned roadways first to develop the framework, and allow our local COG partners to complement this network using their knowledge of local roads, destinations, and feasibility for construction as part of future planning projects.

Summary of the initial emerging network(s):

- CMCOG emerging network includes approximately **771** miles of roadway, compared with 4,650 SCDOT-maintained miles of roadways in the region (17%).
- LSCOG emerging network includes approximately **887** miles of roadway, compared with 5,230 SCDOT-maintained miles of roadways in the region (17%).

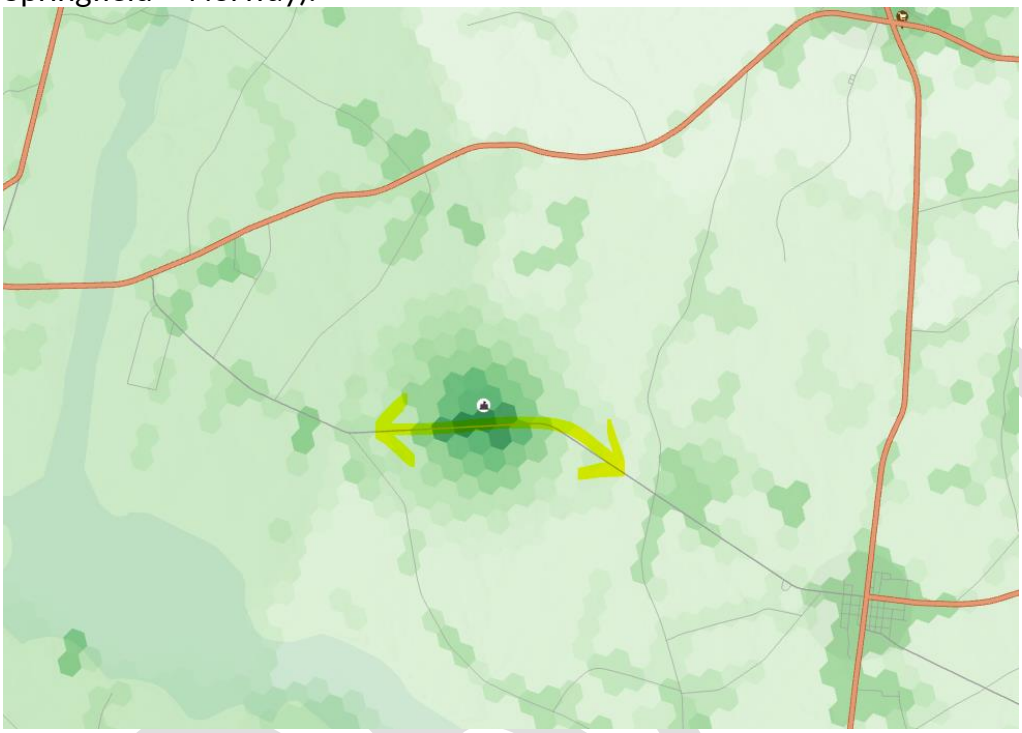
Analysis:

Using ArcGIS software, the project team organized and reviewed the data analysis previously completed under Task 3, notably data resources for: equity, safety, current demand, network connectivity / gaps, and level of traffic stress (LTS).

The project team chose to visually review (toggle the analysis layers on and off) to compare segments of road, seeking the most common routes that overlapped. This

method was preferred as an initial step over a series of 'select by location' queries to add / remove corridors between multiple data resources. The two analysis that proved most useful in determining the initial emerging network included current demand (StreetLight) and LTS because both of these are visual in nature. Example below illustrates the current demand near a school, and the appropriate corridor segment to be added / connected.

Example of current demand used to identify a necessary network connection (between Springfield – Norway):



The trace feature (with snapping to roadway centerlines) was utilized to quickly digitize the emerging network layer as a new, standalone feature class. This is considered an interim step while the project team refines the corridors to be included or excluded. Once the emerging network is reviewed and revised, the select by location tool will be used to select the all the SCDOT LRS segments to create the final version of the emerging network layer with the corresponding roadway data attributes.

Access control corridors were assumed using Route Type = "R-" (ramp), and these corridors were *excluded* from consideration from the emerging network. The boundary between CMCOG and LSCOG was reviewed for consistency and seamless transition.

The initial emerging network was intentionally broad, including corridors that would be thinned, trimmed, or otherwise dropped from consideration during the next round of review (priority corridors).

Prioritization – Early Considerations
As we work to refine the emerging network toward corridors (task 4d) and prioritization of segments (Task 4e), some factors such as safety, LTS, and/or network connectivity will likely play a larger role in determining specific projects as well as prioritization of the identified corridors. Below is an initial list of priority factors to be considered:

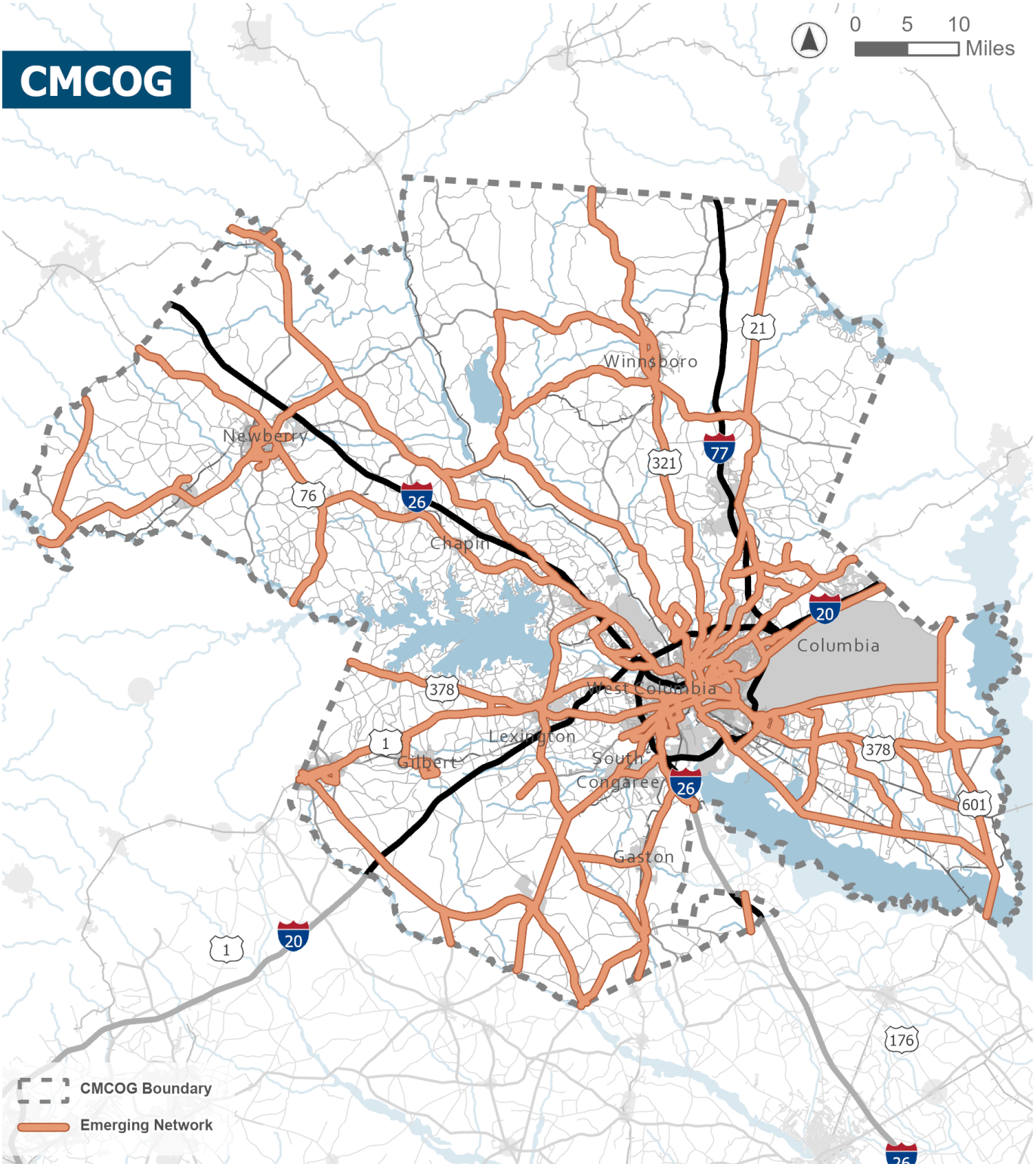
- Higher priority needs – safety, transit, network connectivity/gaps
- Medium priority needs – LTS, estimated (current) demand, destinations (points)
- Lower priority (used as tiebreaker) – equity

Next steps involve the development of a data-informed priority scores and weights for each of the data analysis resources. (criteria). Scores will help objectively guide the narrowing of emerging corridors toward and smaller list of near-term priority needs.

Attachments:

- CMCOG emerging network map
- LSCOG emerging network map

CMCOG – Emerging Network – *DRAFT*:



LSCOG – Emerging Network – DRAFT: