Forest Drive/Eastport Sector Study, 8/31/18 Draft – 11/1/18 Public Hearing

Summary of Traffic Models in Appendix C

Level Of Service (LOS) – Focus on Operations at a Specific Intersection

Existing Condition as of 2017 – Pages C-10 to C-12

- Shows situation "as-is" in 2017 – uses 2017 counts
- No proposed road improvements installed
- No pipeline projects included whether or not approved; impact only reflected if already built and creating traffic when 2017 counts completed (e.g., no Parkside Preserve 130 units; Rocky Gorge 46 units; Enclave at Spa 36units; all adjacent County development over 670 units; 1750 Forest 107,000 square feet commercial;)
- Public's concerns in the sector study questionnaire are validated (Traffic was main dislike and the main area of suggested focus); 2011 County observation "at capacity"
  - 7 overall intersections failing in AM or PM (E or F)
  - 21 individual movements failing in AM or PM (E or F)
  - 27 overall intersections or individual movements already at D
- Not doing a good job long term planning and looking project by project; Why?
  - Old traffic counts not accurate
  - Multiple families and extended families living together
  - Underestimating impact of adjacent County growth
  - No checks and balances on traffic consultant methodology
  - Possibly other reasons ?

- Traffic will get worse even if nothing else is approved. **Huge sense of urgency is needed based on this model result**.

- Planning Commission has to approve projects based on current ordinances and facts, not on assumptions of possible benefits of future non-roadway improvements, behavior change and roadway improvements

- LOOK at the suggested **non-infratructure** "fixes" at page C-28; all questionable and cannot assess impacts on traffic reduction -- it is a risk to keep approving and hoping

"Improved Conditions" Pages C-31 to C-32 Shows Level of Service at Intersections

- Takes Existing Conditions above and adds all possible roadway improvements
- 15 overall intersections or individual movements still at E or F
- 22 overall intersections or individual movements already at D
- Page 31, "dependent on developer funding"; "City capital improvement funds have not yet been established"; State and County "do not identify this sector as a priority area for future road capacity improvement"
  - Why not change County and State attitudes now with the Sector Study results!
- No pipeline development included whether or not approved; impact only reflected if already built and creating traffic when 2017 counts completed

- **Time to engineer solutions and create definitive list of viable projects is NOW**
- Appendix E, page E-14 Beyond 6 Years timeframe: "Work with County to develop a phased plan funding of design and construction of corridor enhancements and capacity improvements..."
- Appendix E, page E-12 In 0-3 Years timeframe: Establish escrow fund to collect for road improvement projects
- Reference October 15, 2018 letter from ANPF and ECA regarding 1) engineering solutions as contemplated by 2009 Comprehensive Plan, and 2) process for getting County and State comments on infrastructure improvements proposed

What is missing in Sector Study for Level of Service Model Runs that MUST be included:

1) Take Existing Condition above shown on C-10 to C-12
   - Add in all the Pipeline Projects (plus some County growth adding sector traffic)
   - **Assume No proposed road improvements are installed**
   - Outcomes will be worse than 2017 Existing Conditions, but how bad ?

2) Take Existing Condition above shown on C-10 to C-12
   - Add in all the Pipeline Projects (plus some County growth adding sector traffic)
   - **Add in all proposed road improvements as if installed**
   - Outcomes will be worse than Improved Conditions shown on pages C-31 to C-32 which has NO Pipeline Projects
3) Provide a list of timeframes and expected traffic volume reduction benefits from each of the suggested **non-infrastructure** "fixes" at page C-28 (Have testimony from ARTMA)

- LOS Outcomes is what Planning Commission uses to assess development approvals
- Will make the entire draft a better planning tool and easier for future public use
- LOS runs were not completed due to budgetary constraints; how much will it cost?
- Critical to have these for 2019 Comp Plan efforts, so pull from that budget as necessary
- If all else fails, City Council must provide the funds the Planning Commission needs

Once we have these two models results to see, and assumptions for the benefits of the **non-infrastructure** "fixes", we may have new discusion in the Sector study. For example:

A) How critical are the needed improvements? How much urgency should go into advancing them?
   a. In May 31, 2018 earlier draft, Page C-27: "Improvements to the network should be planned over the next eighteen years..."
   b. Current draft, page E-14 says starting after 2024 "Work with County to develop a phased plan funding of design and construction of corridor enhancements and capacity improvements as needed by City and County growth."
   c. Page E-13: **"plan for"** improvements at 665/Chinquapin/Bywater/Fairfax 3-6 years; Page C-30: do nothing at this segment if do not first have an additional east bound lane from 665 that merges into a left turn at Hilltop

B) Is a major project moratorium needed until infrastructure projects are taken at least to feasibility stage?
   a. Many of the proposed infrastructure "fixes" listed for years

b. None are even at a feasibility study stage
c. If some are not viable, may rerun the LOS model for partial implementation
d. Get detailed County and SHA comments per October 15, 2018 letter from ANPF and ECA to the Planning Commission on the topic
e. ask County and SHA to come and testify at a future public hearing

Where are we on predicting future traffic issues? Draft Sector Study and other recent development traffic impact studies confirm:

- 2017 Existing Conditions are failing at many locations
- 2017 Improved Conditions are not great, even if every infrastructure improvement is installed -- but not know what levels of service will be a buildout progresses
- Traffic impact studies for recent projects confirm this state of affairs (e.g., September 26, 2016 Traffic Impact Analysis completed for the County as regards the Lidl grocery store; October 2017 Revised Traffic Impact Study for the City as regards Chesapeake Grove (Rodgers Property) development; July 2018 Traffic Impact Study for Village at Providence Point).

Sector Study looks Into the Future By Assessing "Capacity Utilization"

Instead of having level of service models to look at the traffic conditions with a full buildout, the concept of "Capacity Utilization" is inserted into the draft.

Capacity Utilization – **Focus on Roadway Segments, NOT intersection LOS performance;**

- **Not** used in Annapolis' guidelines for traffic impact studies and project approvals
- **Not** used by County or State to approve developments
- Amount of "downtime" experienced during each signal cycle (time during which no vehicles are proceeding through the intersection along the highest volume approach during each signal phase); Presence of unmet demand along each approach (waiting vehicles that are unable to enter the intersection during a green signal phase for that movement).

Roadway segment Capacity Utilization Outcomes all summarized on **Page C-45:**

The "Existing 2017 Conditions" for "Capacity Utilization" shown on Page C-45 is simply the same 2017 Existing Conditions on Page C-10. What does that tell us? As regards comparisons to levels of service, we are not talking "apples to apples"! Being at less than 100% Capacity Utilization does not mean conditions are acceptable. Here are three examples:

A) Page C-45 shows the roadway segment from Bywater to Hilltop operating at "capacity utilization" between 50% and 90% at all times. But in this same segment on Page C-10, there are 2locations where overall intersections are operating at E level of service, 4 individual movements at E or F, and 11 individual movements already at level of service D as of 2017.

B) Page C-45 shows the roadway segment from Hilltop to Tyler operating at "capacity utilization" between 45% and 80% at all times. But in this same segment on Page C-10, there are 5 locations where overall intersections are operating at E or F level of service, 15 individual movements at E or F, and 8 individual movements already at level of service D as of 2017.

C) Page C-45 shows the Spa Road northbound and southbound is operating between 75%-80% "capacity utilization" at all times. However, on Page C-10 these same movements are operating at levels of service E and F.

Concerns with the Capacity Utilization standard being used in the draft sector study:

- "Capacity Utilization" is not a standard used to assess planning or project approval in Annapolis. At 100% capacity for example, there are always more cars still wanting to move through an area which cannot travel through with each light change. Intersections at 100% capacity can still have backups continue to grow, but they are still rated as 100% capacity.

- Caption at C-45 reads: "The above results are based on planning-level analyses. *More detailed analysis and study are required to fully evaluate the future conditions of detailed traffic operations.*" These are the two missing models I have suggested need to be included.

- The Baseline, Mid- and High Scenarios are NOT run with some County growth affecting the sector travel.

- Page C-33 says this model was used "to assess the possible changes in future travel demand and behavior." Need a simple, clear list of assumptions used (e.g., do we assume 20% reduction in commuters who drive? What % of people change habits to now walk, bike, take mass transit, shift to work at home? How many residents take new jobs created on the eastern side of the corridor and no longer drive to work?)

- Pages C-23 and C-35: It may be misleading to conclude the Capacity Utilization findings show "that the networks other road segments accommodate the added volumes projected" because "no additional road link sections have worsened to the point of reaching 100% capacity." But what happens to levels of service deterioration?

Some examples of why conclusions using "Capacity Utilization" are flawed:

- *"The current areas with road capacity issues are still an issue. However, no additional road link sections have worsened to the point of reaching 100% capacity". Page C-23.* In other words, none get as bad as the Chinquapin Round intersection. That should not be a measure of a future quality of life.
- *"Traffic entering and exiting the Forest Drive corridor on the west end will continue to experience delays." Page C-27. "Peak hourly traffic volumes at the west end of the corridor will not worsen, for the portion at capacity..." Page C-27.* True, you cannot get more volume through a section of roadway than 100% capacity utilization in traffic modeling, *but the length of delays and levels of service can keep deteriorating.*
- *"Traffic flow throughout the rest of the corridor [i.e., east of Chinquapin Round] is expected to continue to flow relatively smoothly because of the constrained conditions at the west end of the corridor." Page C-27.* The rationale is the backups at Chinquapin Round as a positive. This conclusion ignores that continually deteriorating conditions on the west end of the corridor will discourage efforts to enter the corridor, impact quality of life, reduce safety, and likely discourage some retail sales and other commercial activity.

Recommendation: Modify APF Ordinance and Guidelines for Traffic Impacts

Appendix D recommends to modify Guidelines for development traffic studies and the APF ordinance to much more subjective standards and alternative mitigation that won't create traffic congestion improvements – **Have not done well with a clear APF standard, so it is not time to loosen that standard and create ambiguity and subjectivity and allow non-traffic mitigation by funding forms of benefits to "transportation, economic development or environment."**

Before this is considered we need 1) feasibility studies on the proposed roadway infrastructure improvements, and 2) estimates of timing for implementation and potential traffic reduction levels for each of the non-roadway improvements identified as worthy of pursuit.

This recommendation merits its own public hearing as it impacts the entire City.

Recommendations For Changes in Draft Four Dated August 31, 2018

1) Add Level Of Service traffic model runs predicting the future for:

- Existing Conditions with all Pipeline being built and no roadway improvements
- Existing Conditions with all Pipeline being built and all the roadway improvements.

2) Once these model results are seen, it may be reasonable to have some runs with only some of the proposed infrastructure improvements being installed. Some are more realistic than others.

3) Encourage written comments from the County and the State Highway Administration on the "public improvements necessary to implement the plan" as required by MD Land Use Code Section 3-203(c). This should be specific comments on the proposed infrastructure improvements. As per the requirements of the 2009 Annapolis Comprehensive Plan, page 33, among the purposes for the required sector studies was to "identify the necessary role of the City and other public entities in facilitating redevelopment, including, for example, infrastructure improvements..." As per the state law, they are to comment on the final version of this Comp Plan amendment which the Planning Commission is recommending for approval, and the City Council is to receive those comments.

4) Accelerate feasibility studies on all roadway improvements into years 0-3. Cannot start developer escrow contributions to recommended improvements first, as is suggested in Appendix E, Page E-12 to 14 (escrow fund starts in years 0-3, but planning for the infrastructure improvements is not until beyond year 6).

5) Provide some estimates of the potential timeframes to implement the non-roadway improvements (Page C-28) and the potential traffic reduction for each potential "fix"

6) Until the viability of the proposed non-infrastructure and infrastructure improvements are confirmed with neighboring jurisdictions, postpone any changes to the Policies and Guidelines for Traffic Impact Analysis For Proposed Development as suggested in Appendix D. It is much to soon to lower standards or allow alternate mitigation options until we know what actual roadway mitigation options exist.

7) Include a discussion on the option of a moratorium for major development for some period of time. Possibly until feasibility studies are completed for the infrastructure fixes. Discuss the risks of not taking this approach as there are so many assumptions in the plan for new infrastructure, new sector employment, new mobility options, and travel behavioral change.

8) The critical gateway at 665/Chinquapin Round needs special focus. Further deterioration may discourage coming into the sector area to shop or pursue other activity. As the "pipeline" of County and City is built out, this entrance to the sector becomes a much more severe bottleneck than it is today. This is the major gateway into the sector study area. Entrance to corridor at 665/Chinquapin/Bywater is failing now and in future. (C-10; C-31).

Despite the fact this section of roadway has failing levels of service and is at 100% volume capacity utilization today, the current draft calls for nothing more than:

- "Work with SHA and the County to plan for future capacity improvements" in this area..." in the 2021 - 2024 timeframe. (Page E-13).

- "Retaining the existing bottleneck by electing not to make improvements that move queues further down the corridor, or Improve PM flows, by providing an additional through lane along EB Forest Drive, beginning along Aris T. Allen Boulevard, and dropping as a second left-turn lane at Hilltop Lane." (Page C-30).

- Accelerate completion of feasibility studies for 665/Chinquapin/Bywater/Fairfax within 12 months as promised in 2009 – not 0-3 years as recommended. Delays in infrastructure implementation increases costs and may reduce ultimate options (e.g., Rocky Gorge access to 665 may limit fixes at Chinquapin Round)
- The sector study area does not include 665, despite the fact that a 2016 County study confirmed the crash rates on this section of roadway "are significantly higher than the statewide average rate" for similar roads. This segment needs to be included for discussion and planning. The backups on 665 and Chinquapin Round will only lengthen, likely interfering with merges onto 665 from Route 2 and Riva Road.