

Appendices

**Funding Forecast Thru 2045
Clarksville MPO Study Area
(Adjusted for KYTC Forecast)**

Year	Total 100.0%	Capacity 60.0%	Reconstruction 15.0%	Enhancements 0.8%	Safety 4.0%	Bridge 11.0%	Overlay 8.0%	Maintenance 1.2%
2017	\$41,375,128	\$24,825,077	\$6,206,269	\$331,001	\$1,655,005	\$4,551,264	\$3,310,010	\$496,502
2018	\$38,720,693	\$23,232,416	\$5,808,104	\$309,766	\$1,548,828	\$4,259,276	\$3,097,655	\$464,648
2019	\$61,403,911	\$36,842,346	\$9,210,587	\$491,231	\$2,456,156	\$6,754,430	\$4,912,313	\$736,847
2020	\$28,749,889	\$17,249,933	\$4,312,483	\$229,999	\$1,149,996	\$3,162,488	\$2,299,991	\$344,999
2021	\$46,909,322	\$28,145,593	\$7,036,398	\$375,275	\$1,876,373	\$5,160,025	\$3,752,746	\$562,912
2022	\$48,406,616	\$29,043,970	\$7,260,992	\$387,253	\$1,936,265	\$5,324,728	\$3,872,529	\$580,879
2023	\$49,952,430	\$29,971,458	\$7,492,865	\$399,619	\$1,998,097	\$5,494,767	\$3,996,194	\$599,429
2024	\$51,548,364	\$30,929,018	\$7,732,255	\$412,387	\$2,061,935	\$5,670,320	\$4,123,869	\$618,580
2025	\$53,196,069	\$31,917,641	\$7,979,410	\$425,569	\$2,127,843	\$5,851,568	\$4,255,686	\$638,353
2026	\$54,897,256	\$32,938,354	\$8,234,588	\$439,178	\$2,195,890	\$6,038,698	\$4,391,780	\$658,767
2027	\$56,653,691	\$33,992,214	\$8,498,054	\$453,230	\$2,266,148	\$6,231,906	\$4,532,295	\$679,844
2028	\$58,467,199	\$35,080,320	\$8,770,080	\$467,738	\$2,338,688	\$6,431,392	\$4,677,376	\$701,606
2029	\$60,339,669	\$36,203,801	\$9,050,950	\$482,717	\$2,413,587	\$6,637,364	\$4,827,174	\$724,076
2030	\$62,273,051	\$37,363,830	\$9,340,958	\$498,184	\$2,490,922	\$6,850,036	\$4,981,844	\$747,277
2031	\$64,269,362	\$38,561,617	\$9,640,404	\$514,155	\$2,570,774	\$7,069,630	\$5,141,549	\$771,232
2032	\$66,330,687	\$39,798,412	\$9,949,603	\$530,645	\$2,653,227	\$7,296,376	\$5,306,455	\$795,968
2033	\$68,459,181	\$41,075,509	\$10,268,877	\$547,673	\$2,738,367	\$7,530,510	\$5,476,735	\$821,510
2034	\$70,657,074	\$42,394,244	\$10,598,561	\$565,257	\$2,826,283	\$7,772,278	\$5,652,566	\$847,885
2035	\$72,926,668	\$43,756,001	\$10,939,000	\$583,413	\$2,917,067	\$8,021,933	\$5,834,133	\$875,120
2036	\$75,270,344	\$45,162,207	\$11,290,552	\$602,163	\$3,010,814	\$8,279,738	\$6,021,628	\$903,244
2037	\$77,690,567	\$46,614,340	\$11,653,585	\$621,525	\$3,107,623	\$8,545,962	\$6,215,245	\$932,287
2038	\$80,189,880	\$48,113,928	\$12,028,482	\$641,519	\$3,207,595	\$8,820,887	\$6,415,190	\$962,279
2039	\$82,770,917	\$49,662,550	\$12,415,638	\$662,167	\$3,310,837	\$9,104,801	\$6,621,673	\$993,251
2040	\$85,436,398	\$51,261,839	\$12,815,460	\$683,491	\$3,417,456	\$9,398,004	\$6,834,912	\$1,025,237
2041	\$88,189,138	\$52,913,483	\$13,228,371	\$705,513	\$3,527,566	\$9,700,805	\$7,055,131	\$1,058,270
2042	\$91,032,047	\$54,619,228	\$13,654,807	\$728,256	\$3,641,282	\$10,013,525	\$7,282,564	\$1,092,385
2043	\$93,968,131	\$56,380,879	\$14,095,220	\$751,745	\$3,758,725	\$10,336,494	\$7,517,451	\$1,127,618
2044	\$97,000,504	\$58,200,302	\$14,550,076	\$776,004	\$3,880,020	\$10,670,055	\$7,760,040	\$1,164,006
2045	\$100,132,380	\$60,079,428	\$15,019,857	\$801,059	\$4,005,295	\$11,014,562	\$8,010,590	\$1,201,589
Stage I								
2018-2026	\$433,784,550	\$260,270,730	\$65,067,682	\$3,470,276	\$17,351,382	\$47,716,300	\$34,702,764	\$5,205,415
Stage II								
2027-2036	\$655,646,925	\$393,388,155	\$98,347,039	\$5,245,175	\$26,225,877	\$72,121,162	\$52,451,754	\$7,867,763
Stage III								
2037-2045	\$796,409,962	\$477,845,977	\$119,461,494	\$6,371,280	\$31,856,398	\$87,605,096	\$63,712,797	\$9,556,920
Total	\$1,885,841,437	\$1,131,504,862	\$282,876,216	\$15,086,731	\$75,433,657	\$207,442,558	\$150,867,315	\$22,630,097

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Federal & State Funding Forecast Thru 2045	
Clarksville Transit System	
	Inflation Percentage
Year	3.00%
2017	\$5,904,592
2018	\$6,081,730
2019	\$6,264,182
2020	\$6,452,108
2021	\$6,645,671
2022	\$6,845,041
2023	\$7,050,392
2024	\$7,261,904
2025	\$7,479,761
2026	\$7,704,154
2027	\$7,935,278
2028	\$8,173,337
2029	\$8,418,537
2030	\$8,671,093
2031	\$8,931,226
2032	\$9,199,163
2033	\$9,475,137
2034	\$9,759,392
2035	\$10,052,173
2036	\$10,353,738
2037	\$10,664,351
2038	\$10,984,281
2039	\$11,313,810
2040	\$11,653,224
2041	\$12,002,821
2042	\$12,362,905
2043	\$12,733,792
2044	\$13,115,806
2045	\$13,509,280
Stage I	
2018-2026	\$61,784,942
Stage II	
2027-2036	\$90,969,074
Stage III	
2037-2045	\$108,340,270
Total	\$261,094,286

Clarksville Transit System									
Historic Funding 2010-2016									
	2010	2011	2012	2013	2014	2015	2016	Total	Annual Average
Revenue									
Federal	\$1,606,980	\$2,033,330	\$2,023,659	\$2,152,200	\$2,145,799	\$2,305,865	\$3,541,455	\$15,809,288	\$2,258,470
State	\$858,916	\$956,477	\$879,800	\$939,156	\$1,053,217	\$1,046,192	\$1,121,690	\$6,855,448	\$979,350
Local	\$1,279,883	\$1,464,413	\$1,665,499	\$1,587,876	\$1,414,146	\$1,877,951	\$1,934,344	\$11,224,112	\$1,603,445
Direct Funds	\$608,837	\$681,076	\$733,477	\$798,708	\$846,403	\$858,944	\$814,169	\$5,341,614	\$763,088
Total	\$4,356,626	\$5,137,307	\$5,304,447	\$5,479,953	\$5,461,579	\$6,090,967	\$7,413,674	\$39,244,553	\$5,606,365
CPI Factor	1.124	1.086	1.064	1.047	1.030	1.032	1.020		
2017 Dollars	\$4,895,035	\$5,579,981	\$5,642,185	\$5,739,955	\$5,625,129	\$6,284,404	\$7,565,457	\$41,332,147	\$5,904,592

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CPI

To account for the time value of money while developing the region's historical average annual funding, historical funding amounts by year were brought to 2017 dollars by using Consumer Price Index (CPI) data provided by the Bureau of Labor Statistics.

The data obtained contains the CPI by month and year from 1980 to 2017 for the south urban region. These values were averaged to a yearly value and then a CPI factor was developed (as shown in the table below) for each year based upon the ratio of that year to 2017. This CPI factor was applied to previous years to adjust the funding in that year to 2017 dollars.

Bureau of Labor Statistics

Consumer Price Index - All Urban Consumers													Average Annual Inflation Rate			
Series Id: CUUR0300SA0, CUUS0300SA0													1980-2017		2.86%	
Not Seasonally Adjusted													1990-2017		2.24%	
Area: South urban													2000-2017		1.96%	
Item: All items													2010-2017		1.38%	
Base Period: 1982-84=100																
Years: 1980 to 2017																
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	Year	2017 FACTORS	Annual Change
1980		78.5		80.6		82.2		82.7		84.2		85.8	81.9	1980	2.899	
1981		87.8		89.0		90.4		91.9		93.0		94.3	90.7	1981	2.618	10.74%
1982		95.1		94.7		97.0		97.6		98.0		97.8	96.5	1982	2.461	6.39%
1983		98.0		98.8		99.6		100.2		101.2		101.3	99.7	1983	2.382	3.32%
1984		102.4		103.1		103.6		104.3		105.1		105.3	103.8	1984	2.288	4.11%
1985		105.7		106.4		107.1		107.6		108.3		108.7	107.1	1985	2.217	3.18%
1986		108.9		107.9		108.7		108.7		109.4		109.7	108.9	1986	2.180	1.68%
1987	110.2	110.7	111.1	111.5	111.8	112.2	112.6	112.9	113.5	113.8	114.1	114.0	112.4	1987	2.113	3.21%
1988	114.1	114.4	114.8	115.4	115.6	116.1	116.6	117.0	117.7	118.2	118.3	118.5	116.4	1988	2.040	3.56%
1989	118.9	119.2	119.8	120.8	121.3	121.7	122.0	122.1	122.5	123.0	123.2	123.4	121.5	1989	1.954	4.38%
1990	124.6	125.4	126.0	126.1	126.5	127.3	127.8	128.7	129.7	130.7	130.9	130.9	127.9	1990	1.857	5.27%
1991	131.4	131.7	131.9	132.1	132.5	132.8	133.0	133.3	133.8	134.1	134.4	134.3	132.9	1991	1.787	3.91%
1992	134.4	134.9	135.5	135.9	136.2	136.7	136.8	137.0	137.3	137.8	138.1	137.9	136.5	1992	1.740	2.71%
1993	138.4	139.1	139.7	140.2	140.7	140.8	140.9	141.5	141.6	142.2	142.3	142.2	140.8	1993	1.686	3.15%
1994	142.5	142.9	143.6	143.8	144.3	144.7	145.0	145.5	145.8	145.9	146.0	146.1	144.7	1994	1.641	2.77%
1995	146.7	147.4	148.0	148.4	148.8	149.1	149.2	149.7	149.8	150.5	150.4	150.3	149.0	1995	1.594	2.97%
1996	151.1	151.5	152.4	153.2	153.5	154.0	154.0	154.1	154.5	154.9	155.1	155.1	153.6	1996	1.546	3.09%
1997	155.7	156.1	156.5	156.7	156.6	157.0	157.0	157.1	157.5	157.8	157.8	157.3	156.9	1997	1.513	2.15%
1998	157.6	157.8	158.2	158.5	158.8	159.1	159.3	159.5	159.8	159.9	159.6	159.6	158.9	1998	1.494	1.27%
1999	159.9	160.0	160.6	161.5	161.6	161.7	162.2	162.6	163.2	163.6	163.5	163.6	162.0	1999	1.466	1.95%
2000	164.1	164.8	166.5	166.7	166.7	167.5	168.0	168.0	168.5	168.5	168.6	168.4	167.2	2000	1.420	3.21%
2001	169.3	170.2	170.6	171.4	171.7	172.2	171.6	171.5	172.2	171.7	171.0	170.3	171.1	2001	1.388	2.33%
2002	170.6	171.0	172.1	173.1	173.2	173.5	173.6	173.8	174.2	174.9	174.9	174.6	173.3	2002	1.370	1.29%
2003	175.1	176.4	177.5	177.4	176.8	177.2	177.3	177.9	178.3	178.1	177.5	177.5	177.3	2003	1.339	2.31%
2004	178.2	179.1	180.1	180.9	182.0	182.9	182.6	182.6	182.8	183.7	183.7	183.3	181.8	2004	1.306	2.54%
2005	183.6	184.7	185.9	187.3	187.3	187.8	188.5	189.4	192.0	192.5	190.7	190.1	188.3	2005	1.261	3.58%
2006	191.5	191.8	192.8	194.7	195.5	196.3	197.0	197.1	195.8	194.7	194.3	194.8	194.7	2006	1.220	3.40%
2007	195.0	196.0	197.9	199.6	200.8	201.7	201.6	201.0	201.7	202.2	203.4	203.5	200.4	2007	1.185	2.91%
2008	204.5	205.1	206.7	208.1	210.0	212.3	213.3	212.4	212.7	210.1	205.6	203.5	208.7	2008	1.138	4.15%
2009	204.3	205.3	206.0	206.7	207.3	209.3	208.8	209.0	208.9	209.3	209.7	209.5	207.8	2009	1.142	-0.40%
2010	210.1	210.0	211.2	211.5	211.4	211.2	211.0	211.3	211.8	212.0	212.0	212.5	211.3	2010	1.124	1.68%
2011	213.6	214.7	217.2	218.8	219.8	219.3	219.7	220.5	220.4	220.0	220.0	219.5	218.6	2011	1.086	3.44%
2012	220.5	221.8	223.3	224.3	223.4	223.0	222.7	223.9	225.1	224.5	223.4	223.1	223.2	2012	1.064	2.12%
2013	223.9	225.9	226.6	226.2	226.3	227.1	227.5	227.8	227.9	227.4	226.8	227.1	226.7	2013	1.047	1.55%
2014	227.7	228.7	230.1	231.3	231.8	232.3	232.0	231.6	231.8	231.1	229.8	228.5	230.6	2014	1.030	1.70%
2015	226.9	227.9	229.3	230.0	230.9	232.0	231.7	231.3	230.9	230.9	230.4	229.6	230.1	2015	1.032	-0.18%
2016	229.5	229.6	231.0	232.0	232.9	233.8	233.3	233.6	234.1	234.3	234.0	234.2	232.7	2016	1.020	1.11%
2017	235.5	236.1	236.2	236.7	236.8	237.3	236.9	237.9	239.6	239.1	238.9	238.5	237.5	2017	1.000	2.05%

Source: https://data.bls.gov/pdq/SurveyOutputServlet?series_id=CUUR0300SA0,CUUS0300SA0

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Line Items

During the public survey conducted in March 2018, the public was asked on how they wish to spend the region's transportation dollars. The results of this question are shown in Chapter 2, Figure 2.6 which show a desire for capacity improvements, safety, and maintenance. The public also displayed a strong desire for additional bike/ped facilities. These facilities have historically been funded in a sparse manner within the region, leading to an increase in capacity funding that would allow for bike/ped facilities to be built at the same time as other capacity projects. These results, combined with historical funding for various improvement types, were used as a guide to allocate funds to the capacity and line item categories as shown on Page F-5 of Appendix F.

IMPROVE Act Projects

The recently passed IMPROVE Act in the State of Tennessee allows the state to raise additional revenue for a variety of transportation projects. TDOT has provided a list of projects, shown below, that could be funded using IMPROVE Act funds when they are available. IMPROVE Act funds would be in addition to those listed in the financial forecast discussed in Chapter 9.

County	Program	Route	Project Description	Length	Project Status	IMPROVE Act Investments
MONTGOMERY	Interstate	I-24	FROM TN STATE LINE TO SR-76 (EXIT 11)	0.01	Pending	\$150,105,000
MONTGOMERY	Maintenance	I-24	"CLARKSVILLE" WELCOME CENTER RENOVATION	0.01	Pending	\$3,000,000
MONTGOMERY	Trade	SR-149/374	SR-374; FROM DOTSONVILLE ROAD TO SR-149, SR-149 FROM SR-374 TO RIVER ROAD (RE-BUDGETED-ROW)	2.9	Pending	\$118,600,000
MONTGOMERY	Trade	SR-374	FROM DOTSONVILLE ROAD TO US-79 (SR-76) (RE-BUDGETED-ROW&STAGE CONST)	2.9	Pending	\$45,100,000
MONTGOMERY	Urban Growth	SR-48	(TRENTON ROAD), FROM SR-374 TO I-24	3.63	Preliminary Engineering	\$36,700,000
				5 Projects	Estimated Total to Completion: \$353,505,000	

Appendix G: Comments Received During the MTP Process

Appendices

TDEC Comments received on July 31st, 2018, regarding the draft MTP. MPO responses are in red.

1. Reduce banner height at the top of the pages to fit more text on the page and shorten the overall document length.

We have spoken with the MPO about this issue and we will explore if this can be done in a timely manner.

2. Table ES.2: One of the prioritization criteria described is the 'Balance Benefits vs. Cost' and in Table 10.3, how are the benefits calculated? How do we know what they are and their value?

A brief description of what the benefits are will be provided within the table in the next draft. The MPO has the worksheets used to calculate these values.

3. Page 1/13: I don't know how to make it simple, but the area is now (at least at this time) having to conduct conformity analysis due to the recent South Coast decision. The paragraph at the bottom of page 1/13 makes it sound like the area just became maintenance.

We will add text that clarifies this in the next draft.

4. Page 1/14: At the top of the page, should we state standards are "lowered", or "made more stringent" instead of "higher"? The second paragraph does not seem to make sense. What is intended here?

The next draft will state "made more stringent" instead. The second paragraph is an error from when the report was changed based on the South Coast decision for air quality. This paragraph will be removed.

5. Are all the objectives in Chapter 3 currently measured such that we can evaluate performance of the MTP?

Some objectives can be measured using data that the MPO has, while others can be obtained from the TDM. However, some objectives are subjective.

6. Page 4/10: Does EPA set CAFE standards as indicated here?

The EPA sets the GHG standards, while the NHTSA sets and enforces the CAFE standards. This will be corrected in the next draft.

7. Table 4.3 appears to have incorrect information on the NAAQS.

A portion of the Nitrogen Dioxide row is missing, affecting the remainder of the table and will be corrected in the next draft.

8. Table 4.5 and description above: What does the word "Test" in the title here mean? Why are these "Test" projects?

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A brief description of the MTP test projects will be added prior to the table for the sake of clarity.

9. Table 6.10: This table looks like it needs column headers.

This will be corrected in the next draft.

10. Page 6/26: This indicates we have hydrogen refueling in Clarksville. Is this true, where?

This information has been updated by the AVF locator since the draft was first submitted. All of the AVF data will be updated to reflect this in the next draft.

11. Page 6/55: The discussion above figure 6.17 may need to reference from “2002 through 2015” instead of “2012 through 2015”; similar for text above figure 6.18.

This will be corrected in the next draft.

12. Page 6/67: The last sentence, consider replacing “burden” with “demand”.

We will make this change in the next draft.

13. Table 8.2: This table indicates a decrease in Collector centerline miles – is this due to reclassification of a roadway in the future?

This is a result of the realignment of Oakland road in the Existing + Committed projects. The original alignment is removed from the network and the new alignment is shorter than the original.

14. Table 8.2: This table may have an error – the bottom 2 sections have the same title – the bottom sections may need to be “delay”.

This will be corrected in the next draft.

15. Table 8.3: This table appears to be duplicated in part.

This will be corrected in the next draft.

16. The picture on page 8/21 appears to not be from the U.S. – the bike lane traffic is going in the wrong direction.

We will select a new picture for the next draft.

17. Page 8/32: What is a DMU vehicle?

This acronym will be spelled out in the next draft.

18. Page 8/33: second bullet – slowest rate compared to what? The statement is not clear.

This will be clarified in the next draft.

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19. Table 8.10: Third column, should this be “To”?

This will be changed in the next draft.

20. Page 8/39 Why is rail growth out to only 2040, not 2045?

The data provided by TDOT through Transearch only covers the years 2012 and 2040. This will be clarified in the next draft.

21. Page 9/5: Is the statement at the bottom of page 9/5 about the MPO not receiving CMAQ funds – is this correct?

This is an error from when the report was changed based on the South Coast decision for air quality. This paragraph will be removed.

22. Section 10.1: does the TDM forecast of congestion also inform project identification for future projects? How is this information used in project prioritization?

The congestion forecast was not used to identify potential test projects, which instead relies on public input, state agencies, and the MPO. However, the reduction of congestion based on TDM model runs is used in project prioritization.

23. Table 10.3: The row regarding points for minority and low income groups – this should point out that the impact, as indicated here, is a negative impact. What happens if the impact is positive? Does the project gain additional points?

This is addressed by a special note in Table 10.2. This note will be added to the end of Table 10.3

24. Page 11/29: In the call-out box on the right, isn't this more than 4 times the state average?

This will be corrected in the next draft.

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TDOT Planning Comments received on August 7th, 2018, regarding the draft MTP. MPO responses are in red.

PIN 124656.00, widen I-24 from TN state line to SR-76 (Exit 11). This project probably will be let by the end of 2021, but it's on Page 11/15 of the MTP as a Visionary Project. Total cost is about \$130,000,000. Should it remain visionary?

If this project is let by the timeframe anticipated, the MTP can be amended to include it in the appropriate stage. The cost of the project would have precluded other beneficial projects from being scheduled in Stage II.

PIN 124659.00, I-24 Clarksville Welcome Center Renovation. 0.1 miles. Total cost is around \$3,250,000 and probably will be let by the end of 2022. I didn't find it in the MTP.

This project would be covered under the Enhancement Line Item and can be programed in the TIP at the appropriate time.

PIN 123071.00, SR-48 from near SR-374 to near I-24. Recently we've increased total project cost to \$46,400,000.

This will be updated in the next draft.

PIN 101285.02, SR-112 (US-41A) intersection improvements at SR-76 in Clarksville. This has a spring 2019 letting but I couldn't find it in the MTP.

This project can be added to the list of potential intersection projects in Chapter 10, which will allow it to be included in the TIP.

We added a couple of pedestrian projects at the end of last year. I don't know where you'd put them in your MTP. PIN 126901.00 is a \$2,000,000 11,800 foot sidewalk on the E. side of SR-12 from Quinn Road to the KY state line, including 50 ADA ramps and 8 pedestrian signals. PIN 126902.00 is 9,300 feet of 5-foot sidewalk along both sides of SR-13 from S. of Center Pointe Road to Holiday Drive. It has 4,900 feet of drainage, 150 ADA ramps, and 12 pedestrian signals. Cost is around \$5,000,000. Both are enhancement-type projects managed by TDOT.

These projects can be funded through the Enhancement Line Item. These projects would be programmed in the TIP since the money is identified in the MTP.

Appendices

TDOT Comments received on September 7th, 2018, regarding the draft MTP.

Comment Number	Document Page No.	Comment	MPO Response	Final TDOT Response September 7, 2018
Required Changes- Items related to rules, regulations, eligibility, and factual information that must be addressed				
1	General	<p>The MPO's metropolitan planning area, as defined by agreement between the MPO and the Governor, includes the entirety of Montgomery County, Tennessee, including the portion which covers Fort Campbell. The MPO is responsible for carrying out the metropolitan transportation planning process across the entirety of the metropolitan planning area, again, including the portion of the MPA which covers Fort Campbell.</p> <p>It appears that the MPO is accounting for the transportation impacts of the Fort in its planning process, including the traffic generated by the Fort (captured through the travel demand model at external stations located at the entry/ exit gates to the Fort), and through coordination and consultation with Fort Campbell's planners. However, it looks like there are opportunities to clarify the impact of the Fort on the region, such as identifying the Fort as a major employment center in the region.</p> <p>Accordingly, TDOT recommends that the MPO clarify in the MTP that the planning process is being carried out across the entire MPA, not just the "study area" which excludes the Fort. This could be done through a narrative explaining how the MPO coordinates with the Fort and considers the Fort in planning for the region, and the limited role the MPO plays in addressing infrastructure planning for the Fort. This should also be done through clearer maps which address the entire MPA,</p>	<p>The report figures will be updated to change references of Study Area Boundary to Travel Demand Model Boundary. Additional map features will add the boundary for Fort Campbell within the MPA, and an overall MPA boundary.</p> <p>Where possible, additional information about Fort Campbell will be added in the next draft of the report. A note will also be left in chapter about why Fort Campbell is excluded from the TDM area.</p>	<p>As I understand it, Ft. Campbell isn't excluded from the TDM area, the traffic is captured at the external stations.</p>

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Comment Number	Document Page No.	Comment	MPO Response	Final TDOT Response September 7, 2018
Required Changes- Items related to rules, regulations, eligibility, and factual information that must be addressed				
1. <i>continued</i>	General	including the Fort (the MPO might consider shading the Fort in a way to represent the unique situation in this area). TDOT also recommends the MPO move away from defining a “study area” that differs from the MPA, as this appears to create confusion and gives the impression that the MPO is not planning for the entirety of the MPA. The study area represents a modeling network and should be represented and explained as such.		
2.	3-8	<p>The MPO needs to include the PMs adopted to date, including baselines, and a discussion of how the Plan’s policies, programs, and projects support the States’ targets. At a minimum this should include the information in the MTP Addendum submitted to TDOT for the current Plan. Since the MTP will be adopted by the Executive Board after November 16, 2018, the MPO may want to consider including PM2 and PM3 so that the Plan doesn’t need to be amended right after adoption.</p> <p>Refer to 450.324 - Development and content of the metropolitan transportation plan – in the May 27, 2016 Planning Rule.</p>	<p>The adopted performance measures and their targets are included in Chapter 6. The MPA’s baseline performance is also covered in the chapter.</p> <p>An additional section will be added at the end of Chapter 6 that summarizes the baseline performance and targets.</p> <p>The PM2 and PM3 TPMs that Clarksville is subject to are also included in the performance measure tracking.</p> <p>450.324 will be referred to in the next draft.</p>	OK

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Comment Number	Document Page No.	Comment	MPO Response	Final TDOT Response September 7, 2018
Required Changes- Items related to rules, regulations, eligibility, and factual information that must be addressed				
3.	Chapter 9	<p>Fiscal Constraint – Refer to 450.324 - Development and content of the metropolitan transportation plan – in the May 27, 2016 Planning Rule.</p> <p>Page 9.15 - How did the MPO develop these numbers and reach these conclusions? There is no historical information presented, nor is there a discussion of inflation factors or the methodology used. No information for local governments is included. What is the amount and source of local match for roadway and associated improvements?</p> <p>Where are the current and projected O&M costs for roadways, bikeways, greenways, sidewalks, and transit? This information is needed for all jurisdictions, including TDOT and KYTC. What is the source of the funds used to pay for O&M costs?</p> <p>There is no mention of the IMPROVE Act other than for public transit on page 9-14. This Act is having a significant impact on state and local funding, and is allowing projects to be accelerated.</p> <p>The MPO may want to refer to the Johnson City MTPO's 2045 MTP adopted earlier this year, specifically Chapter 5 and Appendix II.</p>	<p>450.324 will be referred to in the next draft.</p> <p>Additional information about the transit funding will be added to Page 9.15. An Appendix will be added that shows the historic funding data received from CTS and forecast development.</p> <p>The development of the O&M costs and their relationship to the line item funding will be described in Chapter 11 and Appendix F.</p> <p>The IMPROVE Act will be referenced on Page 9-5 in the next draft.</p>	OK
4.	Chapter 11	<p>Pages 11-3 thru 11-9 - Why don't the total costs of Tables 11.3, 11.4, and 11.5 reconcile with the Estimated Fiscally-Constrained MTP Project Costs for each Stage from Table 11.1? This does not demonstrate fiscal constraint.</p>	<p>Table 11.1 reflects only the roadway capacity projects in the study area. It will reflect the capacity projects and line items in the next draft.</p> <p>Fiscal constraint for the line item funding will be addressed in the next draft.</p>	OK

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Comment Number	Document Page No.	Comment	MPO Response	Final TDOT Response September 7, 2018
Required Changes- Items related to rules, regulations, eligibility, and factual information that must be addressed				
5.	Chapter 11	<p>PIN 124656.00, widen I-24 from TN state line to SR-76 (Exit 11). This project probably will be let by the end of 2021, but it's on Page 11/15 of the MTP as a Visionary Project. Total cost is about \$130,000,000. Should it remain visionary? If it's being let in 2021, it will need to go in the new TIP. Including it now in the fiscally constrained list will keep the MPO from having to do a Plan amendment and new CDR next year.</p> <p>PIN 124659.00, I-24 Clarksville Welcome Center Renovation. 0.1 miles. Total cost is around \$3,250,000 and probably will be let by the end of 2022. I didn't find it in the MTP. If it's being let in 2021, it will need to go in the new TIP and needs to be in the MTP.</p> <p>PIN 123071.00, SR-48 from near SR-374 to near I-24. Recently TDOT increased total project cost to \$46,400,000.</p> <p>PIN 101285.02, SR-112 (US-41A) intersection improvements at SR-76 in Clarksville. This has a spring 2019 letting but isn't in the MTP.</p> <p>Inclusion of these projects will obviously change the Financial Plan.</p>	<p>If PIN 124656.00 is let by the timeframe anticipated, the MTP can be amended to include it in the appropriate stage. The cost of the project would have precluded other beneficial projects from being scheduled in Stage II. This project can be included in Stage II if desired, but it will change Stage II and Stage III.</p> <p>PIN 124659.00 would be covered under the Enhancement Line Item and can be programed in the TIP at the appropriate time.</p> <p>The cost for PIN 123071.00 will be updated in the next draft.</p> <p>The project for PIN 101285.02 will be included in Table 10.7.</p>	

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Comment Number	Document Page No.	Comment	MPO Response	Final TDOT Response September 7, 2018
Questions/Comments - Items for clarification or further consideration				
6.	Executive Summary	Excellent Executive Summary.	Thank you	
7.		Overall this is a very well written, easy to read Plan. Good use of graphics to illustrate the points discussed in the text. "A picture is worth a thousand words."	Thank you	
8.	1-18	<p>1st paragraph – MPOs aren't required to set their own targets. They may adopt the State's. This is correctly stated in Chapter 6.</p> <p>Why doesn't Table 1.2 include the MPOs' Target Required Date?</p> <p>State Target Setting – July 2, 2017 – State Highway Safety Offices report the 3 identical HSIP targets in the HSP to NHTSA. August 31, 2017 – State DOTs report 2014-2018 HSIP targets in the HSIP Annual Report to FHWA.</p>	<p>The first paragraph will have a change to reflect the proper information on TPM targets.</p> <p>Table 1.2 does not contain the MPO's Target Required Date since it is affected by two states.</p> <p>The state submission deadlines for their targets are discussed in Chapter 6.</p>	OK
9.	1-21 and General	<p>1.3 – Does the Clarksville area exhibit these trends? If so, how do the trends impact transportation and mobility, both now and in the future?</p> <p>Throughout the MTP there's a lot of discussion of requirements, trends, and issues at the Federal and national levels. The Plan could be enhanced by providing examples of how Federal requirements are applied and implemented locally, and indicating if the Clarksville area exhibits trends not in line with national trends.</p>	Where possible, this will be addressed in the next draft.	OK

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Comment Number	Document Page No.	Comment	MPO Response	Final TDOT Response September 7, 2018
Questions/Comments - Items for clarification or further consideration				
10.	1-25	<p>1st paragraph – Chapter 3 is Visioning and Performance Measures.</p> <p>2nd paragraph – There’s no mention of the AQ conformity process and review by the IAC. Just to clarify, the MPO adopts the Plan, and the Federal agencies approve the CDR. Neither TDOT nor FHWA/FTA/EPA approves the Plan.</p> <p>3rd paragraph – TN doesn’t currently have an administrative adjustment process for Plans. Also applies to 1st paragraph in the block on p. 1-26.</p>	<p>The first and second paragraphs will be corrected in the next draft.</p> <p>References to administrative adjustment will be removed in the next draft.</p>	OK
11.	1-26	Last sentence – mention of TIP amendments and adjustments probably isn’t necessary since this is a discussion of the MTP.	This change will be in the next draft.	OK
12.	1-27	It may help to clarify that the TIP is a 4-yr. document that is updated every 3 yrs.	This will be changed for the next draft.	OK
13.	2-6	The process is somewhat different with air quality conformity.	This change will be in the next draft.	OK
14.	2-11	Kudos on the number of responses to the survey. To what does the MPO attribute the increase from the previous Plan survey?	Electronic social media	OK
15.	2-12	2% for walking or biking for recreational or health purposes seems low. How does this number compare to the statewide percentage?	<p>This is based on responses to the public survey, for which this question was specifically created. Statewide and national percentages were unavailable for comparison. Research from the ACS shows that just over 4% of work trips in the MPA counties are by walking or cycling.</p>	OK

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Comment Number	Document Page No.	Comment	MPO Response	Final TDOT Response September 7, 2018
Questions/Comments - Items for clarification or further consideration				
16.	2-13	2.2 - Was the question “What is your primary method of transportation?” or “What is your primary method of transportation to work or school?” Those are two different questions that could elicit different responses.	The question asked as part of the survey was “What is your primary method of transportation.” This was meant to cover all trips within the MPA, including shopping and personal trips.	OK
17.	2-16	Are there projects to address on congestion and safety on Wilma Rudolph Blvd.? 3rd bullet – do not support efforts?	There is a section at the end of Chapter 11 that recommends a study on Wilma Rudolph Blvd to address these concerns. The third bullet will be corrected in the next draft.	OK
18.	3-4	What is a Blueway? Not familiar with that term.	This term will be clarified in the next draft.	OK
19.	4-10	Last sentence – numeric outputs that may be utilized? are utilized? This may be a good place to discuss the Clarksville area’s air quality history and status.	The change to the last sentence will be in the next draft. A quick section on the region’s air quality history and status will be included in the next draft.	OK
20.	Chapter 4	The MPO may want to consider placing this chapter later in the document. At this point in the Plan, the reader isn’t familiar with the projects in the tables and how they were derived.	This chapter could be moved to between Chapters 10 and 11. Optionally, a sentence can be added that refers the reader to Chapter 10 to explain these projects.	OK

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Comment Number	Document Page No.	Comment	MPO Response	Final TDOT Response September 7, 2018
Questions/Comments - Items for clarification or further consideration				
21.	4-35	2nd sentence – is this a true, scientifically based statement? Is human behavior the only cause of the increase in GHGs?	This sentence was improperly worded and will be adjusted in the next draft.	OK
22.	5-8	Any reason(s) why Montgomery is growing and Christian is not?	State income tax, housing, schools and other quality of life	OK
23.	5-9	Table 5-2 is just dropped into the document with no discussion or mention in the main text.	A line will be added at the end of the paragraph before to introduce this table.	OK
24.	5-11	Why isn't Ft. Campbell on the list of Largest Employers? It's mentioned on 5-13. Table 5.3 should be Largest Employers in the MPA. Refer to Comment #1. Review tables throughout the document to make sure the MPA is captioned and accurately represented.	It is not included in the Clarksville Area Chamber of Commerce Table, which is the source for Table 5.3 The employment for Fort Campbell will be added to this table in the next draft.	OK
25.	5-17	Why aren't Hankook Tire and Trane considered specialized freight-generating industries?	Specialized freight generating industries are based on location quotients, which compare a disproportionate amount of employment in an industry when compared to the state or nation.	OK
26.	6-29	PlanGo isn't the current Statewide Plan.	This will be updated in the next draft.	OK
27.	6-30	No distinction between a bike lane and a buffered bike lane?	This will be added in the next draft.	OK
28.	6-35	Clarksville Greenway and Blueway Master Plan info is in Figure 6.11, not Figure 6.12.	This will be updated in the next draft.	OK

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Comment Number	Document Page No.	Comment	MPO Response	Final TDOT Response September 7, 2018
Questions/Comments - Items for clarification or further consideration				
29.	6-39	Can Fig. 6-13 be made larger?	This figure will be enlarged in the next draft.	OK
30	6-36 & 6-41	What are the items labeled “Existing” and “Proposed” in the legend of these two figures?	Bike and Ped facilities	OK
31.	6-43	Can Fig. 6-15 be made larger?	This figure will be enlarged in the next draft.	OK
32.	6-44	Is Clarksville Greenway really 9 mile long? It looks closer to 5 on Google.	Alltrails.com and the City of Clarksville website list the trail at 9 miles. This can be corrected if it is determined to be wrong.	OK
33.	6-45	“The KYTC has a policy that requires consideration of incorporating pedestrian and bicycling facilities on any new, or reconstructed, state-maintained roadways.” – TDOT’s Multimodal Access Policy requires the same consideration on TN roadways.	This will be added to the next draft.	OK
34.	6-53	Isn’t Exit 8 the Rossvie Rd exit? The first two paragraphs on this page seem redundant. Also, which grant funds this shuttle? CMAQ?	These paragraphs will be consolidated and adjusted in the next draft.	OK
35.	6-55	Figure 6.17 shows fixed route ridership from 2002 to 2015, not 2012.	The text in the report will reflect the correct years in the next draft.	OK
	6-56	Same for Figure 6.18 and Lift ridership		
36.	6-57	Footnote 6: NTA or NTD?	This will be corrected in the next draft.	OK
37.	6-67	The 2nd sentence is confusing. Average age or % of population?	This will be corrected in the next draft.	OK

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Comment Number	Document Page No.	Comment	MPO Response	Final TDOT Response September 7, 2018
Questions/Comments - Items for clarification or further consideration				
38.	6-82	Can labels be added to the rail lines displayed in Figure 6.27? The narrative only mentions two lines, but there are three shown within the MPA.	This will be added in the next draft. The third rail line serves the airport and Fort Campbell and will be adjusted to reflect the proper terminus within the MPA.	OK
39.	6-88	Table 6.27 displays the breakdown of alcohol involvement for crashes, not Table 6.26	This will be corrected in the next draft.	OK
40.	6-88	Should the first column in Table 6.27 be renamed?	This will be corrected in the next draft.	OK
41.	6-93	Table 6.30 shows the ten segments with the highest crash frequencies, not 6.29.	This will be corrected in the next draft.	OK
42.	6-93	Table 6.31 shows the ten segments with the highest crash rates, not 6.29.	This will be corrected in the next draft.	OK
43.	6-93	Table 6.32 shows the ten intersections with the highest crash frequencies, not 6.31.	This will be corrected in the next draft.	OK
44.	6-93	Figure 6.29 illustrates the locations with highest crash frequencies and rates, not 6.30.	This will be corrected in the next draft.	OK
45.	6-110 – 6-116	Very good section on Safety and Security, tailored to the area.	Thank you.	OK
46.	7-11	E+C – How is committed funding defined? Programmed in TIP or local CIPs? Constructed or open to traffic? Last sentence – why was it assumed that Gateway Medical Center would not undergo a significant expansion when the medical field is a growing industry and Montgomery Co. is a growing county?	The E+C funding will be further defined in the next draft. The Gateway Medical Center is not expected to undergo a significant expansion at its current location due to the buildup around it and lack of ability to expand outwards.	OK

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Comment Number	Document Page No.	Comment	MPO Response	Final TDOT Response September 7, 2018
Questions/Comments - Items for clarification or further consideration				
47.	8-1	Same paragraph repeated twice at beginning of chapter 8.	This will be corrected in the next draft.	OK
48.	8-21	Bike/Ped recommendations are in Figure 6.11, not 6.12.	This will be corrected in the next draft.	OK
49.	8-22	“The Clarksville Cycling Club provided a detailed list of recommendation, shown in the Appendix...” – Which appendix?	This will be corrected to show Appendix D in the next draft.	OK
50.	8-26	“Pedestrian signal heads and mid-block crossings should be employed where volumes are high.” – Does the MPO or the City conduct pedestrian counts?	Not at present.	OK
51.	8-33	Does KYTC have any truck counts for Christian County?	This data was requested from KYTC and we were informed that it was not available.	OK
52.	8-40	The official name of the RTA is the RTA of Middle Tennessee. Also, “studies are currently being conducted” for the feasibility of rail in the area. What studies are currently being conducted? The Northwest Corridor Study was finalized years ago, and TDOT is not aware of any on-going studies. If there are, please list them.	This will be corrected in the next draft.	OK
53.	8-41	<p>“The inclusion of a general-purpose port would eliminate these costly trips and reduce traffic.” – A new port wouldn’t really eliminate trips, would it? It may be more accurate to say it would shift the mode of a number of trips.</p> <p>Suggested re-write of sentence under Port Service – “This addition has also been identified as a project in TDOT’s state freight plan.”</p> <p>Isn’t the reason the Clarksville Regional Airport has no scheduled commercial flights is its proximity to BNA?</p>	<p>The text revisions will be included in the next draft.</p> <p>Currently, the BNA is why there are no commercial flights. However, Outlaw Field is still considering its inclusion.</p>	OK

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Comment Number	Document Page No.	Comment	MPO Response	Final TDOT Response September 7, 2018
Questions/Comments - Items for clarification or further consideration				
54.	8-46	Same paragraph repeated in Systems Management and Operation section.	This will be corrected in the next draft.	OK
55.	8-47	Do TDOT and KYTC currently provide incident management services in the Clarksville area? If not, is there a need for them over the life of the Plan?	These services currently do not "patrol" and provide emergency service to the MPA on a 24/7 basis. However, they assist with larger incidents.	OK
56.	8-49	Has the MPO considered participating in TDOT's CMA program? Has the MPO identified corridors where a CMA would be a viable option?	Yes. Currently City Dept. is addressing.	OK
57.	9-5	"The Clarksville MPO currently does not qualify for CMAQ funds..." – This is not an accurate statement.	This was written before the conformity analysis became necessary and will be removed in the next draft.	OK
58.	9-7, 9-8	The first two funding sources listed in this section identify what percentage of local tax revenues they generate, but they only add up to 83%. Can the last 17% be identified as well? These numbers appear to be for local government in general. Where are the figures specific to the Clarksville MPO's member jurisdictions?	The remaining sources will be identified in the next draft. The current numbers are for local government in general. If area-specific figures for the member jurisdictions are available, this can be placed in the next draft.	OK
59.	10-7	Local standards may be different, but the TDOT standard for shared-use paths is 10ft wide. Using that width will likely give the MPO more accurate planning-level project cost estimates.	The next draft will feature a cost based on the TDOT standard.	OK

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Comment Number	Document Page No.	Comment	MPO Response	Final TDOT Response September 7, 2018
Questions/Comments - Items for clarification or further consideration				
60.	11-2	<p>First paragraph says the plan covers 2016-2045, but Stage I starts at 2018.</p> <p>Under “Bicycle and Pedestrian Plans” only sidewalks are mentioned. What about bicycles? In addition, it may be appropriate to go into further detail than just “they can be developed at the same time as other highway improvements.” Those routes are mainly on local facilities and have no planned improvements that TDOT is aware of.</p>	<p>A note will be added at the end of the paragraph that will explain why the tables reflect 2018, since 2016 and 2017 have already passed.</p> <p>The reference to bicycle projects in relation to the level of concern will be addressed in the next draft, as well the additional detail requested about project timing for the sidewalks.</p>	OK
61.	Appendix	The public outreach effort should be commended.		

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Comment Number	Document Page No.	Comment	MPO Response	Final TDOT Response September 7, 2018
Product/Process Improvements - Observations on content, grammar, structure, and other stylistic components				
62.	3-6	“Through MAP-21 and the FAST Act, the FHWA and FT have created...” should be FTA.	This will be corrected in the next draft.	OK
63.	5-1	Is the abbreviation for Micropolitan Statistical Area correct?	The abbreviation is correct; however, it is not used anywhere else in the report and will be removed in the next draft.	OK
64.	5-16	Big blue box and the paragraph beneath it have the same text.	This will be corrected in the next draft.	OK
65.	6-42	Should the sentence about Fort Campbell Boulevard sidewalks be bulleted like those that follow it on the remainder of the page?	This will be corrected in the next draft.	OK
66.	Chapter 8	Should Section captions say “Needs” rather than “Need”? It varies throughout the chapter. Page 8-33 – Trucking Needs?	This will be changed in the next draft to say “Needs” instead of “Need”.	OK
67.	8-51	...TDOT is working on a review....	This will be corrected in the next draft.	OK

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EPA Comments received on September 14th, 2018, regarding the draft conformity reports. MPO responses are in red.

Thanks for sending the Draft Conformity Determination Report for review. I have the following comment:

In the Background sections of both Kentucky's and Tennessee's reports, please include language to reflect that this conformity determination is prepared as a result of the South Coast II Decision.

The following section is the revised section based on the EPA's comments:

1.0 Background

The Clarksville MPA consists of Montgomery County, Tennessee and the southernmost portion of Christian County, Kentucky. The planning area is shown in Figure 1.2 of the MTP 2045, available from the MPO. On July 18, 1997, the Environmental Protection Agency (EPA) developed a revised 8-hour ozone standard of 0.08 parts per million (ppm), which was more stringent than the previous ozone standard. As a result of the change, the EPA designated the Clarksville-Hopkinsville area (which is made up of Montgomery County, Tennessee and Christian County, Kentucky) as nonattainment for the 8-hour average ozone NAAQS, and designated a basic ozone nonattainment area.

However, both counties have since been redesignated as Attainment with a Maintenance Plan for 8-hour National Ambient Air Quality Standard (NAAQS) ozone standard. The Clarksville-Hopkinsville area is still required to perform conformity analysis for the following three areas:

- The Kentucky donut (which encompasses Christian County but is not part of the MPA)
- The Kentucky MPO area (which is the portion of Christian County within the MPA)
- The Tennessee MPO area (which is the entirety of Montgomery County, with the exception of Fort Campbell)

In 2015, the Clarksville MPO stopped demonstrating conformity for the 2008 8-hour ozone standard due to the revocation of the 1997 8-hour ozone standard by EPA. The decision to revoke the 1997 ozone standard was vacated by the South Coast II Decision on Feb. 16, 2018, via USCA Case No. 15-1123. As a result, the Clarksville MPO must demonstrate conformity for the MTP and TIP. Effective on April 23, 2018, FHWA issued the Interim Guidance on Conformity Requirements for the 1997 ozone standard dated April 23, 2018, which states that new MTP and TIP updates and amendments that include the addition of a project that is not exempt from transportation conformity may not proceed until conformity with the 1997 ozone NAAQS is determined. This conformity determination complies with FHWA's April 23, 2018 guidance until further notice is given.

While the MPO is designated Attainment with a Maintenance Plan, and thus has a 5-year planning cycle, the conformity analysis must be conducted every four (4) years for MTPs and TIPs, as per 40 CFR

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93.104. It must also conduct the analysis each time the MTP or TIP is updated, as per 40 CFR 93. The Fort Campbell Army base is considered an external station for the purpose of transportation conformity. In addition, transportation conformity requirements are applicable for any roadway that receives funding or approved under Title 23 or 49 through the U.S. Department of Transportation (U.S. DOT). Fort Campbell does not contain any roadways that meet these conditions and is therefore exempt from conformity requirements.

Appendices

TDEC Comments received on September 20th, 2018, regarding the draft conformity reports. MPO responses are in red.

I attempted to replicate one of the MOVES runs. It turns out, the emissions I calculated for NOx were different. So I checked the other two runs for Montgomery County. The emissions I calculated for NOx for 2026, 2036 and 2045 were: 2.46, 1.81 and 1.74 tons/year, respectively. It took a while, but what I found was that the input databases did not include the ramp fractions. This may account for the differences. I did not check the KY MOVES runs, but suspect it may have the same issue. The VOC results were the same.

Thank you for bringing this to our attention. It appears that when we cleared and then updated the input files for our previous model runs, MOVES provided us the symbol showing the input was accepted; however, it used the default values instead. We re-imported the ramp fractions and obtained the values that you obtained. All of the MOVES model runs for Montgomery and Christian Counties will be re-run and the reports updated in the next draft to reflect these changes.

Appendix D to the CDR: Table D-8: It would be helpful to include the fuel formulation numbers in the left-hand column so they can be identified and compared in the fuel supply table.

This will be added to the next draft.

In looking at the CDR and MTP, maybe I missed it, but where do we have a list of all the projects with a determination of the projects' regional significance or exempt status? I'm assuming that all of the projects in the CDR's Table A-1 are proposed as non-exempt, regionally significant, and the impacts of which are modeled. What are the remaining projects? We need to have the IAC concur on which of those are exempt from transportation conformity as per 93.126 and 127.

The IAC and MPO will need to determine which projects are non-exempt, regionally significant and which ones are not. Once those determinations have been made, we can add a column to the relevant tables in the MTP and CDRs. At this time, all of the projects in the MTP and those provided by KYTC have been modeled in MOVES and treated as non-exempt.

Would the tables in Appendix E be more informative if the emissions are grouped by source types?

Currently, the Post Processing tab of the MOVES software does not provide breakdowns beyond what is shown in the Appendix E tables.

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KYTC Comments received on October 2nd, 2018, regarding the draft MTP. MPO responses are in red.

1. **Page 1–5:** Revise the list of local government to identify Oak Grove, **Kentucky**.

This will be revised in the next draft.

2. **Page 1–21, 3rd paragraph:** The statement in the 3rd paragraph of this page, appears to be an opinion. Revise to provide information data source of the statement. Otherwise, please remove paragraph.

This will be addressed in the next draft either through revision and removal.

3. Executive Summary Table ES–3: It would be helpful a more description of the projects.

This table is intended to show only the most pertinent project data. Since this is a planning document, detailed descriptions of the exact alignments and needs of the projects are unavailable.

4. Page 2–8: Bullet #6, revise to **“Demonstrating explicit”** consideration and response to public input received during the development of the metropolitan transportation plan and the TIP;

This will be addressed in the next draft.

5. Page 5–19: Revise to add to the section that FHWA/FTA are the agencies making the conformity determination.

This will be addressed in the next draft by adding a small sentence to page 4-11, where the conformity analysis is mentioned.

6. Page 5–19: We would like to see a freight study looking at the needs and identify trip generation of freight in the MPA area, especially since the MPO may become a TMA.

This will be addressed in the next draft by adding a section at the end of the report that explains why the study could be explored by the MPO.

7. Page 6–45: We would like to see a bicycle/pedestrian study since the MPO may become a TMA.

This will be addressed in the next draft by adding a section at the end of the report that explains why the study could be explored by the MPO.

Appendices

Displays received at the Clarksville public meeting from Joey Smith of the Montgomery County Health Department regarding the need for sidewalks at schools.



**Martin Street has a
Sidewalk Priority Score of 40-47 pts**

**Hazelwood Road has a
Sidewalk Priority Score of 12-15 pts**





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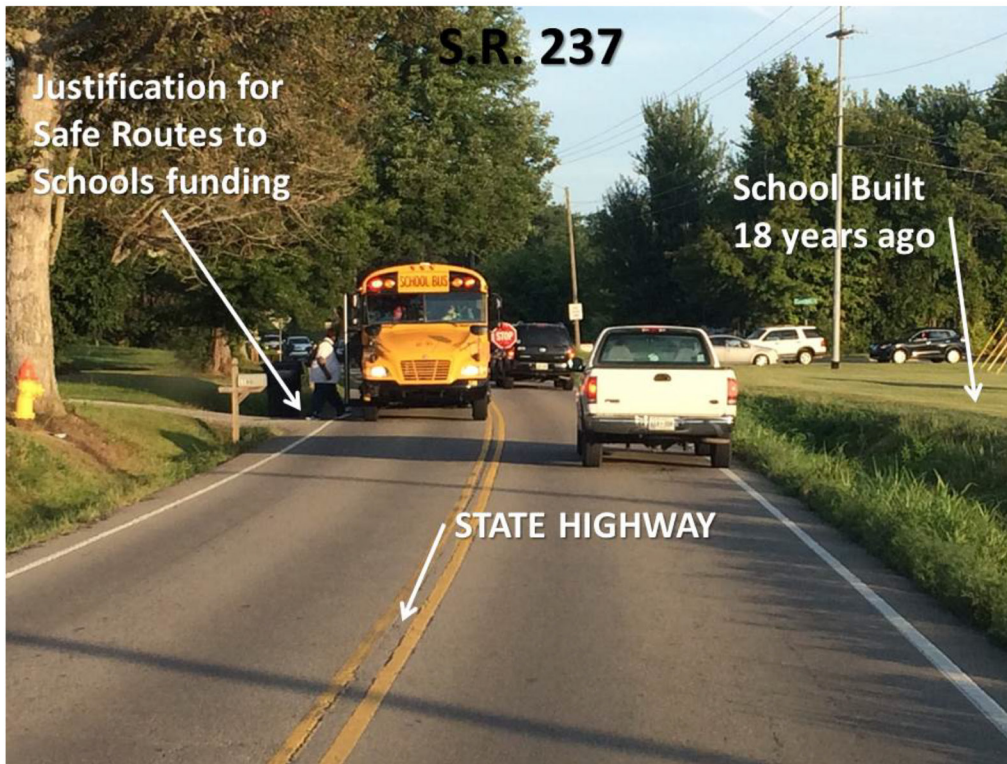


**Dunlop Lane has a
Sidewalk Priority Score of **29-33** pts**

**Rossvie Road has a
Sidewalk Priority Score of **8-11** pts**



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Schools Serve Many Roles

Actual Trip Generators of Schools:

- They are Elementary, Middle, High School **5 points**
- They serve as Parks and Greenways **4 points**
 - Ballfields, playgrounds, and green spaces are used EVERY day by the public.
 - We literally co-locate City and County Parks and Parks & Recreation Programs at schools
- Schools serve as Civic Centers **3 points**
 - Frequently used for public activities. Where does the city hold their public hearings for street projects and where do people go to vote? That's right; their nearest public schools used as civic centers.
- Schools are emergency shelters and hospitals under EMA authority **3 points**
 - Many schools have EMS stations co-located on the campus
- Many host local church and other non-profit services **2 points**

Other:

- Most have sidewalks that don't connect to any other sidewalks **5 points**
 - For missing segments within ¼ mile.
- Every school building sits in a 30 mph zone **2 points**

Total Actual Score: 24 points

When surrounded by single or multi-family development on a major roadway; a three school campus is serving over 4,000 people daily. This should tip the pedestrian priority scale at over 50 points.

Comment received from Mr. White via email and MPO response.

From: Stan Williams
To: [REDACTED]
Subject: Fwd: MTP 2045 Draft Report
Date: Thursday, December 06, 2018 12:05:28 PM

----- Forwarded message -----
From: Stan Williams <stan.williams@cityofclarksville.com>
Date: Thu, Dec 6, 2018 at 12:00 PM
Subject: Re: MTP 2045 Draft Report
To: [REDACTED]

Mr. White, thank you for your feedback. Unfortunately just because a project is listed in the Major Transportation Plan (MTP) it is not a guarantee said project will be constructed. When a project is listed in the MTP, it becomes eligible to use federal funding for the environmental, design, right-of-way, utility and construction phases. Next, said funding must be obligated in the Transportation Improvement Program (TIP) to begin said phases. The current 2017-2020 TIP is posted on the website (www.cuampo.com).

Until the environmental and design phases are completed for any project, the amount of right-of-way easements and acquisitions need can not be determined accurately. Dunbar Cave Rd. is not a federal nor state designated route, thus the majority of funding to make any improvements will require local/city dollars. The project is not included in the 17-20 TIP, no do I anticipate it being included in short - mid yrs. TIPs. That is why it is listed in Stage III, (2037 to 2045).

Hope this addressed your concerns. My advise is, enjoy your home and drive safely!

On Mon, Dec 3, 2018 at 5:27 AM [REDACTED] wrote:

I have a question regarding the MTP 2045 draft report, specifically Table ES.3, Page ES.11, Map ID 503, Dunbar Cave RD. It lists an improvement of widening Dunbar Cave Rd to 4 lanes, from Wilma Rudolph to Rossvie Rd.

I have some concerns regarding this, particularly on the section of Dunbar Cave past Warfield Blvd. This road has a number of houses very close to the existing roadway. How will this widening be accomplished, will it result in Houses being demolished for road construction, will it result in residents losing significant portions of their property/front yards, how much of this will be lost, and if so what will be done to ensure the safety of the families whose homes will be significantly closer to the new roadways. In addition, it is very likely that this project would have a substantial negative impact on property values in this area, particularly for those homes that lose significant portions of their front yard and homes being closer to the road. How will the city and/or county compensate these home owners for the short and long term loss of property value.

Appendices

I have only lived in this area for 3 years, but I realize something will need to be done to alleviate the traffic. This road already has a significantly greater volume of traffic than I expected and had I known this before hand, I probably would not have purchased the home. And while I also recognize that this project is not anticipated to begin for approx. 20+ years, but if I can expect to lose part of my front yard, and have my home closer than it already is to the roadway, I don't expect to remain there and will move away from Clarksville if that's the case.

Thanks for your attention to my concerns.

Comment from received from Mrs. Jarvis at the Oak Grove public meeting.

**COMMENT SHEET FOR THE
CLARKSVILLE URBANIZED AREA MPO
2045 METROPOLITAN TRANSPORTATION PLAN (MTP)**

If you have additional comments, please complete this form and return it to:

Mail: Mr. Stan Williams, MPO Director
Clarksville MPO
329 Main Street

Phone: (931) 645-7448
Fax: (931) 645-7481
E-mail: Stan.williams@cityofclarksville.com

Clarksville, TN 37040

COMMENTS:

Hwy 115 - Speed limit needs to be reduced.
Several fatalities have happened on the ~~the~~ last
few years. We also have residents who walk this
road as a way to get to City Hall + shopping. This
road needs to be widened with sidewalks.

Hwy 911 - Needs to be a 5 lane road with sidewalks
with the race track coming, wal mart + several
businesses on 41-A this road is very dangerous

Hwy 400 Needs to be widened with sidewalks

All 3 of these state roads are major thorough
ways through the City of Oak Grove going to
Clarksville, TN, Hopkinsville, KY + Nashville, TN

When accidents happen on I-24 between exits
86 + 89 + around these exits the City of Oak
Grove shuts down due to the traffic exiting off
the highway trying to go around.

41-A
115
911 + 400 become impassable

(Optional)

Name: Theresa Jarvis

Address:

[Redacted Address]

Phone:

E-mail:

[Redacted Phone and Email]

MPO response to Mrs. Jarvis' email.

1/3/2019

City of Clarksville Mail - comments @ Public Meeting on 12.03.18



City
of
Clarksville

Stan Williams <stan.williams@cityofclarksville.com>

comments @ Public Meeting on 12.03.18

1 message

Stan Williams <stan.williams@cityofclarksville.com>
To: theresajarvis@yahoo.com

Thu, Jan 3, 2019 at 10:10 AM

Mrs. Jarvis, thank you for your comments during the public meeting on 12.03.18. I'm providing the following as a response: 1) KY115 - a speed study would need to be conducted and accident reports analysed to help determine if the current speed limit should be reduced. Both segments are listed, ID # 109 & 110 in Stage I (2018 -2026) on pg. 11/5 in the 2045 Major Transportation Plan (MTP). In order for the project to move forward, KYTC will need to include PE - NEPA (N) and PE - Design (D) funding in the upcoming 2020- 20023 Transportation Improvement Program (TIP). 2) KY911 - in the 2011-2014, 2014 - 2017 and current 2017-2020 TIP, there was funding allocated for PE-ND, Right-of-Way (row), Utilities and Construction as a 5-lane. In aprx. late 2017, KYTC reduced the cross-section to a 3-lane. It's my understanding that row acquisition is about to begin. 3) KY400 - Is listed, ID # 108 in Stage I on pg. 11/5 in the MTP. In order for the project to move forward, KYTC will need to include PE-N/D funding in the upcoming TIP. 4) I-24 - the MPO is about to have a freight operations plan conducted in an effort to identify actions/improvements to help relieve congestion on Fed/State/Local roadways when traffic is diverted off of I-24 within the MPO study area.

Hope this very brief summary explains what is needed to move projects forward. Anytime you have additional questions/comments, contact me at your convenience.

TJcmnts120318.pdf
45K

<https://mail.google.com/mail/u/0/?ik=adfbf630d&view=pt&search=all&permthid=thread-a%3Ar-8482987812280273308&siml=msg-a%3Ar916302554...> 1/1

There is currently a project in the TIP and MTP to widen KY-911 to three lanes from US 41A to KY-115. A project has been added to the MTP's Vision projects list (project 519) in Table 11.8 so that this request can be explored in future transportation plans.

KY-400 could receive funding to widen the roadway or add sidewalks through the Enhancement Line Item in the Staged Improvement Program. This funding category is used on an as-needed basis and could be used to program a project for KY-400 if the need becomes warranted.

Comment received from Ms. Kellerman via email and MPO response.

11/13/2018

City of Clarksville Mail - transportation



City
of
Clarksville

Stan Williams <stan.williams@cityofclarksville.com>

transportation

2 messages

Lucille Kellermann [REDACTED]
To: "stanwilliams@cityofclarksville.com" <stanwilliams@cityofclarksville.com>

Mon, Nov 12, 2018 at 10:48 AM

Sir,

I do not use the buses now, but have in the past. I past by people waiting for the buses in the rain and in heat. There should be a wait for you to be sure EVERY bus stop has a shelter they can go in to keep dry and in the shade. It is a shame that Clarksville Transportation wants to expand (which is a great idea) but neglects the bus stops already in place. Please provide Clarksvillians shelter while they stand there waiting for the buses.

Thank you.

Sincerely your,

Lucille Kellermann

Stan Williams <stan.williams@cityofclarksville.com>
To: [REDACTED], Art Bing <arthur.bing@cityofclarksville.com>, Paul Nelson
<paul.nelson@cityofclarksville.com>

Tue, Nov 13, 2018 at 9:20 AM

Ms. Kellermann, thank you for your comment. I've Cc: Mr. Bing & Mr. Nelson with the CTS.
[Quoted text hidden]

<https://mail.google.com/mail/u/0/?ik=adfbf630d&view=pt&search=all&permthid=thread-f%3A1616947507500382677&siml=msg-f%3A161694750750...> 1/1

Comment received from Marc Corrigan of TDEC and MPO Response.

It does appear, based on the project description in the CDR for SR-374 that this change was made to the MTP and CDR.

After consultation with TDOT and FHWA, it was decided to re-run the Travel Demand Model and MOVES emissions analysis with SR-374 as a 4-lane roadway to maintain consistency with the 2017-2020 TIP. The MTP and conformity reports reflect this change. All modeling files will be made available upon request.

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Sign-in Sheet from Oak Grove Public Meeting

SIGN-IN SHEET

The Clarksville Urbanized Area
Metropolitan Planning Organization (MPO)
Draft 2045 MTP - Public Meeting/Oak Grove, KY
December 3, 2018 at 5:00-7:00 p.m.

NAME	AGENCY
1. Misty Cutshall	City of Oak Grove
2. Jeffrey W Davis Sr	City of Oak Grove
3. Angelica O'Malley	City of Oak Grove
4. Jay Jones	City of Oak Grove
5. Dana Richardson	Neel-Schaffer
6. Vijay Kunada	Neel-Schaffer
7. Bonnie Hughey	
8. Theresa Jarvis	City of Oak Grove
9. Jill Hall	Clarksville MPO
10. Renea Gingsby	Oak Grove, KY
11. RON GREGSBY	OAK GROVE KY

SIGN - IN SHEET (continued)
Draft 2045 MTP Public Meeting/Oak Grove, KY
December 3, 2018 at 5:00-7:00 p.m.

	Name	Email
12.	Stan Williams	MPO
13.		
14.		
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19.		
20.		
21.		
22.		
23.		
24.		

Sign-in Sheet from Clarksville Public Meeting

SIGN-IN SHEET

The Clarksville Urbanized Area
Metropolitan Planning Organization (MPO)
Draft 2045 MTP - Public Meeting/Clarksville Library
December 4, 2018 at 5:00-7:00 p.m.

NAME	AGENCY
1. Jeffrey Tyndall	RPC
2. Dana Richardson	Neel-Schaffer
3. Vijay Kunada	Neel-Schaffer
4. Kimberly Pettit	Reliant Realty
5. Tam Preston	TDOT
6. Joey Smith ^{Molly} Smith	Montgomery Co Health Dept
7. Michael Dean	NAT Clarksville
8. Jill Hall	Clarksville MPO
9. Randy Whetsell	Reliant Realty, ERA Powered
10. Mara Kutch	Reliant Realty, ERA Powered
11. [Signature]	Mo. Comm

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SIGN - IN SHEET (continued)
Draft 2045 MTP - Public Meeting/Clarksville Library
December 4, 2018 at 5:00-7:00 p.m.

	Name	Email
12.	Walker Woodruff	
13.	William B. Allen	
14.	M. Emerly Hartz	emerlyhartz@yahoo.com
15.	Chris Rasner	
16.	Amelia Hartz	ameliahartz@aol.com
17.	Arthur Brix	
18.	Rashidah Leverett	
19.	SUE Ellen Yates	bobsueellena@bellsouth.net
20.	Melinda Kelly Major	mkellyrich@hotmail.com
21.	Nikki Clark	nikkijnc@gmail.com
22.	Nick Powell	nbpowell@mcgtn.net
23.	OTIS R. COFFIN	ocoffin57@gmail.com
24.	Russell Cain	Retiredaem498@ bellsouth.net

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Clarksville MPO Draft 2045 Metropolitan Transportation Plan FHWA & FTA Comments

Date Due:

Comment Number	Document Page No.	FHWA / FTA Comment	Clarksville Responses	TDOT Follow up
<i>A. Required Changes: Comments that identify discrepancies with federal law, regulation, or policy.</i>				
A1	General	The MPO's 2013 amended PPP calls for at least one public meeting during development of the MTP, with Level 1 outreach for this meeting. The only public outreach documented in the draft MTP is related to the public outreach survey. While the survey is a valuable tool, it is unclear whether the MPO has followed the policies in the PPP related to this public meeting. Please clarify and provide any additional documentation available to reflect additional public outreach.	Based on our past experience and to provide better opportunity for public input, the survey was utilized. The survey was made available to all stakeholders and the general public, with invites sent through several media outlets (shown in Appendices B and C) accessible to all individuals. The results were excellent with over 2,100 responses. In addition, all MPO meetings were available to the public to provide input and the survey was promoted at those meetings. There are two upcoming Level 1 public meetings available for additional input. An appendix will be added after the upcoming public and stakeholder meetings that detail these activities. The list and an example contact letter are attached. Also the respondents from the survey that	OK

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			asked to be updated on the MTP process will be contacted.	
A2	General	In all cases where the MPO identifies State-level PM1, PM2, and PM3 targets that the MPO is supporting, please also identify relevant <u>statewide</u> baseline values, not just those for the MPA.	The requested data was added to the tables in the new draft.	Where is this addition?- The requested changes were made to Tables 6.4 (pg. 6-9), 6.6 (pg. 6-12), 6.12 (pg. 6-24), 6.39 (pg. 6-109), 6.42 (pg. 119), 6.43 (pg. 6-120), and 6.44 (pg. 6-120). Freight TPM data was included on Page 6-80.
A3	General	Revenue Forecasting – see pages 9-9, 9-16, 11-2, 11-3, appendix f FHWA/FTA hold significant concern and questions with the MPO’s revenue forecasting, including: 1. The MPO appears to be forecasting revenue by using historical data which likely is not entirely applicable to future funding sources, including Federal funding sources that are defunct, such as NHS, ENH, SRTS, as well as sources which are discretionary in nature and/or have specific eligibilities which may not align to	1. The majority of the defunct programs have been merged into other programs, with exception to SRTS, such as the NHS becoming part of the NHPP. It is anticipated that discretionary funding sources will continue through some future program. Based on previous experience, we felt comfortable forecasting future revenue based on this historical data to develop the historic average annual funding levels. 2. Forecast funding estimates do not include the IMPROVE Act since the info obtained from TDOT is a fact sheet that covers the entire state and cannot be used at the regional level.	1. Needs clarification – Since transportation funding sources usually change with each transportation bill we used the historical average funding, which will include defunct programs. These defunct programs include S-STP, L-STP, and RSTP in MAP 21 becoming part of the STGBP in the FAST ACT; NHS in MAP 21 becoming part of the NHPP in the FAST Act; and ENH, which became TAP under MAP 21, is now part of the STGBP of FAST

		<p>the projects identified in the MTP, such as CMAQ, FLAP, R/P/RPHSIP. Please clarify why these programs were included in the revenue forecast.</p> <ol style="list-style-type: none"> 2. The revenue forecast for the Tennessee portion of the MTP does not appear to include any State funding sources, including the increased revenue from the IMPROVE Act. Please clarify. 3. Please justify why the MPO is applying a Consumer Price Index rate to the historical funding for 2014-2016, which artificially inflates the revenue that went to the region in these years. 4. The MPO appears to be forecasting revenue for years 2018, 2019, and 2020, even though this information can be found in the TN STIP/MPO's TIP. Why did the MPO elect to forecast this revenue instead of using actual revenue? 5. The revenue forecast appears to be based on 	<ol style="list-style-type: none"> 3. The application of the Consumer Price Index was used to develop the annual average funding in a constant 2017 dollars, accounting for inflation. 4. The actual TIP costs were used in 2018-2020 for the staged program years. 5. The inflation rates for revenue forecasting were provided by TDOT and KYTC respectively. 6. The \$100,000 spent in Christian County was inflated to keep it consistent with the forecasting method. 7. The breakdowns were defined the results of the public survey, and by past experience, determined by which project types in the historic funding fit a particular line-item in the MTP, or a capacity project. 9. TDOT has stated that alternative transportation funding does not 	<p>Act We still anticipate other discretionary funding sources, such as CMAQ, FLAP, and R/P/RPHSIP to be available in one form or another. Though the MTP currently does not specifically identify projects that may be eligible for all of these discretionary funding sources, line item funding sources (such as safety, enhancement, maintenance, etc.) were identified that could be used for eligible projects as they come up during the MPO project selection process. The Current TIP has FLAP (2017 and 2018) and CMAQ (2017 through 2020) funds in the revenue forecast.</p> <ol style="list-style-type: none"> 2. Please contact TDOT for breakdown of regional level funding sources. IMPROVE Act projects were
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		<p>inflationary rates of 3% in TN and 4% in KY. What is the source of these rates? Why do they vary between the two states?</p> <ol style="list-style-type: none"> 6. Christian County, KY indicated to the MPO that on average, \$100,000 is spent on transportation projects in the county annually. Based on this information, why did the MPO elect to apply a growth rate to this revenue? 7. How are the “breakdown” of project categories defined? This is unclear in the plan. Please provide definitions for each category. 8. What is the source of the percentages informing the “breakdown” of revenue by project category – i.e. where does the 60% of revenue for capacity come from, the 15% for reconstruction, etc? 9. Section 9.3 (page 9-16) states that bicycle/pedestrian funding is based on the MPO’s STBG allocation, yet the revenue forecast 	<p>have a set funding value for each metropolitan area each year. As a result, the forecast funding for bicycle and pedestrian projects is based on historic forecast levels, and not the current program.</p> <ol style="list-style-type: none"> 10. All project costs were developed in 2017 dollars. As a project was selected for a particular stage of the Stage of the Staged Improvement Program, an inflation factor corresponding to the “mid-point” of the Stage was applied to develop the project cost during that stage. The MPO has a spreadsheet detailing these calculations that can be added to a new draft if desired. 	<p>provided in Appendix F.</p> <ol style="list-style-type: none"> 3. OK- where is this index? – The CPI is provided by the Bureau of Labor Statistics for the South Urban Region. Information will be added to the final report that displays the methodology and data and more information can be found in the “CPI” section of Appendix F. 4. Needs clarification – Revenue forecasts were conducted for the entire plan period using the same methodology. However, for Stage 1, the costs and revenues were assumed to be coming from TIP. Revenue forecast for capacity improvements for Stage 1 on TN side came out to be \$211 million but the TIP project costs were \$261 million. Hence
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		<p>includes now-defunct bike/ped funding sources (ENH, SRTS). Please clarify.</p> <p>10. The MTP does not appear to include an adjustment of project costs based on year of expenditure. If this has indeed occurred, there is no explanation of how project costs have been inflated throughout the various Stages of the MTP. Please clarify.</p>		<p>no new projects were added to TN side for Stage 1 beyond the projects identified in TIP. The TN revenues will be adjusted in the final report and more information can be found in the "Forecast Funding and the TIP" section in the attached Appendix F Narrative Additions document. But, on KY side the revenue forecast for capacity improvements for Stage 1 came out to be \$50.8 million but the TIP project costs were \$14.8 million. Three projects were added on KY side to use the remaining revenue for KY area.</p> <p>5. OK- who specifically provided these rates? Brian Hurst – TDOT and Maridely Loyselle – KYTC.</p> <p>6. Needs clarification – Funding forecast methodology used includes developing</p>
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				<p>an annual average funding from all sources including local funding, such as Christian County funds, in 2017 dollars and then forecasting that amount to future years using the inflation rates.</p> <p>7. Needs clarification – A narrative section was added to Page 11-4 to clarify these categories.</p> <p>8. MTP response #8 missing?- Tables that show the development of these breakdowns will be included in the final report, with more information available in the “Line Items” section of Appendix F.</p> <p>9. Needs clarification- does not address the comment specifically – STBG funding is allocated to the various MPOs and rural areas within the state on an “as programed” basis,</p>
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				<p>meaning that there is currently no information available to develop an annual average. Based on the desire and push for more bike/ped facilities within the area expressed by local citizens and stakeholders, we anticipate that the area will receive at least the funding comparable to what was funded through the now-defunct TAP.</p> <p>10. Adjustment of project costs needs to be addressed more clearly; also include calculations spreadsheet as mentioned – The spreadsheet and a description of the calculations will be added to the appendices of the final report. This information can be found in the “Stage Cost Calculations” section of Appendix F.</p>
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A4	General – Chapter 3	Recommend clarifying how the TAM framework has been implemented to monitor and manage transit assets, and describe the performance system used to evaluate the performance and condition of the transportation system with respect to the performance measures and targets.	Section 3.3 was expanded in the new draft to discuss this, using the TAM to explain the process.	OK
A5	General – Chapter 10	Recommend clarifying how transit funding uses are prioritized based on the condition of their assets to achieve or maintain a state of good repair (SGR).	<p>CTS has stated that: “Funding is first used to satisfy operating needs. Remaining and capital only funds are used to repair and replace assets as needed with safety concerns addressed first.”</p> <p>This was addressed in the new draft.</p>	OK – added on page 10-3
A6	6-119	This section provides specific examples of activities and policies of the MPO in supporting the State’s safety targets, but does not provide similar narrative for the condition and system performance targets, outside of a general incorporation into the project scoring criteria. Please provide.	This section was expanded to provide examples and activities and policies that the MPO can conduct to support the condition and system performance targets.	OK

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B. Additional Comments & Questions: General comments & questions to improve clarity, accuracy, and readability.				
B1	General	FHWA/FTA appreciate the efforts of the Clarksville Urbanized Area MPO in developing a highly comprehensive, readable plan that paints a good picture of transportation needs and priorities in the Clarksville region while being easy-to-read and understand.	Thank you. With the help of a good consultant team and State/ Federal agencies we are trying to produce a high quality product, within budget and on schedule.	OK
B2	General	Consider adding a List of Acronyms, as they are numerous throughout the document.	This was added to the new draft.	OK
B3	General	<p><i>A comment for future updates to the MTP:</i></p> <p>As CUAMPO is on the verge of qualifying as a TMA, consider establishing a more robust evaluation of traffic congestion that will support the TMA requirements of 23 CFR 450.322 – Congestion Management Process (CMP) (i.e. strategies, performance measures, data management, etc.). This may facilitate the MTP update when CUAMPO qualifies as an TMA. Unless a separate CMP document is created, Chapter 8 has the potential</p>	The MPO will consider the development of a CMP and further analysis of traffic congestion, finances, strategies, and performance measures to be used in the future.	OK – Concur - Chapter 8 Transportation Demand Management strategies will be very relevant for future TMA qualification.

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		to incorporate many of these requirements.		
B4	General – Table of Contents	Consider adding the Executive Summary to the Table of Contents.	This was added to the new draft.	OK – page ES-1
B5	General – Chapter 6	Please identify freight bottlenecks and the National Highway Freight Network (including Critical Urban/Rural Freight Corridors) in the Clarksville MPA. Chapter 6 might be a good place for this, but wherever the MPO sees fit would suffice.	Currently the data available from TDOT and KYTC show there are no freight bottlenecks within the MPA. The list of routes on the NHFN was added to the new draft.	Based on information received, no freight bottlenecks were confirmed within the MPA
B6	General – Chapters 6 & 8	Chapters 6 & 8 contains a significant amount of very valuable information regarding current and future transportation systems and needs, but the connection between this information and the project scoring criteria could be somewhat strengthened, maybe through the addition of a sentence or two at the end of each section explaining the relevant scoring criteria. It seems obvious enough, but I often found myself wondering, what is the MPO doing with all this great information and valuable observations?	Additional content was added to the new draft to bridge this gap.	OK – page 6-3 and 8-2

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B7	ES-1, 1-1	By the date of plan adoption, the plan will be covering a period of twenty-seven years, not twenty-nine. Consider revising.	This was adjusted in the new draft.	OK – ES-1
B8	1-3	Recommendation to add a reference to Figure 1.2 in the narrative regarding the Metropolitan Planning Area.	This was added to the new draft.	OK – page 1-6
B9	1-3	Typo, 2 nd paragraph: “... all areas expected to be urbanized...”	This was adjusted in the new draft.	OK
B10	1-7	Please indicate that FHWA is FHWA-TN and FHWA-KY, and that FTA is FTA-Region 4.	This was adjusted in the new draft.	OK
B11	1-10	1 st paragraph: Consider adding the regulatory reference to the FAST Act (i.e. 23 CFR § 450, Subpart C).	This was added to the new draft.	OK
B12	1-10	The quote in the box is not found in FHWA’s <i>The Transportation Planning Process Briefing Book: Key Issues for Transportation Decisionmakers, Officials, and Staff</i> . Rather, it can be found on FHWA’s website at https://www.fhwa.dot.gov/planning/processes/metropolitan/ . Please revise.	This was adjusted in the new draft to match the proper references.	OK
B13	1-12	To the list of Federal requirements of the MTP, please clarify:	This was adjusted in the new draft.	OK

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		<ul style="list-style-type: none"> The MTP is required to include current and projected transportation demand of people and goods; The MTP is required to include a system performance report evaluating the condition and performance of the transportation system. 		
B14	1-13	To clarify, Transportation Management Area designation is based on the urbanized area population, not the population of the MPA. According to 2017 Census estimates, the population of the Clarksville, TN--KY Urbanized Area was 176,696.	This was adjusted in the new draft.	OK – FHWA: 176,696 population, while draft states 177,000 population- The final report will display the exact value.
B15	1-14	Montgomery and Christian counties are not designated maintenance areas for any air quality standards; rather, the area is expected to continue to perform transportation conformity as an anti-backsliding measure as a result of being a former maintenance area for the 1997 Ozone NAAQS. Please clarify.	This was adjusted in the new draft.	OK – page 1-13
B16	1-15	Question: what mechanisms did the MPO take to ensure that the MTP is consistent with the plans and	A small paragraph was added to the new draft that clarifies this.	OK – page 1-14

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		processes provided on this page? Any documentation to this effect, such as a more explicit demonstration of consistency between the SHSP and the MTP, could help to clarify this.		
B17	1-18	This appears to be the first use of the acronym 'TPM'. Please define.	This was added to the new draft.	OK
B18	1-19, 1-20	As presented, this table could be made much clearer to more thoroughly represent the national transportation performance measures. Would suggest the table be broken into columns which represent the Category, Performance Measure, Performance Target/Metric, and Timing of Targets. Please also note that Safety targets are based on a five-year rolling average, not safety metrics in a calendar year, but these targets are set annually.	This table was adjusted in the new draft.	OK pages 1-19 – 1-22
B19	1-20	Recommendation to note that the CMAQ performance measures do not apply to the Clarksville urbanized area.	A note was added to the table in the new draft to clarify this.	OK – asterisk page 1-22
B20	1-26	The quote from 23 CFR 450.104 varies slightly from the current version. Specifically, the last line is	This was adjusted in the new draft.	OK – page 1-28

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		not in the CFR, and the next to the last line is not an exact quote. Please revise.		
B21	2-4	Last line: the word “plan” after PPP is redundant, as the acronym includes the word “plan”. Consider revising.	This was adjusted in the new draft.	Still needs revising- bottom of page 2-4 “PPP Plan”- The final report will remove the word “Plan”
B22	2-5	This appears to be the first use of the acronym “LEP”. Please spell out.	This was added to the new draft.	OK
B23	2-8, 2-9	This is a good summary of Federal requirements for consultation with stakeholders, but there is limited information documenting the actual consultation activities that took place and what feedback was received. Please identify who these stakeholders are in the Clarksville region, how they were consulted with, and any feedback that was received. Consider adding this to the Appendix discussion on public involvement and stakeholder outreach.	An appendix will be added after the upcoming public and stakeholder meetings that detail these activities.	OK – Appendix A: Public Outreach Strategy Appendix B: Survey Letter, Flier, and Mailing List Appendix C: Webpage and Social Media Announcements
B24	2-11	Question: what projects specifically were added from the survey? It’s somewhat difficult to tell from just the map in Figure 2.9.	A new table was added to the new draft to address this.	OK – table 2.1 added on page 2-12

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B25	2-12	Question: how does the information regarding means of travel gathered from the survey align with information from the Census? Do the two seem to reflect similar findings?	A new bullet was added to the new draft to address this.	OK – box at bottom of page 2-12
B26	2-14 & 3-4	Based on the public survey results in Ch. 2, a repetitive concern was that services did not connect with desired destinations. This concern did not appear to be reflected in the objectives of Goal #3. How is the feedback from the public coordinated with the transit agencies? For example, could an objective be to revisit transit routes as the population and destinations evolve?	<p>CTS has stated that:</p> <p>“Strategic plans, operational analyses, and public hearings and surveys are conducted routinely to aid in route and service planning.”</p> <p>New bullet points were added to page 3-4 to address these efforts.</p>	OK
B27	3-3 – 3-6	The objectives provided could be made somewhat more specific, measurable, time-based to provide more valuable in assessing achievement of these objectives and alignment with both Federal and CUAMPO performance measures. Table 3.2 could be made more specific by addressing the relationship of the MTP objectives to these performance measures.	This will be considered for the next MTP update.	Still no changes made to Table 3.2 – The final column will contain changes in the final report that further breakdown the goals and objectives that can address the performance measures.

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B28	4-1	As previously stated, please provide documentation for the consultation with state/local environment, resource, land use, etc. agencies.	As in B23, an appendix will be added after the upcoming public and stakeholder meetings that detail these activities.	Appendices added (see above)
B29	4-4	For Noise, please add 23 CFR 772 to the Relevant Regulations. For Recreation Areas, Historic Structures, and Archaeological Sites, please add 23 CFR 774 to the Relevant Regulations.	These references were added to the new draft.	OK
B30	4-10, 4-11	Please clarify the air quality status as previously stated in Comment B15.	This was updated in the new draft.	OK – page 4-10
B31	4-10	Please remove the word “principal” from “six criteria pollutants”.	This was updated in the new draft.	OK
B32	4-11	Typo: “numeric” should be “numerical”.	This was updated in the new draft.	OK
B33	4-11	Suggest revising “transportation model” to more clearly identify it (perhaps as the “Travel Demand Model”).	This was updated in the new draft.	OK
B34	4-11	Table 4.3: the standard for Ozone is 70 ppb, not 53. Please revise.	This was updated in the new draft.	OK
B35	4-15	The items identified as “environmental benefits” of wetlands are not actually benefits of wetlands. These seem to be more general characteristics, or	This was adjusted to reflect that the identified items are actually protection needs.	OK

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		perhaps protections, of wetlands. Please revise for clarity.		
B36	5-5	This map might be enhanced by an identification of the location of the major employers identified on page 5-11 (recognizing that some are not at a single site, such as the School System, while others might be).	The map was updated in the new draft and will show the HQ locations of the major employers.	OK – page 5-6
B37	6-2, 6-3	Consider aligning this discussion to FHWA classifications – Interstate, Other Freeways, Principal/Minor Arterial, etc – as well as dividing into urban/rural, as this is critically important to Federal-aid eligibility.	This was adjusted in the new draft.	OK
B38	6-15, 6-15	Volume to capacity ratio is usually expressed as “V/C ratio”. “VOC” is generally the abbreviation for volatile organic compounds.	This was updated in the new draft.	OK
B39	6-73	References to the tables in the blue box at the bottom of the page appear to be flipped (i.e. the referenced to Table 6.20 should be to Table 6.21, and vice versa).	This was updated in the new draft.	OK
B40	6-87	Please add the number of fatalities and serious injury crashes to Table 6.25, to better align this with Federal performance measures. Please also add 2017 crash data, in	The 2017 data will be added to Table 6.25. The in-depth data needed for the remainder of the analysis cannot be added to the rest of the section.	OK

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		order to provide the most recently-available crash data.	KYTC was unable to provide 2017 data. It will be added to the final report.	
B41	6-89	Typo: missing a space between “6.29” and “displays”.	This was updated in the new draft.	OK – bottom of page 6-90
B42	6-90	While crash frequency is critical to safety analysis, crash severity is often considered of more critical importance to ranking high-crash locations. Accordingly, an intersection such as SR-374 at SR-48, which is 14 th on the listing in Table 6.28, would generally be a higher priority than many of the intersections above it. Consider addressing this.	A line was added to the new draft on page 6-89 that will address this. The table is merely informative and shows the highest crash frequencies. The new line will point out the importance of crash severity in the process.	OK – table and line on page 6-89
B43	6-94, 6-95	Consider ranking the segments in Tables 6.30 and 6.31 by priority. If these are already ranked somehow, please explain.	These tables are not meant to assign priority, but are designed to show the relative ranking of the locations based on crash frequency and crash rate.	May need to add a line of clarification addressing that the tables are meant to show the relative ranking of the locations based on crash frequency and crash rate- A sentence will be added to the final report that states that the tables show the relative ranking of the segments by their crash frequencies and rates and are not used to infer an order of priority.

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B44	6-109	Did KYTC set safety targets for 2015-2019? If so, please provide.	KYTC recently provided this data. It has been added to the new draft.	OK – page 6-110
B45	6-111	Question: how does the CUAMPO assist in the implementation of the recommendations listed in Table 6.41?	Upon MPO review of the accident reports, if said behavior is contributing to the cause of the crash, the MPO will work with TDOT/KYTC local maintenance, and the City/County highway departments, to develop and deploy potential improvements. As this process evolves, the MPO will establish new procedures for the evaluation of the crashes and establish, or work with, a local safety coalition for this purpose.	Add a similar explanation to the “special safety issues” section – A similar explanation will be added to the final report.
B46	6-116	Recommend describing the second STRAHNET route as “US-41A, from Screaming Eagle Boulevard (Fort Campbell, Gate 4) north to I-24, Exit 86”	This was adjusted in the new draft.	OK – page 6-17
B47	8-2	The presentation of the figure on this page is somewhat misleading, making it seem as though all three metrics are growing at the same rate (through arrows of the same size), when in fact they are growing at drastically different rates. Consider revising for clarity.	This was adjusted in the new draft.	Arrow sizes may still be misleading? Page 8-2 – The size of the arrows will be revised for the final report.
B48	8-3, 8-4	The data in the tables “Daily Vehicle Hours Traveled (VHT)” and “Daily	This table was corrected in the next draft.	OK

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		Vehicle Hours of Delay (VHD) are the same. Please revise.		
B49	8-18	The text notes that there are 16 bridges in “poor” condition, while Table 8.5 only lists 15 bridges. Please clarify.	This table was updated in the new draft. During the update, this was also corrected.	OK
B50	8-18	The Sufficiency Rating for several of the bridges listed in Table 8.5 has changed since the drafting of this table. Please revise with updated information.	TDOT has provided updated information about the sufficiency ratings of these bridges. These ratings are shown in the new draft.	Do these changes still reflect the current sufficiency ratings? – The data received from TDOT on August 5, 2018 contains the sufficiency ratings for the bridges listed in Table 8.5.
B51	8-18	The statement “Table 8.5 displays the MPA’s bridges in poor condition by their sufficiency ratings” is incorrect. The sufficiency ratings aren’t what determines the bridge rating – that’s determined by the ratings from inspections using the National Bridge Inspection Standards (NBIS). The NBIS ratings don’t always correspond to the sufficiency ratings. For example, Rawlings Road bridge over Blooming Grove Creek has a very high sufficiency rating, but is rated poor because one of the bridge elements (the deck) is in “serious” condition. Poor deck conditions	The table is meant to show them in the order of lowest sufficiency rating. The text was adjusted to reflect how the poor rating works.	OK

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		only lower the sufficiency rating a small amount. Please clarify.		
B52	8-18	Recommend explaining the “poor” designation in more detail. Saying that these bridges are in “poor” condition would likely be misunderstood by the public. Bridges are rated based on the conditions of their decks, superstructure, substructure, and stream channel and channel protection. It may be that only one of these elements, such as the deck, is in poor condition, while the other elements of the bridge may be in fair, good, or very good condition. If any one of the elements is rated “poor”, then the bridge is also rated “poor”. The Poplar Springs Road bridge, for example, with a high Sufficiency Rating of 93.9, has only the deck in “poor” condition, but the superstructure and substructure are in “good” condition, with the stream channel in “very good” condition.	This was updated in the new draft.	OK
B53	8-18	In Table 8.5, the Ringgold Road structure over IC Railroad has been replaced with a 30” pipe. It’s no	This was removed in the new draft.	OK

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		longer considered a bridge since it is less than 20' in length.		
B54	8-31	Question: does the planning-level cost estimate for the fixed commuter rail service discussed on this page include both capital and operating expenses? Consider clarifying.	This was addressed in the new draft.	OK
B55	8-38	Please revise the reference to the Tennessee State Freight Plan to reflect the 2018 update. Consider providing goals from the 2018 Tennessee Statewide Multimodal Freight Plan in a similar fashion to the goals provided for Kentucky.	This has been updated in the new draft.	OK
B56	8-45 – 8-47	To what “Objectives” do the mentioned technologies relate? What “Outcomes, Outputs, or Activities” could be stated in association with these objectives? Also, it may be helpful to mention how ITS projects listed on the TIP are coordinated with the Clarksville Regional Intelligent Transportation System Architecture and Deployment Plan.	This has been updated in the new draft.	Still need to address TIP ITS projects are coordinated with Clarksville Regional Intelligent Transportation System Architecture and Deployment Plan. Requested text being added to the final.
B57	9-2	NHPP funding is 90/10 on interstates only for projects that add HOV lanes or auxiliary lanes.	This was adjusted in the new draft.	OK

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		It's 80% if lanes for single occupancy vehicles are added. Same for STBG, CMAQ, and NHFP.		
B58	10-2	Doesn't TDOT maintain a cost estimating tool for use by MPOs in generating cost estimates for planning projects? Was this tool the source of these estimates? If not, were these estimates generated solely from project lettings in the Clarksville MPA or statewide?	The process for the cost estimates was explained on Page 10-1.	May need more clarification of cost estimating tool – MPO does not have the mentioned cost estimation tool. Costs for projects in the TIP used the TIP cost for the Staged Improvement Program. Projects costs for those not listed in the TIP were developed using the methodology described on Page 10-1. The spreadsheet used to develop the cost estimates will be added to the Appendix.
B59	10-7	How are high-priority M&O projects identified and prioritized? What is the source of these projects, and how are they advanced? Consider clarifying, and describing this identification/prioritization process, the role of the Regional ITS Architecture, etc.	The high-priority M&O projects were identified by the stakeholders and the state departments. The projects are brought forth for implementation on the basis of need and added to the TIP.	This explanation may need to be made more clear on page 10-7. Revised text added to the Final
B60	10-9	National, state, and MPO goals include the provision of a well-maintained transportation system, but the MPO's project scoring does	The project scoring criteria is used only for the roadway capacity projects analyzed as part of the MTP. Maintenance projects cannot be modeled and the MPO's	Add a clarification line(s) addressing this on 10-8-

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		not appear to include any measures related to infrastructure condition. Please clarify.	maintenance needs are covered in line-item funding. Prioritization of the maintenance projects is on a case-by-case basis, determined by the MPO.	Sentences to clarify this will be added to the final report.
B61	11-3	The narrative for the Stage I projects states that these projects total \$295.8 million, while they appear to total approximately \$536.7 million. Please revise.	This has been updated in the new draft.	OK – page 11-4
B62	11-6	The narrative for the Stage II projects states that these projects total \$377.3 million, while they appear to total approximately \$730.6 million. Please revise.	This has been updated in the new draft.	OK
B63	11-8	The narrative for the Stage III projects states that these projects total \$452.7 million, while they appear to total approximately \$879.6 million. Please revise.	This has been updated in the new draft.	OK
B64	11-10	Does the MPO measure effectiveness of the fiscally-constrained project list by any of the other measures previously identified in the plan? Why does the MPO choose to only present changes in VMT, VHT, and VHD versus other measures related to safety, infrastructure condition, etc?	There are no models at the planning level for safety, infrastructure, etc. This makes measuring these items subjective. However, the project scoring criteria can be used to infer the impact these projects would have.	May need some more clarification – In-depth analysis of other measures (safety, infrastructure, etc.) requires specialized software that are costly and time-consuming to use.

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B65	11-22	Typo: under Bicycle and Pedestrian Projects, next to last sentence, should that be “Many of these bicycle and pedestrian projects are on roadways that TDOT and KYTC currently...”?	This has been updated in the new draft.	OK
B66	11-22	Similar to Ch.11.2, etc., consider including a list of “Visionary” ITS projects in this section.	The MPO has identified a visionary ITS project and added it to the new draft on page 11-22.	OK
B67	11-23	In addition to improving freight conditions, consider the statements made in the first paragraph as they relate to Incident Management noted in Ch.6.6 Security, Ch.8 Systems Management and Operation. As examples: How is incident management evaluated and improved upon utilizing the Clarksville Regional Intelligent Transportation System and Clarksville Regional Intelligent Transportation System Architecture and Deployment Plan? How is data from the system managed?	Brief statements were added to these sections to address this in the new draft.	Need to confirm that these statements were added page 6-12?? – The use of ITS in Security applications was added to the bottom of Page 6-116. The section will provide examples in the final report.
B68	11-29	The narrative states that the statewide crash rate for such a facility is 3.29, while the emphasis box states it is 2.39. Please clarify and revise.	This was corrected in the new draft.	Is the crash rate 2.69 or 2.39?- Both the narrative and the emphasis box were incorrect in the previous drafts. The 2.69 is the proper value.

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B69	11-29	Typo: last paragraph, second bullet, should read "TWLTL".	This was adjusted in the new draft.	OK
B70	Appendix E	Please provide documentation related to TDOT's validation of the CUAMPO travel demand model (i/e approval letter, correspondence, etc).	This was added to the new draft at the end of the appendix.	OK