

Physical Environment



Transportation and Traffic

These elements refer to existing and forecasted future traffic volumes and operational characteristics of the C-470 mainline, highway ramps, and the surrounding arterial street network.

ENVIRONMENTAL CONSEQUENCES

No-Action

- Limited available capacity on C-470
- Constraints to traffic getting to/from adjacent local arterials
- Lengthening of congested peak period

General Purpose Lanes

- Travel patterns would generally remain the same
- Operations and travel times would improve on C-470
- Peak period congestion on general purpose lanes would be eliminated
- Several arterial intersections would experience increased delay
- Improved safety on C-470 due to reduced congestion

Tolled Express Lanes (*Preferred Alternative*)

- Travel patterns would change slightly due to express lane access
- Increased traffic on arterials around express lanes access locations
- Operations and travel times would improve on C-470 for express lanes, while general purpose lanes would remain congested
- Reduced peak period congestion on general purpose lanes relative to no-action alternative
- Several arterial intersections would experience increased delay
- Improved safety on C-470 due to reduced congestion

MITIGATION

- Intersection improvements at the following intersections:
 - Lucent/County Line
 - Broadway/County Line
 - University/County Line
 - Quebec/County Line
- Modifications at I-25 interchange

No-Action Alternative 2025 Travel Time and Delay

	Average Travel Time (Minutes)		Average Delay (Minutes)	
	Eastbound	Westbound	Eastbound	Westbound
AM Peak Hour	34-35	31-32	20-21	17-18
PM Peak Hour	29-30	35-36	15-16	21-22
Off-Peak	13-14	13-14	N/A	N/A

General Purpose Lanes 2025 Travel Time and Delay

	Average Travel Time (Minutes)		Average Delay (Minutes)	
	Eastbound	Westbound	Eastbound	Westbound
AM Peak Hour	15-16	15-16	1-2	1-2
PM Peak Hour	17-18	18-19	3-4	4-5
Off-Peak	13-14	13-14	N/A	N/A

Tolled Express Lanes 2025 Travel Time and Delay

	Average Travel Time (Minutes)				Average Delay (Minutes)			
	Eastbound		Westbound		Eastbound		Westbound	
	ELs	GPLs	ELs	GPLs	ELs	GPLs	ELs	GPLs
AM Peak Hour	13-14	28-29	11-12	22-23	1-2	17-18	0	11-12
PM Peak Hour	11-12	26-27	12-13	31-32	0	15-16	1-2	20-21
Off-Peak	11-12	11-12	11-12	11-12	N/A	N/A	N/A	N/A

Comparison of 2025 Vehicle Miles Traveled and Vehicle Hours Traveled

	No-Action Alternative	General Purpose Lanes Alternative	Tolled Express Lanes Alternative
2025 AM Peak Hour VMT	106,000	171,000 (+61% from No-Action)	168,000 (+58% from No-Action)
2025 AM Peak Hour VHT	3,900	3,000 (-23% from No-Action)	4,000 (-3% from No-Action)
2025 PM Peak Hour VMT	108,000	174,000 (+61% from No-Action)	171,000 (+58% from No-Action)
2025 PM Peak Hour VHT	4,300	3,000 (-30% from No-Action)	4,000 (-7% from No-Action)

