

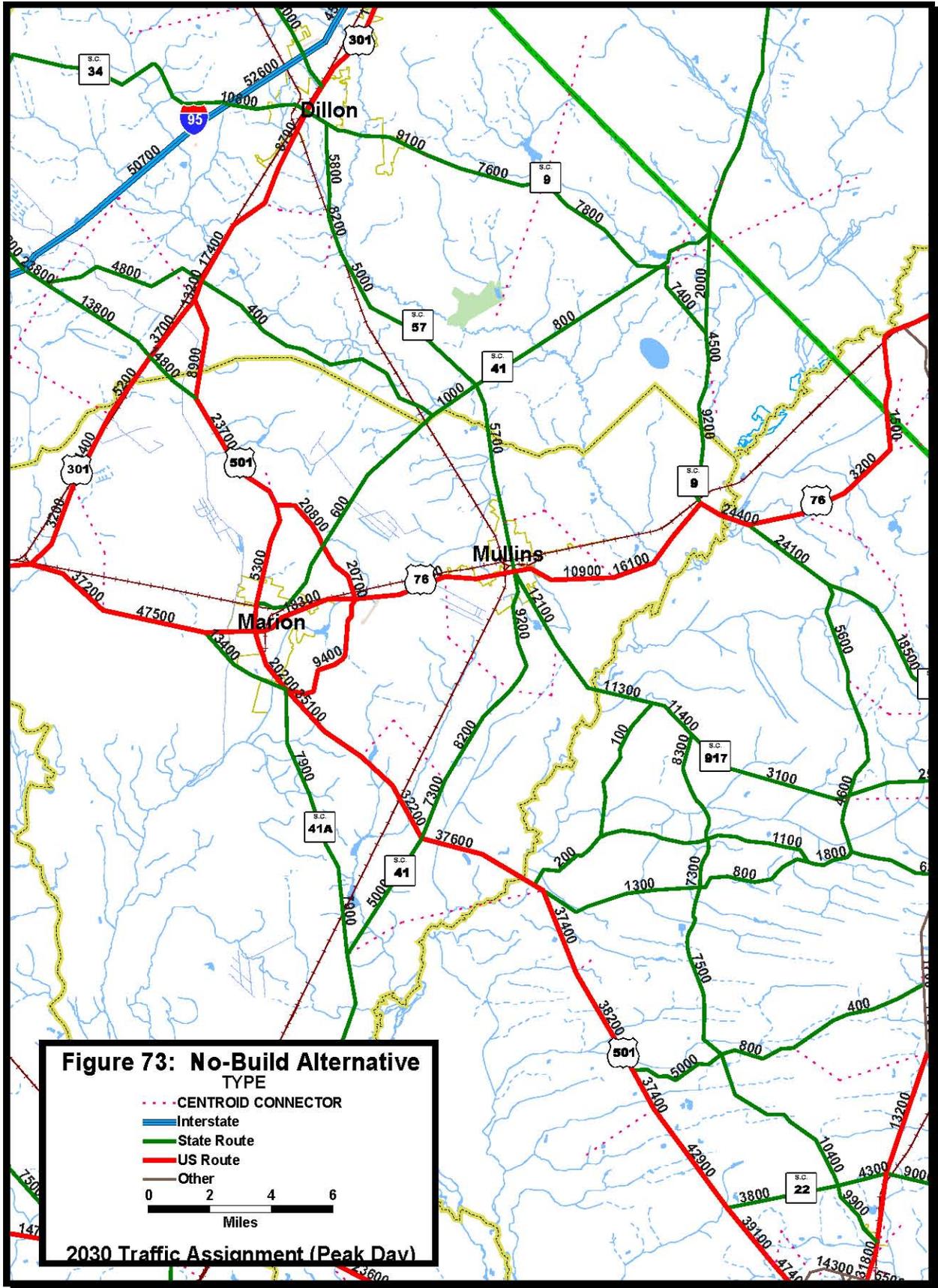
The 2030 Traffic Assignments for the Peak Day Traffic for the No-build Alternative and Alternatives 1 through 8 are shown in Figures 73 through 81. Selected link volumes are summarized in the following table.

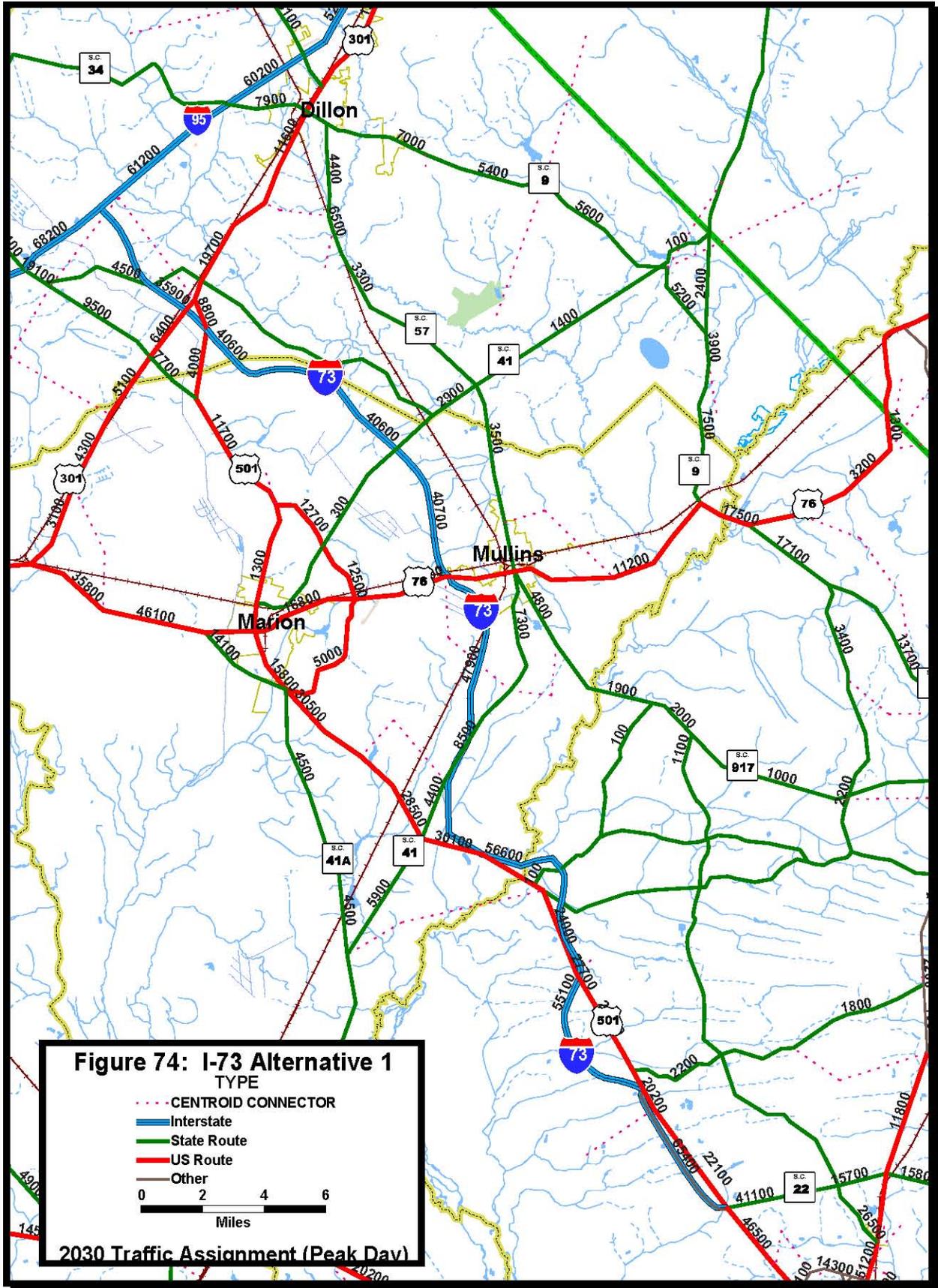
Route	Location	No-Build	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt.6	Alt. 7	Alt. 8
I-95	North of SC 34	52,600	60,200	68,100	62,500	61,300	60,400	68,900	61,800	67,100
I-95	South of SC 34	50,700	61,200	71,700	64,200	62,900	62,100	72,700	63,400	70,100
I-73	South of I-95	-	35,900	34,000	40,100	31,100	36,900	35,300	27,000	33,800
I-73	North of US 76	-	40,700	32,700	43,700	40,700	42,400	33,000	43,700	31,400
I-73	South of US 76	-	47,900	51,900	62,500	56,400	48,400	63,700	57,800	48,100
I-73	North of SC 22	-	65,400	57,300	58,000	65,900	56,200	59,300	57,100	65,600
SC 38	South of I-95	23,800	19,100	21,300	21,200	24,000	18,200	21,400	26,500	20,600
SC 34	South of I-95	10,800	7,900	5,700	7,600	8,500	7,800	5,800	7,800	5,200
SC 9	North of SC 41	7,800	5,600	3,700	3,600	4,700	4,600	3,100	4,800	3,400
SC 9	South of US 76	24,100	17,100	14,400	13,600	16,500	16,000	12,500	15,400	16,100
US 501	South of SC 38	23,700	11,700	21,400	15,200	15,100	10,700	21,600	18,600	19,800
US 501	North of SC 41	32,200	28,500	30,600	23,100	23,100	29,400	23,100	24,000	31,600
US 501	South of SC 41	37,600	30,100	33,900	26,200	24,900	31,300	27,400	25,800	35,500
US 501	North of SC 22	42,900	22,100	34,300	34,600	23,600	33,800	35,900	34,400	24,100
US 378	East of SC 41	20,500	16,400	16,600	16,300	16,100	16,400	16,600	16,900	16,800

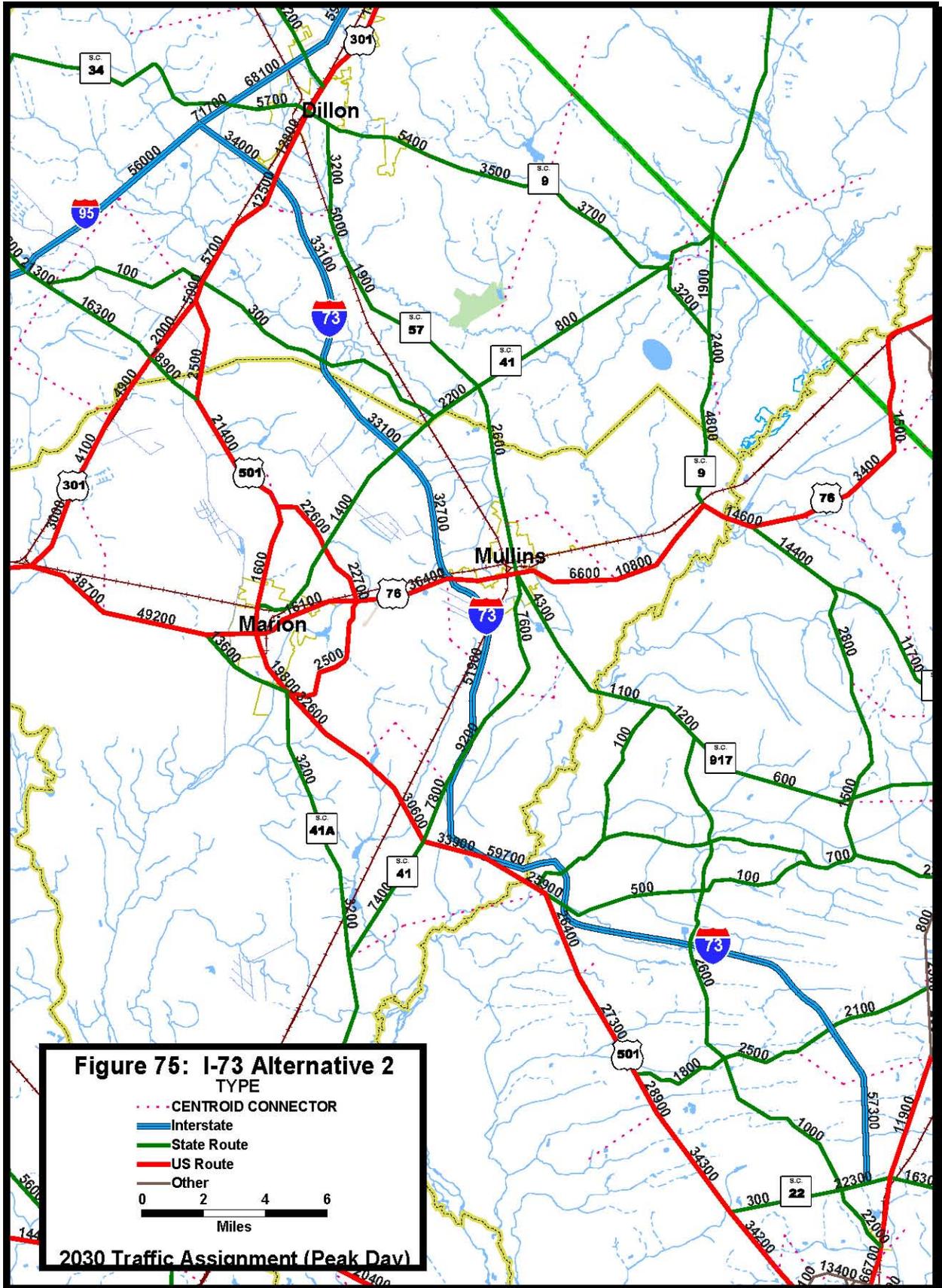
Along the northern sections of I-73, most of the alternatives are projected to carry between approximately 34,000 to 37,000 vehicles per day. Alternative 3 would carry the most traffic (40,100 vehicles per day), while Alternative 7 would carry the least traffic (27,000 vehicles per day). The I-73 Alternatives with the southern terminus interchange closer to S.C. Route 22/U.S. Route 501 (Alternatives 1, 4, and 8) would continue to carry more traffic on the southern portion of I-73 than those with the southern terminus located toward US 701.

The 2030 Peak Day Traffic assignments were compared to the 2030 AADT traffic assignments. The difference between the Peak Day and AADT assignments for the selected link volumes are summarized in the following table.

Route	Location	No-Build	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt.6	Alt. 7	Alt. 8
I-95	North of SC 34	3,500	5,700	9,200	7,200	6,200	5,800	10,400	6,100	9,400
I-95	South of SC 34	300	4,500	9,200	5,900	5,100	4,900	10,600	4,700	8,800
I-73	South of I-95	-	23,100	14,500	24,600	21,100	23,100	16,400	16,700	15,400
I-73	North of US 76	-	18,900	10,500	21,800	20,500	19,400	12,900	20,600	9,400
I-73	South of US 76	-	28,600	28,300	33,900	22,500	27,400	34,300	23,300	24,800
I-73	North of SC 22	-	29,800	35,800	32,100	27,800	35,100	32,700	32,500	27,800
SC 38	South of I-95	3,500	4,500	10,100	5,400	5,300	3,800	9,400	7,100	9,200
SC 34	South of I-95	2,900	1,500	900	2,000	2,100	1,800	1,000	1,700	600
SC 9	North of SC 41	2,500	1,400	500	1,000	800	2,400	900	800	500
SC 9	South of US 76	10,700	7,200	6,300	7,400	7,900	7,200	6,600	7,600	7,000
US 501	South of SC 38	4,200	6,100	12,400	5,300	7,000	5,000	11,800	9,600	10,700
US 501	North of SC 41	7,600	6,900	7,400	5,800	10,700	6,700	7,100	11,200	9,400
US 501	South of SC 41	9,100	7,200	9,700	7,300	12,000	7,700	8,800	12,700	12,300
US 501	North of SC 22	12,900	15,900	10,100	14,200	17,400	10,300	15,900	12,600	17,900
US 378	East of SC 41	6,000	4,500	5,200	5,200	4,800	4,900	5,300	5,700	5,100





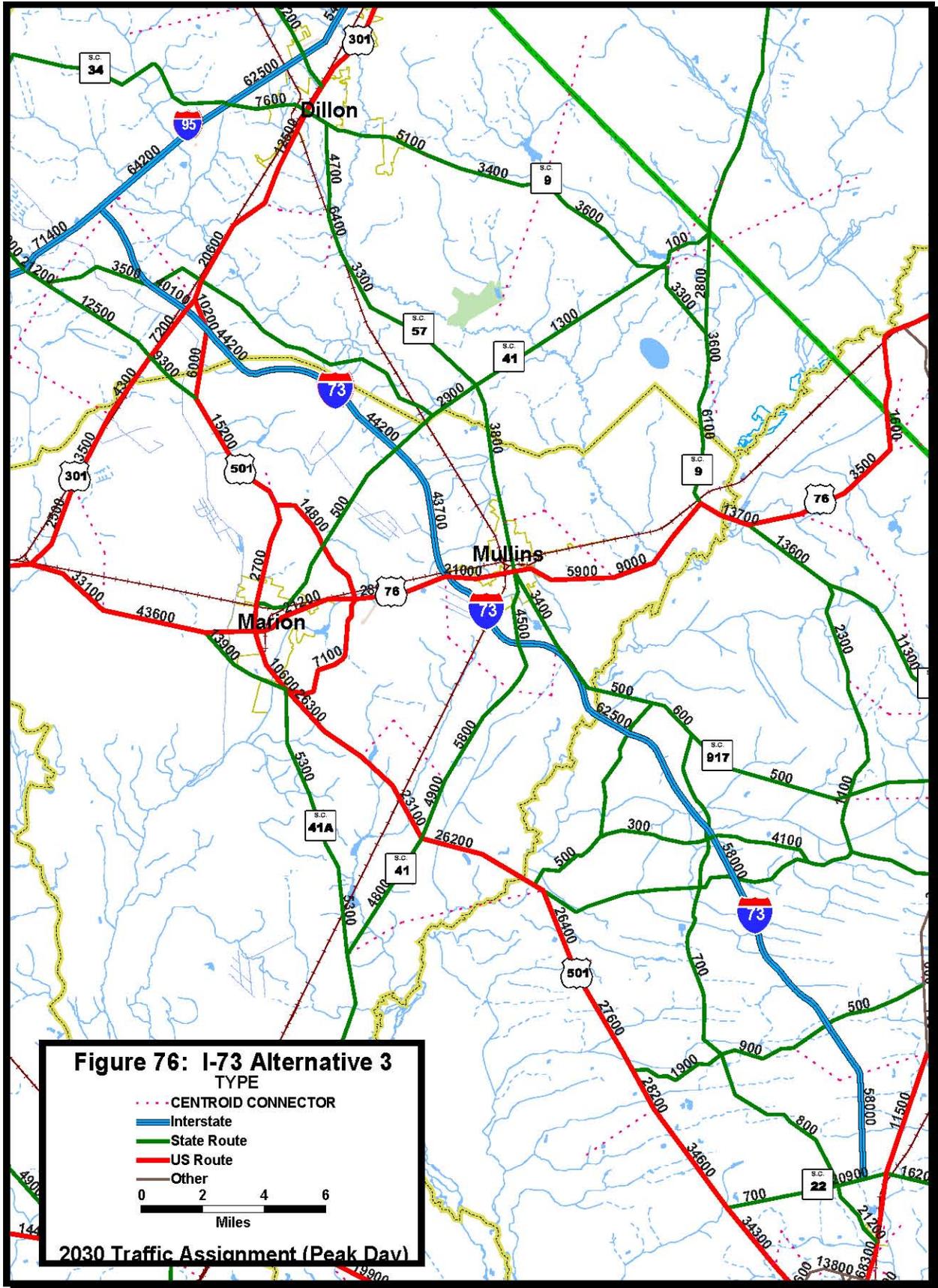


**Figure 75: I-73 Alternative 2**  
**TYPE**

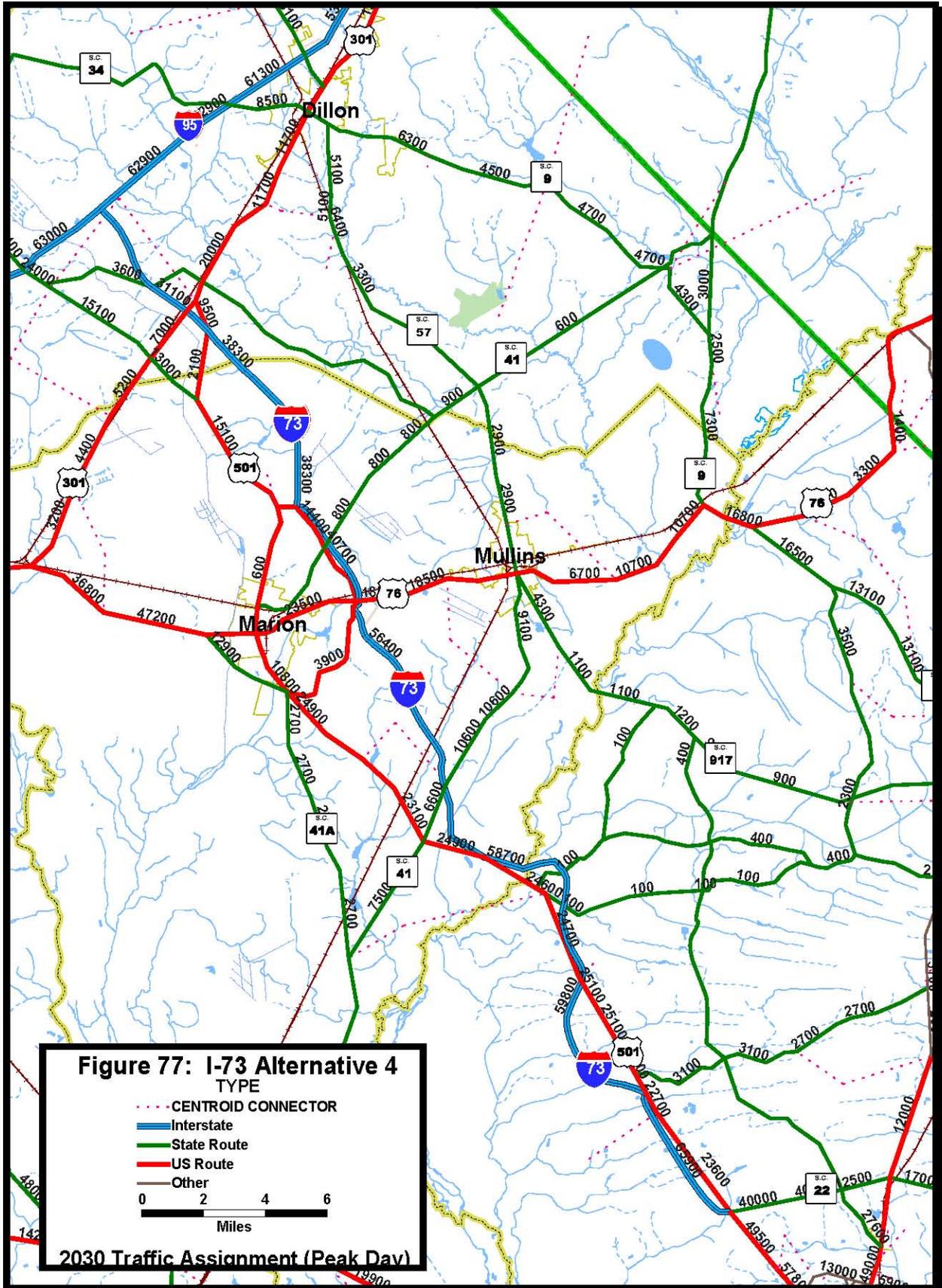
- ..... CENTROID CONNECTOR
- Interstate
- State Route
- US Route
- Other

0 2 4 6  
Miles

**2030 Traffic Assignment (Peak Day)**



**Figure 76: I-73 Alternative 3**  
**TYPE**  
..... CENTROID CONNECTOR  
Interstate  
State Route  
US Route  
Other  
0 2 4 6  
Miles  
**2030 Traffic Assignment (Peak Day)**

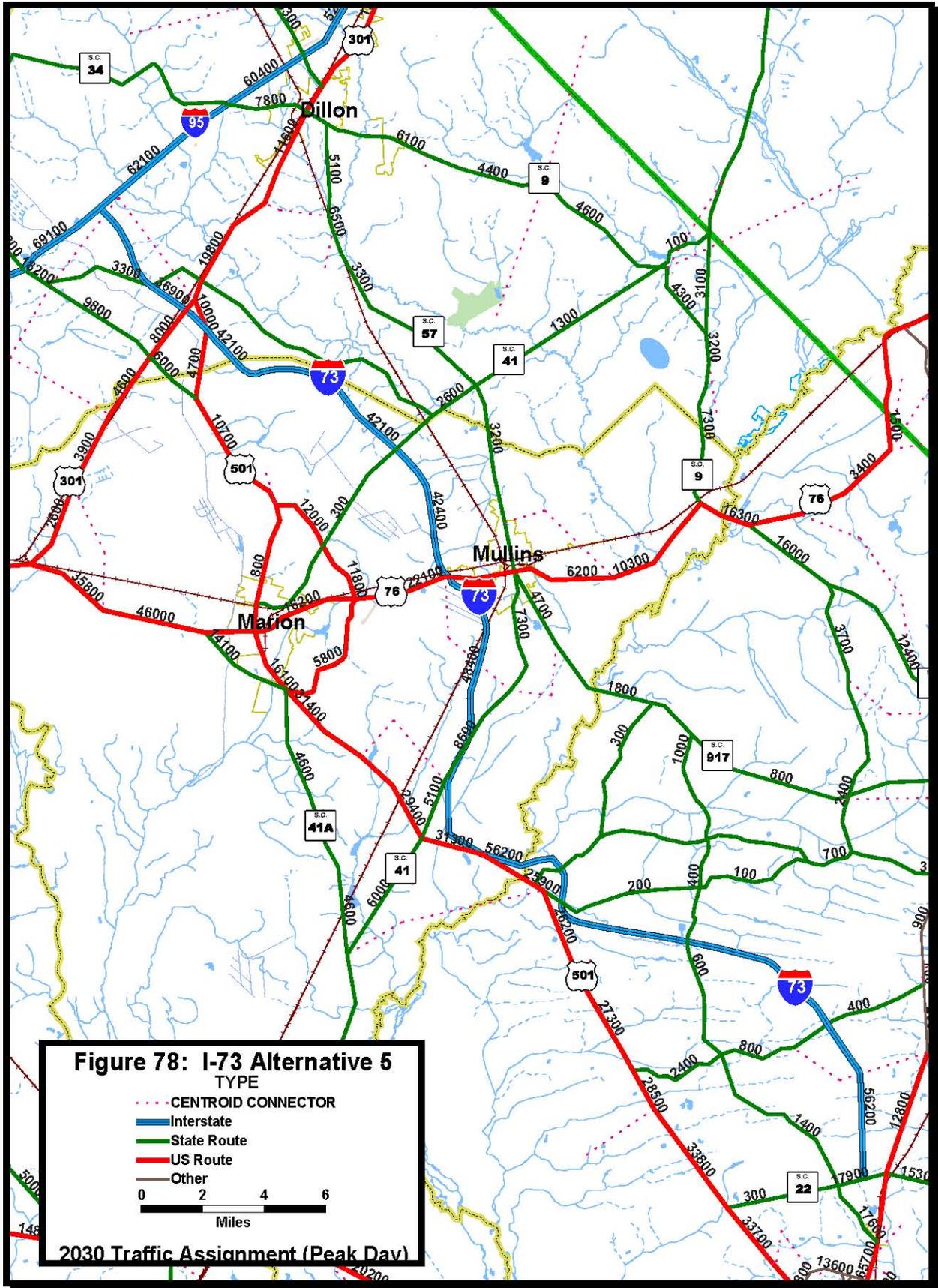


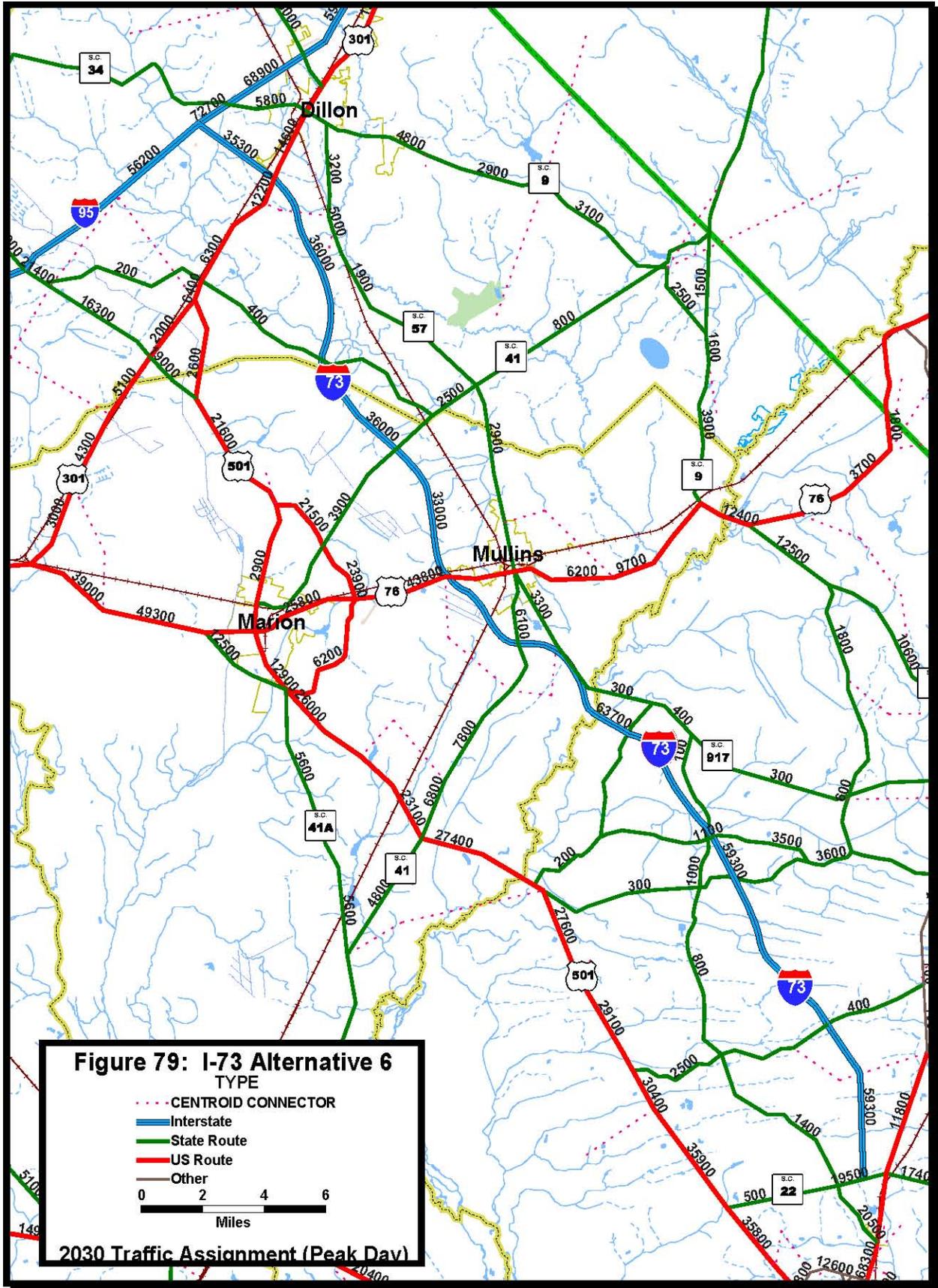
**Figure 77: I-73 Alternative 4**  
**TYPE**

- ..... CENTROID CONNECTOR
- Interstate
- State Route
- US Route
- Other

0 2 4 6  
Miles

**2030 Traffic Assignment (Peak Day)**





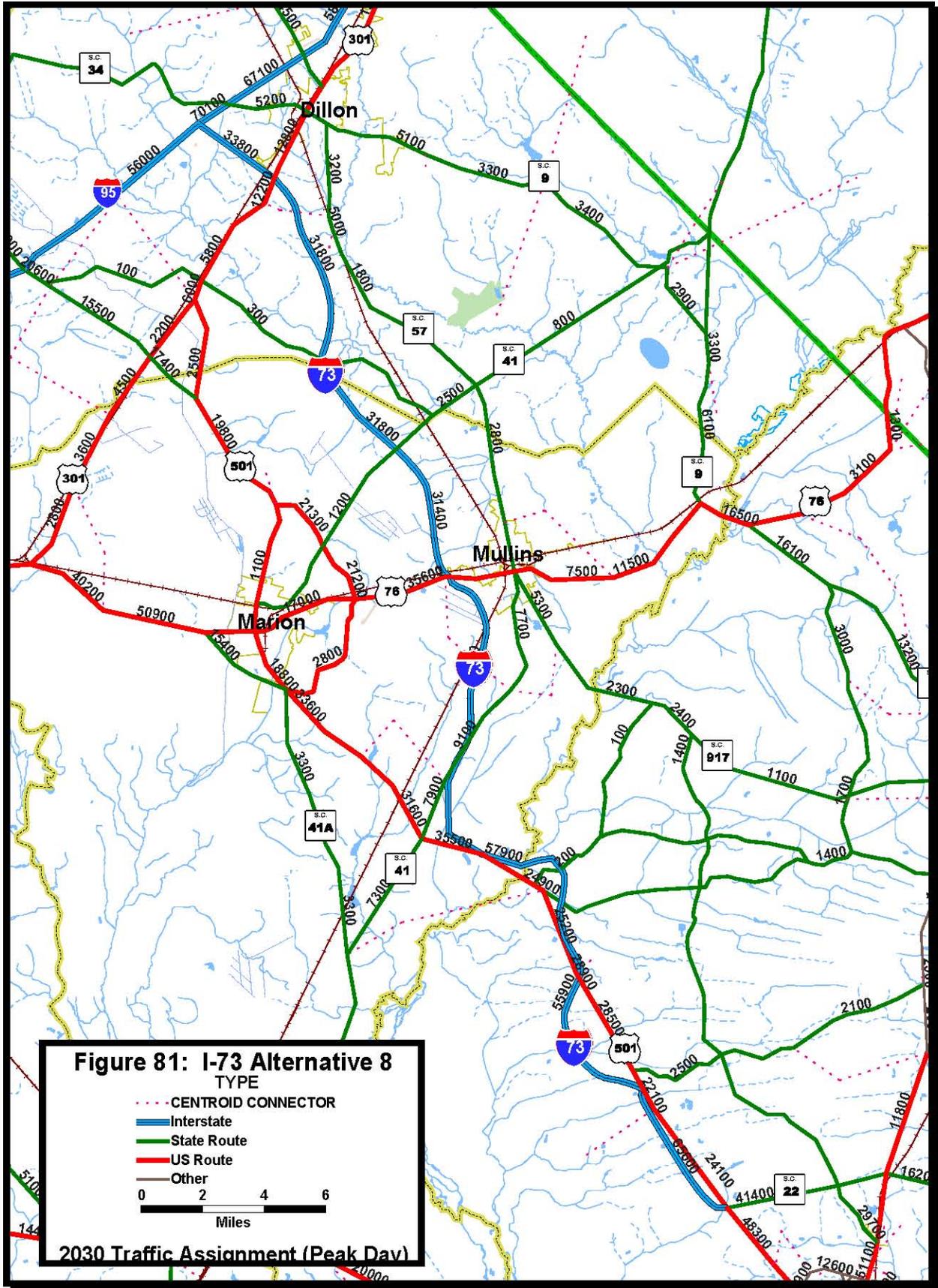
**Figure 79: I-73 Alternative 6**  
 TYPE

- ..... CENTROID CONNECTOR
- Interstate
- State Route
- US Route
- Other

0 2 4 6  
 Miles

**2030 Traffic Assignment (Peak Day)**





**Figure 81: I-73 Alternative 8**  
 TYPE

- ..... CENTROID CONNECTOR
- Interstate
- State Route
- US Route
- Other

0 2 4 6  
 Miles

**2030 Traffic Assignment (Peak Day)**

The comparison of the 2030 Peak Day traffic assignments to the 2030 AADT assignments indicates that the increased peak period traffic would be carried primarily by the I-73 alternatives, with moderate increases in traffic along U.S. Route 501. Compared to the 2030 AADT assignments, smaller increases in traffic would occur on I-95, S.C. Route 38, S.C. Route 34 S.C. Route 9, and U.S. Route 378.

The 2030 Peak Day Traffic assignments were compared to the 2030 Three Month Peak Period Average Daily traffic assignments. The difference between the Peak Day and 2030 Three Month Peak Period Average Daily Traffic assignments for the selected link volumes are summarized in the following table.

Route	Location	No-Build	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt.6	Alt. 7	Alt. 8
I-95	North of SC 34	2,600	3,600	5,800	5,300	4,500	4,200	7,200	4,300	6,800
I-95	South of SC 34	100	2,600	5,200	4,100	3,500	3,300	6,400	3,500	6,400
I-73	South of I-95	-	18,400	8,600	19,000	18,400	19,200	10,800	14,200	12,700
I-73	North of US 76	-	14,200	6,500	14,600	17,200	15,300	9,000	16,300	6,400
I-73	South of US 76	-	23,200	21,600	25,400	18,000	21,400	25,500	16,000	20,500
I-73	North of SC 22	-	19,800	27,100	23,800	19,600	26,900	24,000	24,900	18,100
SC 38	South of I-95	1,700	4,500	9,100	5,300	5,100	3,900	8,200	5,200	8,600
SC 34	South of I-95	2,200	1,300	300	2,000	2,000	1,900	0	1,100	600
SC 9	North of SC 41	1,700	700	400	1,000	500	600	700	300	200
SC 9	South of US 76	7,200	5,400	4,600	6,000	6,200	5,600	5,200	6,000	5,200
US 501	South of SC 38	2,800	5,600	11,000	4,500	6,300	4,700	10,100	7,200	9,700
US 501	North of SC 41	4,200	2,800	3,700	3,600	6,000	3,300	4,500	8,800	5,000
US 501	South of SC 41	5,100	3,000	6,000	4,700	7,100	4,100	5,900	10,100	7,600
US 501	North of SC 22	7,400	14,000	6,400	9,800	13,400	6,700	11,100	7,600	16,000
US 378	East of SC 41	4,000	2,800	3,200	3,800	2,900	3,100	3,400	4,000	2,900

The comparison of the 2030 Peak Day traffic assignments indicates that the increased peak period traffic would be carried primarily by the I-73 alternatives. Compared to the 2030 Three Month Peak Period Average Daily traffic assignments, slight increases in traffic would occur on U.S. Route 501, I-95, S.C. Route 38, S.C. Route 34 S.C. Route 9, and U.S. Route 378.

### **Evaluation of Individual Peak Day I-73 Alternative Alignments**

As was done previously with the other 2030 traffic assignments, the individual I-73 Peak Day Alternatives were evaluated and compared against each other with respect to their length, traffic assignments, vehicles miles traveled, and traffic density to identify which alternative carried the most traffic, provided the most vehicles miles of travel, or had the highest traffic density. The results of the analysis are summarized in the following table.

	ALT 1	ALT 2	ALT 3	ALT 4	ALT 5	ALT 6	ALT 7	ALT 8
Total Length	44.87	47.61	43.12	42.7	47.51	43.22	45.32	44.97
TOTAL VMT	2,185,241	2,258,068	2,287,320	2,169,528	2,319,646	2,186,151	2,258,556	2,064,970
Average AADT	54,129	50,473	49,676	55,946	53,558	53,776	53,788	44,856
Average VMT	273,155	322,581	457,464	271,191	331,378	364,358	322,651	229,441
Average Density	21.26	20.70	23.15	28.54	21.31	22.08	21.75	20.04

As shown in the tables, the Average AADTs are within a range between approximately 45,000 vehicles per day and 56,000 vehicles per day. Alternative 3 would continue to have the highest Average VMT of all the alternatives.

The eight I-73 alternatives during the Peak Day Period were ranked based on these MOE following the same process used to rank the alternatives in the other 2030 assignments. The rankings are summarized in the following table.

	ALT 1	ALT 2	ALT 3	ALT 4	ALT 5	ALT 6	ALT 7	ALT 8
Total Length	4	8	2	1	7	3	6	5
TOTAL VMT	6	4	2	7	1	5	3	8
Average AADT	2	6	7	1	5	4	3	8
Average VMT	6	5	1	7	3	2	4	8
Average Density	6	7	2	1	5	3	4	8
Average Ranking	4.8	6.0	2.8	3.4	4.2	3.4	4.0	7.4
Final Ranking	6	7	1	2	5	2	4	8

Based on this evaluation of the use of each Peak Day Alternative, Alternative 3 was the highest ranked alternative, with Alternatives 4 and 6 following. Alternatives 5 and 7 had similar average rankings. Alternatives 1, 2 and 8 had the lowest rankings with Alternative 8 being the lowest ranked alternative.

### Travel Time Maps

Travel time maps were created for each of the Peak Day alternatives. As with the previous travel time maps, the fixed starting location was the junction of S.C. Route 22 with U.S. Route 17. The distance traffic could travel in ninety minutes from the junction of U.S. Route 17 and S.C. Route 22 was mapped for each alternative in five minute intervals and are shown in Figures 82 through 90.

The Travel time maps show that the construction of I-73 would continue to allow traffic to reach I-95 faster than the No-build Alternative. In the Peak Day No-Build condition (Figure 82), traffic will take more than 90 minutes to reach I-95 from the junction of U.S. Route 17 and S.C. Route 22. Depending on which I-73 alternative is constructed, the amount of time necessary for traffic to reach I-95 ranges from about 65 to 70 minutes. This continues to demonstrate the I-73 Build Alternatives would provide a significant time savings to the public.

