

# PURPOSE AND NEED SCREENING SUMMARY TABLES



Representative TDM Build Option	Build Option 2	Build Option 2	Build Option 2	Build Option 2	Build Option 5	Build Option 5	Build Option 5	Build Option 5	Build Option 5	Build Option 5	Build Option 5	Build Option 5	Build Option 5	Build Option 5	Build Option 5
Criteria	Sections			Sections			Sections			Sections			Sections		
	T1 T5	T1 T5	T1 T5	T1 T5	T1 T6	T1 T6	T1 T6	T1 T6	T1 T6 T13	T1 T6 T13	T1 T6 T13	T1 T6 T13	T1 T6 T14 T15	T1 T6 T14 T15	T1 T6 T14 T15
	BN1	BN1	BN1	BN1	BN2	BN2	BN2	BN2	BN3	BN3	BN3	BN3	BN4	BN4	BN4
#	D11 D1	D11 D4	D12 D8 D2	D12 D8 D3	D10 D1	D10 D4	D13 D8 D2	D13 D8 D3	D10 D1	D10 D4	D13 D8 D2	D13 D8 D3	D16 D14 D10 D1	D16 D14 D10 D4	D16 D14 D13 D8 D2
#	1	2	3	4	7	8	9	10	13	14	15	16	19	20	21
1. Average % Change in Accessibility (compared to No Build baseline)	2.22%	2.22%	2.22%	2.22%	3.43%	3.43%	3.43%	3.43%	3.43%	3.43%	3.43%	3.43%	3.43%	3.43%	3.43%
2. Area between the alternative and planning boundary between I-55 and I-74 (sq miles)	1.72	3.09	2.61	2.94	2.78	4.15	3.68	4.02	3.86	5.23	4.76	5.09	6.83	8.20	7.73
3a. Decrease in congested road miles (v/c>0.8)	48	48	48	48	58	58	58	58	58	58	58	58	58	58	58
3b. % change in v/c>0.8 (% decrease of roadways with v/c>0.8)	3.19%	3.19%	3.19%	3.19%	4.05%	4.05%	4.05%	4.05%	4.05%	4.05%	4.05%	4.05%	4.05%	4.05%	4.05%
4. Travel time savings from 2 n/s pairs <sup>1</sup> (minutes saved)	1.30	1.30	1.30	1.30	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
5. Travel time savings from 2 e/w pairs <sup>2</sup> (minutes saved)	-2.91	-2.91	-2.91	-2.91	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44
6. % increase in area with travel within 5 minutes to the interstate (sq miles)	26%	26%	26%	26%	27%	27%	27%	27%	27%	27%	27%	27%	27%	27%	27%
7. Cumulative travel time savings to/from major generator (vehicle hours per day) <sup>3</sup>	323	323	323	323	558	558	558	558	558	558	558	558	558	558	558
8. Network Wide Travel time savings (number of hours saved)	3,245	3,245	3,245	3,245	4,806	4,806	4,806	4,806	4,806	4,806	4,806	4,806	4,806	4,806	4,806

Representative TDM Build Option	Build Option 5	Build Option 4	Build Option 5	Build Option 5	Build Option 5	Build Option 5	Build Option 4	Build Option 2	Build Option 2	Build Option 2	Build Option 2	Build Option 5	Build Option 5	Build Option 5	Build Option 5
Criteria	Sections			Sections			Sections			Sections			Sections		
	T1 T6 T14 T15	T1 T6 T14 T15	T1 T6 T14 T16	T1 T6 T14 T16	T1 T6 T14 T16	T1 T6 T14 T16	T1 T6 T14 T16	T2 T7	T2 T7	T2 T7	T2 T7	T2 T8	T2 T8	T2 T8	T2 T8
	BN4	BN4	BN5	BN5	BN5	BN5	BN5	BN1	BN1	BN1	BN1	BN2	BN2	BN2	BN2
#	D16 D14 D13 D8 D3	D17 D7	D15 D14 D10 D1	D15 D14 D10 D4	D15 D14 D13 D8 D2	D15 D14 D13 D8 D3	D18 D7	D11 D1	D11 D4	D12 D8 D2	D12 D8 D3	D10 D1	D10 D4	D13 D8 D2	D13 D8 D3
#	22	25	26	27	28	29	32	33	34	35	36	39	40	41	42
1. Average % Change in Accessibility (compared to No Build baseline)	3.43%	1.82%	3.43%	3.43%	3.43%	3.43%	1.82%	2.22%	2.22%	2.22%	2.22%	3.43%	3.43%	3.43%	3.43%
2. Area between the alternative and planning boundary between I-55 and I-74 (sq miles)	8.06	19.76	9.04	10.41	9.94	10.28	22.03	1.93	3.30	2.82	3.15	2.98	4.35	3.87	4.21
3a. Decrease in congested road miles (v/c>0.8)	58	41	58	58	58	58	41	48	48	48	48	58	58	58	58
3b. % change in v/c>0.8 (% decrease of roadways with v/c>0.8)	4.05%	3.12%	4.05%	4.05%	4.05%	4.05%	3.12%	3.19%	3.19%	3.19%	3.19%	4.05%	4.05%	4.05%	4.05%
4. Travel time savings from 2 n/s pairs <sup>1</sup> (minutes saved)	1.35	0.16	1.35	1.35	1.35	1.35	0.16	1.30	1.30	1.30	1.30	1.35	1.35	1.35	1.35
5. Travel time savings from 2 e/w pairs <sup>2</sup> (minutes saved)	0.44	-0.04	0.44	0.44	0.44	0.44	-0.04	-2.91	-2.91	-2.91	-2.91	0.44	0.44	0.44	0.44
6. % increase in area with travel within 5 minutes to the interstate (sq miles)	27%	23%	27%	27%	27%	27%	23%	26%	26%	26%	26%	27%	27%	27%	27%
7. Cumulative travel time savings to/from major generator (vehicle hours per day) <sup>3</sup>	558	210	558	558	558	558	210	323	323	323	323	558	558	558	558
8. Network Wide Travel time savings (number of hours saved)	4,806	2,737	4,806	4,806	4,806	4,806	2,737	3,245	3,245	3,245	3,245	4,806	4,806	4,806	4,806





# PURPOSE AND NEED SCREENING SUMMARY TABLES



Criteria	Representative TDM Build Option			E-W Alternative	TSM/TDM Alternative	Transit Alternative
	Build Option 5	Build Option 5	Build Option 5			
	T2 T8 T13	T3 T10	T3 T10 T13			
	BN3	BN2	BN3			
	D21 D2	D20 D2	D21 D2			
#	127	128	129			
1. Average % Change in Accessibility (compared to No Build baseline)	3.43%	3.43%	3.43%	N/A		
2. Area between the alternative and planning boundary between I-55 and I-74 (sq miles)	5.34	4.67	5.80	11.47		
3a. Decrease in congested road miles (v/c>0.8)	58	58	58	51		
3b. % change in v/c>0.8 (% decrease of roadways with v/c>0.8)	4.05%	4.05%	4.05%	3.38%		
4. Travel time savings from 2 n/s pairs <sup>1</sup> (minutes saved)	1.35	1.35	1.35	N/A	N/A	N/A
5. Travel time savings from 2 e/w pairs <sup>2</sup> (minutes saved)	0.44	0.44	0.44	N/A		
6. % increase in area with travel within 5 minutes to the interstate (sq miles)	27%	27%	27%	N/A		
7. Cumulative travel time savings to/from major generator (vehicle hours per day) <sup>3</sup>	558	558	558	315		
8. Network Wide Travel time savings (number of hours saved)	4,806	4,806	4,806	1,815		

## Legend and Notes

Criteria		Consistency with Purpose and Need			
		Least Consistent	Less Consistent	Neutral	Most Consistent
1	% Change Accessibility	0 - 1.5%	1.5-2.0%	2.0-3.0%	3.0%+
2	Sq. Mile between Alt & Planning Boundary	15.1+	10.1-15	5.1-10	≤ 5
3a	Decrease in congested road miles	<30	31-50	51-70	71+
3b	% decrease of roadways with v/c>0.8	<3%	3-4%	4-5%	5+%
4	Minutes saved between N/S pairs	less than 0.5	0.5-1	1-1.3	1.3+
5	Minutes saved between E/W pairs	-1 to -3	-1 to 0	0-0.1	0.1+
6	% increase access to interstate w/in 5 min (sq miles)	less than 10%	10-20%	20-30%	30% +
7	TT Savings between travel generators (hrs/day)	100-200	200-300	300-400	400+
8	Full network TT savings (hrs/day)	2,000-3,000	3,000-4,000	4,000-5,000	5,000+

	Alternative containing Section BN1
	Alternative containing Section BN2
	Alternative containing Section BN3
	Alternative containing Section BN4
	Alternative containing Section BN5

### Alternatives with two or more red criteria did not pass the Purpose and Need Screening

<sup>1</sup> N/S Pairs: State Farm Insurance S Campus (TAZ 170) and TAZ 11, Uptown Normal Multi-Modal (TAZ 73) and TAZ 168

<sup>2</sup> E/W Pairs: Uptown Normal Multi-Modal (TAZ 73) and TAZ 353, St. Joseph Medical Center (TAZ 114) and TAZ 353

<sup>3</sup> Major Travel Generators: Mitsubishi Motors (TAZ 57), Uptown Normal Multi-Modal (TAZ 73), Country Insurance (TAZ 83), St. Joseph Medical Center (TAZ 114), Central Illinois Regional Airport (TAZ 117), Bloomington CBD (TAZ 129), State Farm Insurance S Campus (TAZ 170)