

Introduction



The Jane Addams Memorial Tollway (I-90) is a 77-mile segment of the Illinois Tollway system extending from near the Wisconsin border to the Kennedy Expressway. This northwest corridor serves travelers from various communities including Rockford, Schaumburg, Rosemont and Chicago. Drivers use the route for nearly six million vehicle miles of travel per day. I-90 handles both commuter and long distance commercial, as well as heavy volumes of weekend travel in summer and fall.

Most of the I-90 infrastructure is over 50 years old. Since it was originally built in the 1950s, residential and commercial growth has strained parts of I-90 beyond its capacity, increasing delays and weakening economic activity. Although the pavement has been periodically resurfaced and repaired, most of I-90's pavement is near the end of its useful life.

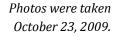
The Tollway's multi-year Congestion-Relief Program (CRP) has already delivered

significant improvements to I-90, including reconstructing and widening 16-miles from Newburg Road to Rockton Road (near the Wisconsin border), construction of a new I-90/I-39 interchange at Cherry Valley, and completion of Open Road Tolling at all five I-90 mainline plazas.

While these improvements have provided congestion relief and reduced travel times, additional improvements are needed between I-39 and the Kennedy Expressway to address the corridor's aging pavement and to meet travelers' needs now and in the future.

The current Congestion-Relief Plan (CRP) calls for resurfacing the existing pavement from the Kennedy Expressway to the Elgin Toll Plaza in 2011-2012, and from the Elgin Toll Plaza to I-39 in 2015-2016. There is no provision in the CRP to reconstruct and/or widen this portion of I-90.

Current Conditions These photos reflect the current pavement conditions on I-90 between I-39 and the Kennedy Expressway.













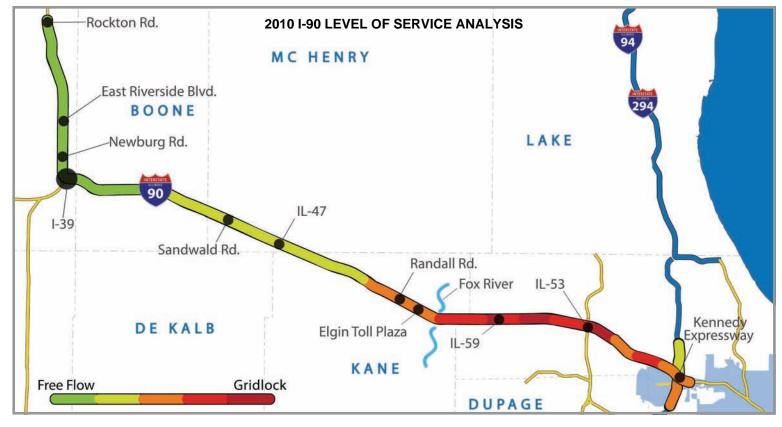
Improvements Needed



The Tollway has prepared a Master Plan for this corridor that addresses the Tollway's needs. Based on the Tollway's comprehensive Master Plan, it is clear that I-90 must be reconstructed from I-39 to the Kennedy Expressway to address the continued deterioration of the corridor's 50-year-old infrastructure. Moreover, adding a lane in each direction will help address current and future capacity needs, by reducing congestion and improving travel efficiency.

TRAFFIC CONDITIONS

The Jane Addams Memorial Tollway is designated as



Interstate 90 for its entire length. It is a key link in the I-90 roadway, which extends 3,100 miles from Boston to Seattle, the longest continuous interstate in the United States. With the completion of reconstruct and widen projects along I-94/I-294, I-88, I-355 and I-39/I-90 in 2009, the worst congestion on the Illinois Tollway system in 2010 is expected to occur on I-90. A measurement of 2010 demand compared to capacity reveals that the top four congested segments of the Illinois Tollway are on I-90. As shown in the map above, peak hour operations will be poor and will continue to decline over time. On an average day, congestion on I-90 between the Fox River and I-294 results in over 3,000 hours of vehicle delay.

Population and traffic has grown significantly on I-90 since it was originally opened in 1959, and this growth is expected to continue. Population projections for Kane and McHenry Counties over the next 20 years exceed 40%. Winnebago County, home of Rockford, is expected to grow 20% over the next 20 years. Traffic has increased more than 400% on portions of this corridor in the past 30 years, and more than 12,000 commercial trucks per day used I-90 in 2009.

I-90 serves the Schaumburg employment center, O'Hare Airport and its surrounding employment centers, and ultimately the Chicago central business district. Many national and international corporations have headquarters located along the corridor including Ameritech, Motorola and Sears. The on-going O'Hare Airport expansion and its planned Western Access will only increase traffic on the corridor. A recent study by the Tollway predicts the widening of I-90 will

Improvements Needed (continued)



create 11,500 additional permanent jobs within the Chicago region compared to not widening. $\$

PAVEMENT CONDITIONS

Most of I-90 was built over 50 years ago and is coming to the end of its useful life. The Remaining Service Life (RSL) of Illinois Tollway pavement is measured annually, to determine how many years the existing pavement can remain without requiring major repairs. As the pavement ages, the frequency, and extent of repairs increases. The Tollway's General Engineering Consultant's latest annual report estimates that over 80% of I-90 will require major repairs by the end of 2012.

The current CRP includes funding for the following projects:

	Construction Period	2010 Dollars	CRP Budget
Rehabilitat	e & Resurface		
Kennedy Expressway to IL-53	2011	\$54.5 M	\$57.2 M
IL-53 to Elgin Toll Plaza	2011	\$92.0 M	\$96.6 M
Elgin Toll Plaza to Sandwald Rd.	2015	\$37.4 M	\$47.7 M
Sandwald Rd. to Newburg Rd.	2015	\$110.0 M	\$140.4 M
	TOTAL	\$293.9 M	\$341.9 M
Reconstru	ct/Add Lane		
Design Only	2015-2016	\$119.0 M	\$151.9 M
	GRAND TOTAL	\$412.9 M	\$493.8 M

Note: Intermittent pavement repairs will be required as needed between 2010-2016. These costs are not shown and are included in the systemwide funds.

COMPLETE

Sixteen miles of I-90 have been reconstructed and widened to three lanes in each direction from the Wisconsin state border to I-39. Along with a new I-90/I-39 Interchange, travelers in the Rockford area are benefiting from congestion relief, reduced travel times and greater mobility. The pavement and infrastructure has been improved at mainline toll plazas to incorporate Open Road Tolling.

EXISTING CONDITIONS

- Two lanes, each direction, from I-39 to the Elgin Toll Plaza.
- Three lanes, each direction, from Elgin Toll Plaza to the Kennedy Expressway.

FUTURE NEEDS

- Three lanes, each direction, from I-39 to the Elgin Toll Plaza.
- Four lanes, each direction, from the Elgin Toll Plaza to the Kennedy Expressway.
- New/Expanded Access: Interchange improvements at Elmhurst Rd., Barrington Rd. and IL-47 have outside funding commitments. Other access points could be considered, per the Tollway's Interchange and Roadway Cost Sharing Policy.

TRANSIT OPTIONS

- **STAR Line:** A separate study being conducted by Metra for the placement of commuter rail in the median of I-90 from the Kennedy Expressway to IL-59.
- Express Bus Service with Stations (EBS): An express bus service with median stations that will utilize High Occupancy Toll (HOT) Lanes in the median of I-90 from the Kennedy Expressway to IL-59.

Improving I-90 — February 25, 2010 Page 3

Optional Approaches





RECONSTRUCT LATER

This option includes intermittent pavement repairs and resurfacing from 2010 through 2017. Reconstruction would start in 2017 and finish in 2022. No widening is included in this option.

This option incorporates the repair/resurfacing work included in the current CRP to 2017.

2

RECONSTRUCT & WIDEN LATER

This option is the same as Option 1, but would also widen I-90 from I-39 to the Kennedy Expressway beginning in 2017. Widening would provide three lanes in each direction between I-39 and the Elgin Toll Plaza, and four lanes in each direction from the Elgin Toll Plaza to the Kennedy Expressway. Improvements would be complete in 2022.

This option incorporates the repair/resurfacing work included in the current CRP to 2017.

3

RECONSTRUCT & WIDEN NOW

This option includes intermittent pavement repairs in 2010. Full reconstruction and widening would start in 2011 and finish in 2016. Provides three lanes in each direction between I-39 and the Elgin Toll Plaza, and four lanes in each direction from the Elgin Toll Plaza to the Kennedy Expressway.

This option replaces the repair/resurfacing work called for in the current CRP to 2017.



RECONSTRUCT & WIDEN LATER + EBS RESERVE ROW WITH HOT

This option is the same as Option 2, but also includes an Express Bus Service with stations (EBS) and High Occupancy Toll (HOT) Lanes in the median of I-90. EBS/HOT could be implemented during the same timeline as reconstructing and widening; starting in 2017 and finishing in 2022. All stations and busses would be funded by another agency.

This option incorporates the repair/resurfacing work included in the current CRP to 2017.



RECONSTRUCT & WIDEN LATER + STAR LINE RESERVE ROW

This option is similar to Option 4, but would widen to accommodate a future commuter rail line in the median of I-90, rather than an EBS. All infrastructure for the rail line would be funded and implemented by another agency.

This option incorporates the repair/resurfacing work included in the current CRP to 2017.

Optional Approaches (continued)



6

RECONSTRUCT LATER + STAR LINE RESERVE ROW

This option is similar to Option 5, but does not widen the existing I-90 corridor; it simply reconstructs the existing number of lanes in-kind. All infrastructure for the rail line would be funded and implemented by another agency.

This option incorporates the repair/resurfacing work included in the current CRP to 2017.



RECONSTRUCT & WIDEN NOW + EBS RESERVE ROW WITH HOT

The project timeline is similar to Option 3, but incorporates the reserved ROW infrastructure improvements needed for future Express Bus Service with stations (EBS) and High Occupancy Toll Lanes in the I-90 median (similar to option #4). The additional costs for reserving the ROW and for implementing the EBS transit components would be funded by others.



RECONSTRUCT WEST OF STAR LINE NOW, EAST OF IL-59 LATER

This option includes intermittent pavement repairs in 2010. Full reconstruction and widening, from I-39 to IL-59, would start in 2011 and finish in 2014. The other options (except Option 6) could be implemented from IL-59 to the Kennedy Expressway once funding for the STAR Line or other regional improvements have been identified. (Assume to be 2017 to match other options).



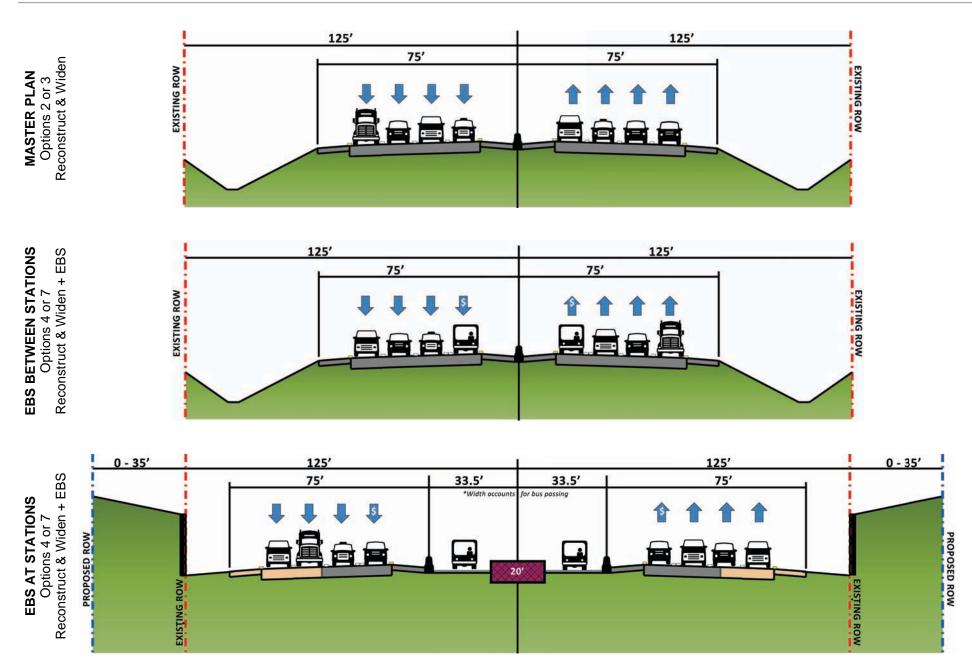
DO NOTHING

This option includes no programmatic reconstruction or widening of I-90 from I-39 to the Kennedy Expressway, relying instead on annual repairs to the existing infrastructure, beginning with the resurfacing projects from 2010 through 2017. The repairs would increase exponentially every year after these resurfacing projects until the system fails.

This option incorporates the repair/resurfacing work included in the current CRP to 2017.

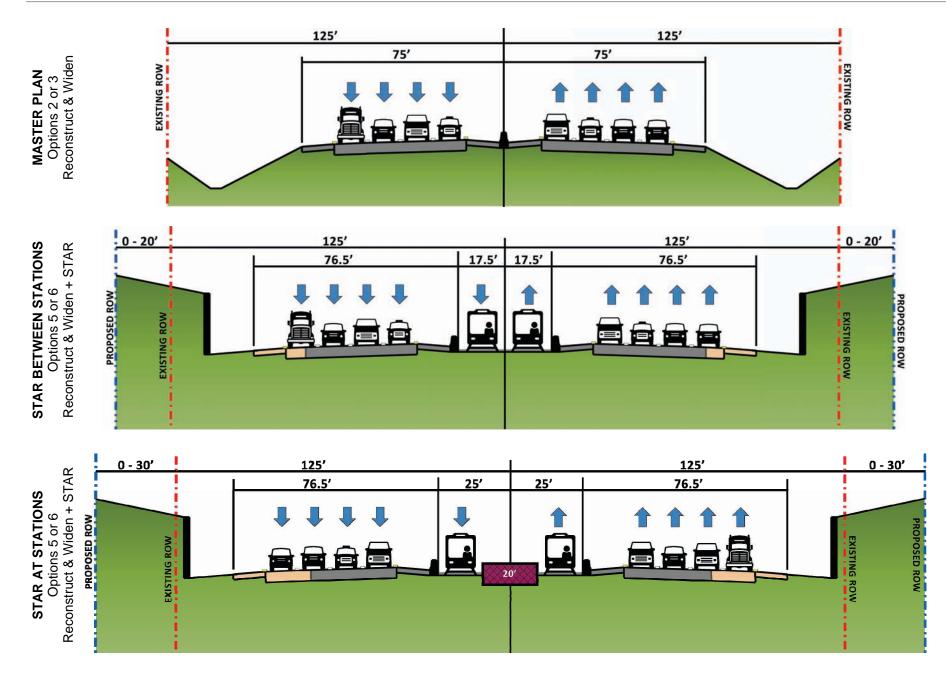
Express Bus Service with Stations (EBS) Cross Sections





STAR Line Cross Sections





Evaluation Criteria



Nine options were evaluated using a consistent set of criteria, which are reflected in the tables on the following pages. These tables outline the year improvements would be made, a description of these improvements and their cost in 2010 dollars for each of the five criteria. Costs were computed using a 6.5% construction escalation rate per year* with the Tollway's estimated cost of capital (net of "normal" inflation, measured by the Consumer Price Index—CPI).

The evaluation criteria, along with notes concerning methodology are discussed below.

A - CONSTRUCTION in 2010 \$

Cost of new roadway and bridge construction including ROW, utility relocation, wetland mitigation, environmental remediation, fiber optics, engineering design, construction inspection and management and program oversight. Values are based on conceptual engineering estimates using recent bid prices, and include a 25% contingency.

B - REPAIRS in 2010 \$

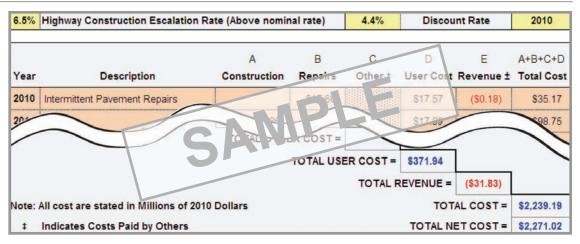
Cost of limited construction required to keep roadway and bridges in a state of good repair, including pavement patching, bridge repairs, striping, etc. Values are based on conceptual engineering estimates using recent bid prices, and include a 20% contingency.

C – OTHER in 2010 \$ (cost to reserve transit ROW)

Costs related to transit components that are not required for normal Tollway operations such as an in-line Express Bus Service with stations (EBS). Direct and indirect costs include ROW, bridge expansions, striping, lighting, intelligent transportation systems and utilities to accommodate future EBS or STAR Line construction.

ADDITIONAL TRANSIT COST

In addition to the costs above, funds will be needed for stations, parking lots, rail, rolling stock, busses, etc., in order to make the transit service operational. These funds are to be provided by the transit agency or others.



D - USER COST in 2010 \$

Costs due to congestion, including increased fuel consumption and lost productivity. Values are based on average daily time lost per user and the average hourly value of that lost time.

E - REVENUE in 2010 \$

The net revenue gain from increased highway capacity and loss of revenue due to construction impacts.

NOTES:

- ± Revenue is Net (Loss)/Gain compared to retaining existing conditions, with no construction projects, no repair projects, and thus no additional capacity.
- Construction cost comprises direct + indirect construction costs for pavement, structures, etc. required for normal Tollway operations.
- The median ROW will have to be purchased by the transit agencies. Costs for this transfer of ownership are not included in this document.

^{*}Construction costs include an annual escalation rate which is in excess of the CPI. Per Bureau of Labor Statistics, The Highway and Street Construction Producer Price Index (PPI) has increased at nearly two-and-one half times the rate of the CPI.

1 Reconstruct Later



DESCRIPTION

- Intermittent pavement repairs and resurfacing from 2010 through 2016
- Reconstruction from 2017 to 2022

BENEFITS

- Relatively low cost
- Reconstruction cost financed at a later date
- No ROW required

IMPACTS

- Unreliable pavement conditions until 2017
- Does not address congestion/capacity needs
- Delayed construction increases overall cost
- Lost revenue without widening

6.5%	Highway Construction Escalation Ra	te (Above nomir	ial rate)	4.4%	Discount Rate		2010
Year	Description	A Construction	B Repairs	C Other‡	D User Cost	E Revenue ±	A+B+C+D Total Cost
2010	Intermittent Pavement Repairs		\$17.60		\$ 17.57	(\$0.18)	\$35.17
2011	Df VA. Fl.:-	\$68.86	\$12.00		\$17.89	(\$3.19)	\$98.75
2012	Resurface Kennedy - Elgin	\$70.24	\$12.00		\$18.21	(\$3.07)	\$100.45
2013	A	•	\$11.80		\$ 18.54	(\$0.08)	\$30.34
2014	Intermittent Pavement Repairs		\$25.34		\$18.90	(\$0.08)	\$44.24
2015		\$89.59	\$6.38		\$19.23	(\$3.89)	\$115.20
2016	Resurface Elgin - Cherry Valley	\$ 91.39	\$8.37		\$19.59	(\$3.76)	\$119.35
2017		\$275.90			\$19.96	(\$2.80)	\$295.86
2018	Reconstruct Kennedy - Elgin	\$281.45			\$20.33	(\$2.72)	\$301.78
2019		\$287.11			\$20.72	(\$2.68)	\$307.83
2020	Reconstruct Elgin to IL-47	\$199.29			\$21.12	(\$3.23)	\$220.41
2021		\$202.92			\$21.52	(\$3.13)	\$224.44
2022	Reconstruct IL-47 to I-39	\$207.00			\$21.94	(\$3.02)	\$228.94
2023					\$22.37		\$22.37
2024					\$22.82		\$22.82
2025					\$23.27		\$23.27
2026					\$23.74		\$23.74
2027					\$24.22		\$24.22
	TOTAL CONSTRUCTION COST =	\$1,867	.25	V. d. d. d. d. d. d. d. d.	Ž.		8
		TOTAL OTHE	R COST =				
			TOTAL US	ER COST =	\$371.94]	
				TOTAL F	REVENUE =	(\$31.83)	
lote:	All cost are stated in Millions of 2010	Dollars			тот	AL COST =	\$2,239.19
‡	Indicates Costs Paid by Others				TOTAL N	ET COST =	\$2,271.02

2

Reconstruct & Widen Later



DESCRIPTION

- Intermittent pavement repairs and resurfacing from 2010 through 2016
- Reconstruction and widening from 2017 to 2022

BENEFITS

- Reconstruction cost financed at a later date
- Addresses congestion/capacity needs

IMPACTS

- Unreliable pavement conditions until 2017
- Delayed construction increases overall cost
- Future ability to accommodate transit can only be through the use of shared lanes and the required stations must be located outside of the I-90 ROW
- Minimal ROW required

6.5%	Highway Construction Escalation Ra	te (Above nomi	inal rate)	4.4%	Discou	nt Rate	2010
Year	Description	A Construction	B Repairs	C Other‡	D User Cost	E Revenue ±	A+B+C+D Total Cost
2010	Intermittent Pavement Repairs		\$17.60		\$17.57	(\$0.18)	\$35.17
2011		\$68.86	\$12.00	8	\$17.89	(\$3.19)	\$98.75
2012	Resurface Kennedy - Elgin	\$70.24	\$12.00		\$18.21	(\$3.07)	\$100.45
2013			\$11.80		\$ 18.54	(\$0.08)	\$30.34
2014	Intermittent Pavement Repairs		\$25.34		\$18.90	(\$0.08)	\$44.24
2015		\$89.59	\$6.38		\$19.23	(\$3.89)	\$115.20
2016	Resurface Elgin - Cherry Valley	\$91.39	\$8.37		\$19.59	(\$3.76)	\$ 119.35
2017	<u> </u>	\$442.59			\$19.96	(\$2.80)	\$462.55
2018	/iden & Reconstruct Kennedy -	\$451.50			\$20.33	(\$2.72)	\$471.83
2019		\$460.58			\$20.72	(\$2.63)	\$481.30
2020	Widen & Reconstruct Elgin to IL-47	\$223.69			\$9.38	\$5.29	\$233.07
2021	Widen & Reconstruct IL-47 to I-39	\$240.27			\$5.23	\$5.42	\$245.50
2022	Widen & Reconstruct IL-47 to 1-39	\$245.10			\$5.38	\$5.28	\$250.48
2023	•				\$4.35	\$10.28	\$4.35
2024					\$4.41	\$10.10	\$4.41
2025					\$4.48	\$9.92	\$4.48
2026					\$4.54	\$9.75	\$4.54
2027					\$4.61	\$9.59	\$4.61
	TOTAL CONSTRUCTION COST =	\$2,477	.30				
		TOTAL OTHE	R COST =				
			TOTAL USI	ER COST =	\$233.32		
				TOTAL R	REVENUE =	\$43.22	
lote:	All cost are stated in Millions of 2010	Dollars			тот	AL COST =	\$2,710.62
‡	Indicates Costs Paid by Others				TOTAL N	ET COST =	\$2,667.41

3

Reconstruct & Widen Now



DESCRIPTION

- Intermittent pavement repairs in 2010
- Reconstruction and widening from 2011 to 2016

BENEFITS

- Lowest net cost
- Provides reliable pavement conditions now
- Addresses congestion/capacity needs now
- Investing now takes advantage of current buyer's market for highway construction
- Allows reinvestment of funds currently dedicated to resurfacing
- Highest revenue

IMPACTS

- Requires immediate funding source
- Makes future median-based railroad cost prohibitive
- Ability to accommodate transit only through shared use lanes and stations must be located outside of the ROW
- Minimal ROW required

6.5%	Highway Construction Escalation Ra	te (Above nomi	inal rate)	4.4%	Discou	nt Rate	2010
		А	В	С	D	E	A+B+C+
Year	Description	Construction	Repairs	Other ‡	User Cost	Revenue ±	Total Co
2010	Intermittent Pavement Repairs		\$5.90		\$17.57	(\$0.18)	\$23.4
2011		\$290.73			\$17.89	(\$3.58)	\$308.6
2012	Widen & Reconstruct Kennedy - Elgin	\$465.16			\$18.21	(\$3.45)	\$483.3
2013		\$472.40			\$18.54	(\$3.29)	\$490.9
2014	Widen & Reconstruct Elgin to IL-47	\$198.50			\$7.95	\$6.33	\$206.4
2015	Widen & Reconstruct IL-47 to I-39	\$213.21			\$4.94	\$6.53	\$218.1
2016	Widen & Reconstruct IL-47 to 1-39	\$217.50			\$5.03	\$6.35	\$222.5
2017					\$4.94	\$11.47	\$4.9
2018					\$5.04	\$11.26	\$5.0
2019					\$5.13	\$11.05	\$5.1
2020					\$ 5. 2 3	\$10.85	\$5.2
2021					\$ 5.33	\$10.65	\$5.3
2022					\$5.44	\$10.46	\$5.4
2023					\$5.54	\$10.28	\$5.5
2024					\$5.65	\$10.10	\$5.6
2025					\$ 5.77	\$9.92	\$ 5.7
2026					\$5.88	\$9.75	\$5.8
2027					\$6.00	\$9.59	\$6.0
	TOTAL CONSTRUCTION COST =	\$1,863	.40				
		TOTAL OTHE	R COST =			46-	
		10	TOTAL USI	ER COST =	\$150.08		
				TOTAL F	REVENUE =	\$124.10	
lote:	All cost are stated in Millions of 2010	Dollars			тот	AL COST =	\$2,013.4
‡	Indicates Costs Paid by Others				TOTAL N	ET COST =	\$1,889.3



Reconstruct & Widen Later + EBS Reserve ROW with HOT



DESCRIPTION

- Intermittent pavement repairs and resurfacing from 2010 to 2016
- Reconstruction and widening from 2017 to 2022
- Adds Express Bus Service with stations (EBS) reserved ROW and High Occupancy Toll (HOT) Lanes 2017 to 2019

BENEFITS

- Reconstruction cost financed at a later date
- Addresses congestion/capacity needs
- Multi-modal elements incorporate local demand
- Future EBS provides same median stations as STAR Line, while utilizing Tollway add lanes for operations

IMPACTS

- Unreliable pavement conditions until 2017
- Delayed construction increases overall cost
- Transit funding may not be available by 2017, making the implementation date of this option indeterminable
- ROW required at station areas

ADDITIONAL TRANSIT COST

In order to make transit option operational, an additional **\$525 M** will be required, which is not included in the Other Costs. Median ROW transfer costs for transit options are also not included.

	Construction Years Funded Through Current CRP
	Construction Years Unfunded
	Non-Construction Years

6.5%	Highway Construction Escalation Ra	te (Above nom	inal rate)	4.4%	Discou	nt Rate	2010
Year	Description	A Construction	B Repairs	C Other‡	D User Cost	E Revenue ±	A+B+C+D Total Cos
2010	Intermittent Pavement Repairs		\$17.60		\$17.57	(\$0.18)	\$35.17
2011		\$68.86	\$12.00		\$17.89	(\$3.19)	\$98.75
2012	Resurface Kennedy - Elgin	\$70.24	\$12.00		\$18.21	(\$3.07)	\$100.45
2013			\$11.80		\$18.54	(\$0.08)	\$30.34
2014	Intermittent Pavement Repairs		\$25.34		\$18.90	(\$0.08)	\$44.24
2015		\$89.59	\$6.38		\$19.23	(\$3.89)	\$115.20
2016	Resurface Elgin - Cherry Valley	\$91.39	\$8.37		\$19.59	(\$3.76)	\$119.35
2017		\$442.59		\$140.25	\$19.96	(\$1.41)	\$602.80
2018	/iden & Reconstruct Kennedy - Igin	\$451.50		\$320.15	\$20.33	(\$1.36)	\$791.98
2019		\$460.58		\$325.40	\$20.72	(\$1.35)	\$806.69
2020	Widen & Reconstruct Elgin to IL-47	\$223.69			\$9.38	\$5.00	\$233.07
2021	Widen & Reconstruct IL-47 to I-39	\$240.27			\$5.23	\$5.15	\$245.50
2022	Wideli & Reconstruct IL-47 to 1-35	\$245.10			\$5.38	\$5.00	\$250.48
2023					\$ 4.35	\$9.96	\$4.35
2024					\$4.41	\$9.79	\$4.41
2025					\$4.48	\$9.62	\$4.48
2026					\$4.54	\$9.46	\$4.54
2027					\$4.61	\$9.31	\$4.61
	TOTAL CONSTRUCTION COST =	\$2,477	.30		_		
		TOTAL OTHE	R COST =	\$785.80	0	20	
		H.	TOTAL US	ER COST =	\$233.32		
				TOTAL R	REVENUE =	\$44.94	Į.
lote:	All cost are stated in Millions of 2010	Dollars			тот	AL COST =	\$3,496.42
‡	Indicates Costs Paid by Others				TOTAL N	ET COST =	\$3,451.48



Reconstruct & Widen Later + STAR Line Reserve ROW



DESCRIPTION

- Intermittent pavement repairs and resurfacing from 2010 to 2016
- Reconstruction and widening from 2017 to 2022
- Reserve ROW for Metra's planned STAR Line commuter rail system in the median of I-90

BENEFITS

- Reconstruction cost financed at a later date
- Addresses congestion/capacity needs
- Multi-modal element incorporates locally preferred transit alternative

IMPACTS

- Unreliable pavement conditions until 2017
- Delayed construction increases overall project costs
- Transit funding may not be available by 2017, making the implementation date of this option indeterminable
- Largest footprint and highest cost improvement
- ROW required throughout corridor

ADDITIONAL TRANSIT COST

In order to make transit option operational, an additional **\$1,100 M** will be required, which is not included in the Other Costs. Median ROW transfer costs for transit options are also not included.

6.5%	Highway Construction Escalation Ra	te (Above nomi	nal rate)	4.4%	Discou	nt Rate	2010
		А	В	С	D	E	A+B+C+[
Year	Description	Construction	Repairs	Other ‡	User Cost	Revenue ±	Total Cos
2010	Intermittent Pavement Repairs		\$17.60		\$17.57	(\$0.18)	\$35.17
2011	Daniel Maria	\$68.86	\$12.00		\$17.89	(\$3.19)	\$98.75
2012	Resurface Kennedy - Elgin	\$70.24	\$12.00		\$18.21	(\$3.07)	\$100.45
2013	<u>, , , , , , , , , , , , , , , , , , , </u>		\$11.80		\$18.54	(\$0.08)	\$30.34
2014	Intermittent Pavement Repairs		\$25.34		\$18.90	(\$0.08)	\$44.24
2015		\$89.59	\$6.38		\$19.23	(\$3.89)	\$115.20
2016	Resurface Elgin - Cherry Valley	\$91.39	\$8.37		\$19.59	(\$3.76)	\$119.35
2017		\$442.59		\$346.72	\$19.96	(\$1.41)	\$809.27
2018	Reconstruct Kennedy - Elgin	\$451.50		\$285.83	\$20.33	(\$1.36)	\$757.65
2019		\$460.58		\$346.41	\$20.72	(\$1.35)	\$827.71
2020	Reconstruct Elgin to IL-47	\$223.69			\$9.38	\$5.00	\$233.07
2021	D	\$240.27			\$5.23	\$5.15	\$245.50
2022	Reconstruct IL-47 to I-39	\$245.10			\$5.38	\$5.00	\$250.48
2023					\$4.35	\$9.96	\$4.35
2024					\$4.41	\$9.79	\$4.41
2025					\$4.48	\$9.62	\$4.48
2026					\$4.54	\$9.46	\$4.54
2027					\$4.61	\$9.31	\$4.61
	TOTAL CONSTRUCTION COST =	\$2,477.	30		5		
		TOTAL OTHE	R COST =	\$978.95			
			TOTAL USE	R COST =	\$233.32		
				TOTAL F	REVENUE =	\$44.94	H.
lote: A	II cost are stated in Millions of 2010 Dolla	ars			тот	AL COST =	\$3,689.58
‡	Indicates Costs Paid by Others				TOTAL N	ET COST =	\$3,644.64



Reconstruct Later + STAR Line Reserve ROW



DESCRIPTION

- Intermittent pavement repairs and resurfacing from 2010 to 2016
- Reconstruct (no widening) from 2017 to 2022
- Reserve ROW for Metra's planned STAR Line commuter rail system in the median on I-90

BENEFITS

- Reconstruct cost financed at a later date
- Multi-modal element incorporates locally preferred transit alternative

IMPACTS

- Unreliable pavement conditions until 2017
- Delayed construction increases overall project costs
- Transit funding may not be available by 2017, making the implementation date of this option indeterminable
- No highway capacity increase leads to more congestion, less revenue, higher user cost
- Minimal ROW required

ADDITIONAL TRANSIT COST

In order to make transit option operational, an additional **\$1,100 M** will be required, which is not included in the Other Costs. Median ROW transfer costs for transit options are also not included.

	Construction Years Funded Through Current CRF
	Construction Years Unfunded
	Non-Construction Years

6.5%	Highway Construction Escalation Ra	te (Above nom	inal rate)	4.4%	Discount Rate		2010
1707)	1870 N 20 20 7	A	В	С	D	E	A+B+C+D
Year	Description	Construction	Repairs	Other ‡	User Cost	Revenue ±	Total Cos
2010	Intermittent Pavement Repairs		\$17.60		\$17.57	(\$0.18)	\$35.17
2011	Resurface Kennedy - Elgin	\$68.86	\$12.00		\$17.89	(\$3.19)	\$98.75
2012	Accountage (Crimody Light	\$70.24	\$12.00		\$18.21	(\$3.07)	\$100.45
2013	Intermittent Pavement Repairs		\$11.80		\$18.54	(\$0.08)	\$30.34
2014	intermittent r avernent Kepairs		\$25.34		\$18.90	(\$0.08)	\$44.24
2015	Doguđena Flaja - Chami Vallau	\$89.59	\$6.38		\$19.23	(\$3.89)	\$115.20
2016	Resurface Elgin - Cherry Valley	\$91.39	\$8.37		\$19.59	(\$3.76)	\$119.35
2017		\$304.64		\$346.72	\$19.96	(\$2.80)	\$671.32
2018	Reconstruct Kennedy - Elgin	\$310.77		\$285.83	\$20.33	(\$2.72)	\$616.93
2019		\$317.02		\$346.41	\$20.72	(\$2.68)	\$684.15
2020	Reconstruct Elgin to IL-47	\$223.69			\$21.12	(\$3.23)	\$244.81
2021	D	\$240.27			\$21.52	(\$3.13)	\$261.79
2022	Reconstruct IL-47 to I-39	\$245.10			\$21.94	(\$3.02)	\$267.04
2023					\$22.37		\$22.37
2024		8			\$22.82		\$22.82
2025					\$23.27		\$23.27
2026					\$23.74		\$23.74
2027					\$24.22		\$24.22
	TOTAL CONSTRUCTION COST =	\$2,055	.07		##: ## ## ## ## ## ## ## ## ## ## ## ##	=	
		TOTAL OTHE	R COST =	\$978.95			
			TOTAL USE	ER COST =	\$371.94		
				TOTAL F	REVENUE =	(\$31.82)	
ote: A	All cost are stated in Millions of 2010 Dolla	irs			тот	AL COST =	\$3,405.96
‡	Indicates Costs Paid by Others				TOTAL N	ET COST =	\$3,437.79



Reconstruct & Widen Now + EBS Reserve ROW with HOT



DESCRIPTION

- Intermittent Pavement Repairs in 2010
- Reconstruction and widening from 2011 to 2013
- Adds Express Bus Service with stations (EBS) reserved ROW and High Occupancy Toll (HOT) Lanes 2011 to 2013

BENEFITS

- Lower highway construction costs
- Provides reliable pavement conditions now
- Addresses congestion and capacity needs now (both highway and transit)
- Higher revenue
- Allows reinvestment of funds currently dedicated to resurfacing

IMPACTS

- Requires immediate funding source(s)
- Implementation schedule is pending ROW acquisition
- ROW required at station areas

ADDITIONAL TRANSIT COST

In order to make transit option operational, an additional **\$525 M or \$1,100 M** will be required, which is not included in the Other Costs. Median ROW transfer costs for transit options are also not included.

6.5%	Highway Construction Escalation Rat	Discount Rate		2010			
		1000	-				
		А	В	С	D	Е	A+B+C+
Year	Description	Construction	Repairs	Other ‡	User Cost	Revenue ±	Total Co
2010	Intermittent Pavement Repairs		\$5.90		\$17.57	(\$0.18)	\$23.47
2011		\$290.73		\$122.00	\$17.89	(\$3.58)	\$430.62
2012	Widen & Reconstruct Kennedy - Elgin	\$465.16		\$273.00	\$18.21	(\$3.45)	\$756.37
2013		\$472.40		\$272.00	\$18.54	(\$3.29)	\$762.94
2014	Widen & Reconstruct Elgin to IL-47	\$198.50			\$7.95	\$6.33	\$206.48
2015	Widen & Reconstruct IL-47 to I-39	\$213.21			\$4.94	\$6.53	\$218.18
2016	Wideli & Recollstruct IE-47 to 1-03	\$217.50			\$5.03	\$6.35	\$222.53
2017					\$4.94	\$11.47	\$4.94
2018					\$5.04	\$11.26	\$5.04
2019					\$ 5.13	\$ 11.05	\$ 5.13
2020					\$5.23	\$10.85	\$5.23
2021					\$5.33	\$10.65	\$5.33
2022					\$5.44	\$10.46	\$5.4
2023					\$ 5.54	\$10.28	\$5.54
2024					\$5.65	\$10.10	\$5.66
2025					\$5.77	\$9.92	\$5.77
2026					\$5.88	\$9.75	\$5.88
2027					\$6.00	\$9.59	\$6.00
	TOTAL CONSTRUCTION COST =	\$1,863	.40		ne e		
		TOTAL OTHE	R COST =	\$667.00			
			TOTAL USE	ER COST =	\$150.08		
				TOTAL F	REVENUE =	\$124.10	
lote:	All cost are stated in Millions of 2010 I	Dollars			тот	AL COST =	\$2,680.4
‡	Indicates Costs Paid by Others				TOTAL N	ET COST =	\$2,556.38



Reconstruct West of STAR Line Now, East of IL-59 Later



DESCRIPTION

- Intermittent pavement repairs in 2010
- Reconstruct and widen (IL-59 to Elgin), resurface (IL-59 to Kennedy Expressway) and reconstruct only (Elgin to I-39) from 2011 to 2014
- Reconstruct and widen (IL-59 to Kennedy Expressway) from 2017 to 2019

BENEFITS

- Provides reliable pavement conditions over most of the corridor
- Allows reinvestment of funds currently dedicated to resurfacing
- More efficient asset allocation if coordinated with other projects currently being studied (STAR Line, O'Hare Expansion, Elgin-O'Hare Expressway and O'Hare Bypass)
- No ROW required

IMPACTS

- Could be waiting until after 2017 for STAR Line project funding
- Unreliable pavement conditions until 2017 east of IL-59
- Higher cost and lower revenue compared to Option 3
- Defers improvements in most congested sections

6.5%	Highway Construction Escalation Rate (A	Above nomina	l rate)	4.4%	Discou	int Rate	2010
Year	Description	A Construction	B Repairs	C Other ‡	D User Cost	E Revenue ±	A+B+C+D Total Cost
2010	Intermittent Pavement Repairs		\$17.60		\$17.57	(\$0.18)	\$35.17
2011	W+Rec IL-59 to Elgin, Resurf- IL-59 East	\$397.59		Ø i maria i ma	\$17.89	(\$3.58)	\$415.48
2012	Reconstruct Elgin to IL-47	\$190.44			\$18.21	(\$4.03)	\$208.65
2013	Reconstruct IL-47 to I-39	\$307.32			\$18.54	(\$3.42)	\$325.86
2014			\$19.00		\$15.12	\$0.93	\$34.12
2015	Intermittent Pavement Repairs		\$4.79		\$12.20	\$2.58	\$16.99
2016			\$6.28		\$12.38	\$2.47	\$18.66
2017		\$331.94			\$12.37	\$0.32	\$344.31
2018	Widen & Reconstruct Kennedy - IL-59	\$338.62			\$12.56	\$0.28	\$351.18
2019		\$345.43			\$12.74	\$0.30	\$358.17
2020					\$5.23	\$10.85	\$5.23
2021					\$5.33	\$10.65	\$ 5.33
2022					\$5.44	\$10.46	\$5.44
2023					\$5.54	\$10.28	\$ 5.54
2024					\$5.65	\$10.10	\$5.65
2025		ĺ			\$5.77	\$9.92	\$5.77
2026					\$5.88	\$9.75	\$5.88
2027					\$6.00	\$9.59	\$6.00
	TOTAL CONSTRUCTION COST =	\$1,95	9.02				
		TOTAL OTHE	R COST =				
		3	TOTAL USE	ER COST =	\$194.42		
				TOTAL	REVENUE =	\$77.27	
lote:	All cost are stated in Millions of 2010 Doll	ars			тот	AL COST =	\$2,153.44
‡	Indicates Costs Paid by Others				TOTAL N	ET COST =	\$2,076.16

9 Do Nothing



DESCRIPTION

- Continuous annual repairs and resurfacing until the system fails
- No added capacity or congestion relief
- Deteriorating levels of service and average speed

BENEFITS

• No added benefits

IMPACTS

- No new revenue
- Unreliable pavement conditions beyond 2027
- High annual repair costs after 2016 with 50% pavement resurfacing and a standby contractor for emergency repairs

6.5%	Highway Construction Escalation Rate	(Above nomin	al rate)	4.4%	Discou	nt Rate	2010
		Α	В	С	D	E	A+B+C+D
Year	Description	Construction	Repairs	Other ‡	User Cost	Revenue ±	Total Cost
2010	Intermittent Pavement Repairs		\$17.60		\$17.57	(\$0.18)	\$35.17
2011	Resurface Kennedy - Elgin	\$71.89	\$12.00		\$17.89	(\$3.19)	\$101.78
2012	resultace iterifically - Light	\$76.56	\$12.00		\$18.21	(\$3.07)	\$106.77
2013	Intermittent Pavement Repairs		\$11.80		\$18.54	(\$0.08)	\$30.34
2014	Intermittent Pavement Repairs		\$25.34		\$18.90	(\$0.08)	\$44.24
2015	D. A. The Observation	\$111.11	\$6.38		\$19.23	(\$3.89)	\$136.72
2016	Resurface Elgin - Cherry Valley	\$118.34	\$8.37		\$19.59	(\$3.76)	\$146.30
2017	Resurface 50% + Standby Contractor	\$126.46			\$19.96	(\$1.05)	\$146.42
2018	Resurface 50% + Standby Contractor	\$129.00			\$20.33	(\$2.72)	\$149.33
2019	Resurface 50% + Standby Contractor	\$131.59			\$20.72	(\$2.68)	\$152.31
2020	Resurface 50% + Standby Contractor	\$134.24			\$21.12	(\$3.23)	\$155.36
2021	Resurface 50% + Standby Contractor	\$136.94			\$21.52	(\$4.04)	\$158.46
2022	Resurface 50% + Standby Contractor	\$139.70			\$21.94	(\$3.90)	\$161.64
2023	Resurface 50% + Standby Contractor	\$142.51			\$22.37	(\$1.13)	\$164.88
2024	Resurface 50% + Standby Contractor	\$145.37			\$22.82	(\$2.13)	\$168.19
2025	Resurface 50% + Standby Contractor	\$148.30			\$23.27	(\$2.33)	\$171.57
2026	Resurface 50% + Standby Contractor	\$151.28			\$23.74	(\$2.57)	\$175.02
2027	Resurface 50% + Standby Contractor	\$154.32			\$24.22	(\$2.73)	\$178.54
	TOTAL COST =	\$2,011	.08				
		TOTA	L COST =				
			тот	AL COST =	\$371.94		
				TOTAL R	EVENUE =	(\$42.76)	
Note:	All cost are stated in Millions of 2010 D	ollars			тот	AL COST =	\$2,383.02
t	Indicates Costs Paid by Others				TOTAL N	ET COST =	\$2,425.78

Interchange Opportunities



Est. Cost (2009 \$)

\$35 M

\$35 M

Interchange Location

Irene Rd.

IL-23

Plum Grove Rd.

DUPA Elmhurst Rd.

Lee St.

In order to more efficiently incorporate development along the corridor, local communities have approached the Illinois Tollway about adding new or enhanced interchange connections with I-90 between I-39 and the Kennedy Expressway.

		Brier Hill Rd.	\$35 M
*Interchange estimated	l costs have not been included in nine options	IL-47	\$67 M
		IL-31	\$56 M
	MC HENRY BOONE	Beverly Rd.	\$67 M
		Barrington Rd.	\$35 M
		Roselle Rd.	\$35 M
		Plum Grove Rd.	\$67 M
		Meacham Rd.	\$42 M
		I-290/IL-53	\$766 M
		L IL-58	\$67 M
		Elmhurst Rd.	\$67 M
		Lee St.	\$67 M
	90	I-294	\$200 M
(Irene Rd.	DE KALB Brier Hill Rd. Barrington Rd IL-31 Beverly Rd.	Roselle Rd. Meacham Rd. I-290/IL-5	

Improving I-90—February 25, 2010 Page 18

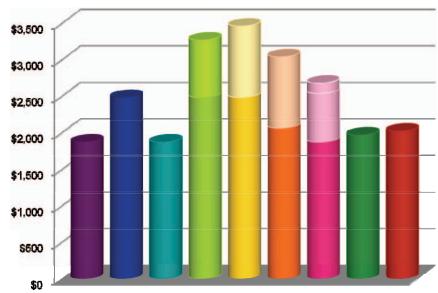
KANE

Comparing the Options

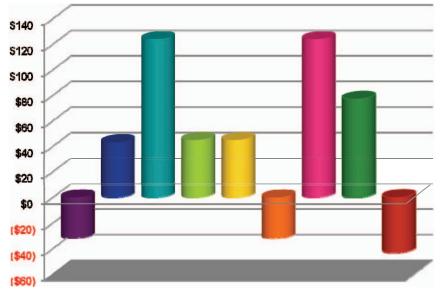


TOTAL COST WITHOUT USER COST (MILLION)

*Does not include additional cost for transit



TOTAL REVENUE (MILLION)



		Total Revenue ±	Total Cost w/o User Cost	
1	Reconstruct Later	(\$32) M	\$1,867 M	
2	Reconstruct & Widen Later	\$43 M	\$2,477 M	
3	Reconstruct & Widen Now	\$124 M	\$1,863 M	
4	Reconstruct & Widen Later + EBS Reserve ROW with HOT	\$45 M	\$2,477 M	
	Other Costs	_	\$786 M	
	Additional Funding by RTA	_	\$525 M	\$3,788 M
5	Reconstruct & Widen Later + STAR Line Reserve ROW	\$45 M	\$2,477 M	
	Other Costs	_	\$979 M	
	Additional Funding by Metra	_	\$1,100 M	\$4,556 M
6	Reconstruct Later + STAR Line Reserve ROW	(\$32) M	\$2,055 M	
	Other Costs	_	\$979 M	
	Additional Funding by Metra	_	\$1,100 M	\$4,134 M
7	Reconstruct & Widen Now + Reserve ROW for EBS with HOT or STAR Line	\$124 M	\$1,863 M	
	Other Costs	_	\$667 M or \$810	
	Additional Funding by Transit Agency	_	\$525 M or \$1,100 M	\$3,055 M or \$3,773
8	Reconstruct West of STAR Line Now, East of IL-59 Later	\$77 M	\$1,959 M	
9	Do Nothing	(\$43) M	\$2,011 M	

Improving I-90 — February 25, 2010 Page 19