



Freeway Decommissioning

ArDOT JOB NO. CA0602

I-30 (From I-530/I-440 to I-40) and
I-40 (From Highway 365/MacArthur Dr.
to Highway 67)

Pulaski County, Arkansas

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U.S. Department
of Transportation
**Federal Highway
Administration**



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Executive Summary

Arkansas Department of Transportation (ArDOT) is implementing a project in Little Rock, Arkansas known as 30 Crossing to improve a stretch of I-30 encompassing the Arkansas River Bridge. Many design alternatives have been evaluated. Members of the community have proposed an alternate they claim will solve the existing traffic issues while re-instilling and preserving the beauty and functionality of downtown Little Rock, AR. The public's proposed plan consists of converting I-30 (between I-630 and I-40) from an interstate freeway to a **six-lane at-grade boulevard** and re-designating I-440 as I-30 to serve as the mainline highway. This plan has been brought up in several local newspaper articles in 2016 and 2017.

This report reviews highway decommissioning projects in other cities and compares them to the 30 Crossing project in Little Rock, AR.

When evaluating national examples, there were common characteristics which appear to be essential for the decommissioned highway plan to be successful. These characteristics include:

- Low volumes along the route
- Freeway is no longer in use, but the infrastructure remains
- Lack of need for the route – no need for connectivity or capacity
- Alternative high-speed routes are available
- Short-distance route (approximately 1-mile)
- The local need and desire is for a route that provides easy-access with origin and destination both contained within the city's downtown area (or other contained area), as opposed to a means of travel into, out of, or passing through the city.

Table ES-1 depicts summary characteristics of the example projects and the 30 Crossing project. The table also summarizes the projects' reasoning for decommissioning the freeway.

**Table ES-1: Freeway Decommissioning Project
Characteristics Summary Matrix**

Freeway	City	ADT	Year	Project Length (mile)	Potential Reasons for Decommissioning				
					Low Demand	Alignment Relocation	Route Closed, Infrastructure remained	Future Development	Public Safety
US 99W/Harbor Drive	Portland, OR	24,000	1970's	3.0	X				
Park East Freeway	Milwaukee, WI	54,000	1999	1.0	X			X	
I-490 Inner loop East	Rochester, NY	17,550	2016	0.67	X			X	
State Route 59	Akron, OH	17,760	2014	1.05	X				
I-375	Detroit, MI	80,000	2016	1.0				X	X
I-40 Crosstown Expressway	Oklahoma City, OK	125,000	2005	2.3		X		X	
West Shoreway	Cleveland, OH	40,948	2016	2.0	X			X	
Route 99/Alaskan Way Viaduct	Seattle, WA	110,000	2011	2.0		X			X
Route 34/Oak Street Connector	New Haven, CT	73,600	2014	0.8	X		X	X	
West Side Highway	New York, NY	140,000	1957	5.7			X		X
I-30: 30 Crossing	Little Rock, AR	125,000/170,000	2017/2041	7.3				X	X

Decommissioned highways can be an effective way to improve local access and mobility within a downtown city, add green space to a city, and ultimately rejuvenate a downtown setting. Decommissioned highways are effective and successful in certain circumstances, including low volumes, low through vehicles, lack of need for the route, other high-speed routes are available, and/or have taken place of the route, and/or the facility is a short-distance route (approximately 1 mile).

Most of the decommissioning examples fundamentally differ from the 30 Crossing project. A majority of the national examples where highway decommissioning is being considered and/or has been successful are situations where the freeway being removed and repurposed meets the characteristics of success noted above, and when the route is intended to serve vehicles remaining within the city network, as opposed to vehicles traveling through the downtown area.

Finally, in addition to the research of national highway decommissioning projects, The Center for New Urbanism (CNU) CNU has published five reports titled "Freeways Without Futures". *Freeways Without Futures* 2017 edition brings together research into a comprehensive look at the current state of urban highway removal. In CNU's 2017 report, CNU identified 10 highways for possible conversion from freeway to boulevard.

The projects identified in the CNU *Freeways Without Futures* report were found to exemplify the same characteristics as the projects identified in the Arkansas Times, Arkansas Democrat-Gazette and public meeting comment forms including:

- Low volumes along the route
- Alternative high-speed routes are available
- Short distance route (approximately 1-mile)

In summary, the 30 Crossing project is vastly different than the decommissioned highway projects identified by any of the local newspaper articles or the *Freeways Without Futures* report. The 30 Crossing project does not represent a viable candidate project to removing the freeway and rebuilding a boulevard.

1.0 Introduction

1.1 Background

Approved by Arkansas voters, Arkansas Department of Transportation (ArDOT) is implementing an accelerated State Highway Construction and Improvement Program named the Connecting Arkansas Program (CAP). A major component of the CAP is to implement a project to improve a portion of Interstate 30 (I-30) from Interstate 530 (I-530) and Interstate 440 (I-440) to Interstate 40 (I-40), including the Arkansas River Bridge, and a portion of I-40 from Highway 365 (MacArthur Drive) to Highway 67. This project is commonly known as CA0602: I-530 - Highway 67 (Widening & Reconstruction) (I-30 & I-40), hereafter referred to as 30 Crossing Project. Figure 1 illustrates the proposed 7.3-mile project limits.

1.2 Existing Facility

I-30 is one of the critical links of the central Arkansas freeway system. It connects communities within the central Arkansas region and serves local, regional and national travelers with varied destinations and trip purposes.

The I-30 corridor generally consists of three main lanes in each direction with parallel one-way discontinuous frontage roads on each side of the interstate. In the northern portion of the project limits, the I-40 corridor consists of three to four main lanes in each direction with parallel one-way frontage roads on each side of the interstate between the I-30/I-40 interchange and North Hills Boulevard (Blvd.). Within the 7.3-mile corridor, four system interchanges are located:

- I-30 with I-530 and I-440
- I-30 with I-630
- I-30 with I-40



Figure 1: 30 Crossing Project Location Map

- I-40 with Highways 67/167

The purpose of the 30 Crossing project is to address the transportation needs identified in the *Planning and Environmental Linkages (PEL) Study Purpose and Need Report*. The PEL Study was approved in July 2015. Through extensive coordination with resource agencies, public officials and the public, the following Purpose and Need was developed.

Table 1: Purpose and Need

Needs (Problems)	Purpose (Solutions)
Traffic Congestion	To improve mobility on I-30 and I-40 by providing comprehensive solutions that improve travel speed and travel time to downtown North Little Rock and Little Rock and accommodate the expected increase in traffic demand. I-30 provides essential access to other major statewide transportation corridors, serves local and regional travelers and connects residential, commercial and employment centers.
Roadway Safety	To improve travel safety within and across the I-30 corridor by eliminating and/or improving inadequate design features.
Structural and Functional Roadway Deficiencies	To improve I-30 roadway conditions and functional ratings.
Navigational Safety	To improve navigational safety on the Arkansas River Bridge by eliminating and/or improving inadequate design features.
Structural and Functional Bridge Deficiencies	To improve Arkansas River Bridge conditions and functional ratings.

In addition to the Purpose and Need, the following goals were established for the project:

- Improve opportunity for east-west connectivity;
- Enhance mobility;
- Improve local vehicle access to and from downtown Little Rock/North Little Rock;
- Connect bicycle/pedestrian friendly facilities across I-30/I-40;
- Accommodate existing transit and future transit;
- Improve system reliability;
- Minimize roadway disruptions during construction;
- Minimize river navigation disruptions during/after construction;
- Follow through on commitment to voters to improve I-30 as part of the CAP;
- Maximize cost efficiency;
- Optimize opportunities for economic development;
- Avoid and/or minimize impacts to the human and natural environment, including historic and archeological resources;
- Sustain public support for the I-30 Corridor improvements; and
- Improve safety.

1.3 Proposed Alternatives

1.3.1 No-Action Alternative

The No-Action Alternative represents the case in which the proposed project is not constructed, but could include future projects identified through the long-range planning process for maintaining a state of good repair as funding becomes available. The No-Action includes all other projects outside of the study corridor that are identified in the Central Arkansas Regional Transportation Study (CARTS) metropolitan planning organization's Long-Range Transportation Plan.

1.3.2 Action Alternatives

Two different main lane configurations are under consideration. Both would include the replacement of the Arkansas River Bridge.

- Eight-Lane General Purpose (GP) Action Alternative would provide four main lanes in each direction with no Collector Distributor (C/D) lanes
- Six-Lane with C/D Lanes Action Alternative would reconstruct the existing six-lane (three in each direction) roadway while adding two decision lanes on each side that ultimately feed into a C/D system located at the Arkansas River Bridge

The current Highway 10 (Cantrell Road) interchange provides direct access to the downtown business district of Little Rock. Its location coupled with the Arkansas River Bridge and the I-30 interchange with I-630 creates a unique level of complexity. To balance various project goals, two interchange concepts are being considered for this interchange:

- An elevated Single Point Urban Interchange (SPUI) constructed in the same location as the current interchange
- A Split Diamond Interchange (SDI) constructed south of the existing interchange at 4th Street and 9th Street

Combining the two main lane configurations with the two Highway 10 (Cantrell Road) interchange concepts results in the four Action Alternatives as follows:

- Action Alternative 1A: 8-Lane GP with SPUI Action Alternative
- Action Alternative 1B: 8-Lane GP with SDI Action Alternative
- Action Alternative 2A: 6-Lane with C/D Lanes with SPUI Action Alternative
- Action Alternative 2B: 6-Lane with C/D Lanes with SDI Action Alternative

For detailed information on the Action Alternatives, refer to the 30 Crossing Environmental Assessment (EA) for the proposed project.

The alternatives that were carried forward from the Planning and Environmental Linkages (PEL) Study for further consideration are shown below. The traffic results of these alternatives are

provided in Appendix B to this document.

- Existing
- No-Action
- 8-Lane General Purpose (8-Lane GP Action Alternatives)
 - Action Alternative 1A: 8-Lane GP with Single Point Urban Interchange (SPUI)
 - Action Alternative 1B: 8-Lane GP with Split Diamond Interchange (SDI)¹
- 6-Lane with Collector/Distributor Lanes (6-Lane with C/D Lanes Action Alternatives)
 - Action Alternative 2A: 6-Lane with C/D Lanes with SPUI
 - Action Alternative 2B: 6-Lane with C/D Lanes with SDI¹

¹ The split diamond option was not mentioned in the I-30 PEL but was added to the analysis at the beginning of the NEPA study.

1.4 Boulevard Concept

There has been some public opposition for the proposed 30 Crossing plan. Members of the community have proposed one alternate plan they claim will solve the existing traffic issues while preserving the beauty and functionality of downtown Little Rock, AR. The proposed plan consists of converting I-30 (between I-630 and I-40) from a freeway into a **six-lane boulevard** carrying low to medium speeds, and re-designating I-440 as I-30 which would route mainline traffic through to the loop system around Little Rock. The plan would also add a new bridge over the Arkansas River to connect Pike Avenue to Chester Street, and dedicated low speed lanes on either side of the boulevard for bus and bicycle routes. The plan provides more greenery to downtown accumulating a net 30-acres of developable mixed-use land according to published articles in the Arkansas Times and the Arkansas Democrat-Gazette.

This idea of transforming a freeway into a lower speed boulevard has been brought up multiple times in the Arkansas Times and the Arkansas Democrat-Gazette in 2016 and 2017. The articles assert that removing freeways and converting them into boulevards is becoming a common idea being explored and implemented in many cities across the country. The articles point out that this action is a way to connect disjointed communities that have been impacted by urban highway developments, and to rejuvenate and preserve the aesthetic and economic viability of urban downtown districts, and often produce more green space.

This method of converting freeway to boulevard has become known as “highway decommissioning.” A decommissioned highway is one that has been either removed from service, permanently shut down, or has had its authorization as a national, provincial or state highway removed. By decommissioning highways, cities have a unique opportunity to transform former interstate routes into surface boulevards, and reclaim former interstate right-of-way and to reconnect the original street grid. But not all freeways are good candidates for freeway decommissioning.

The following are proposed reasons why some community members oppose the 30 Crossing plan to maintain I-30 as a freeway, as described in the Arkansas Times and the Arkansas Democrat-Gazette articles referenced.

- A boulevard would still provide the necessary capacity for commuters, and would support the urban amenities for the region that most other cities crave. (bicycle lanes, pedestrian paths, etc.)
- I-30 slices through the heart of town dividing and blighting neighborhoods.
- Expanded freeways worsen urban property value while urban boulevards increase urban property value.
- A boulevard would be less expensive, would better handle all types and modes of traffic, is safer, and will increase economic development.
- 30 Crossing wouldn't relieve congestion because of induced demand, thus the high price tag isn't justified. Instead, 30 Crossing will cause negative impacts to downtown's economic growth and cause further harm to properties along the swath of concrete.
- Transforming I-30 into a boulevard will lead to more open space, excellent connectivity within downtown, new parks and exciting development opportunities.
- A quality boulevard would increase the amount of available commercial and entertainment/park property in Little Rock.
- A boulevard would aid in the revival of east little rock neighborhoods cut off by the freeway, and would add developable land by narrowing the freeway and eliminating the frontage roads.

One primary question that needs to be answered is would the Boulevard Concept achieve the project's Purpose and Need and study goals identified (Section 1.3)? The following sections do not provide a comprehensive evaluation of the proposed boulevard concept related to the purpose and need and study goals. This document simply provides examples of other projects around the country either considering freeway decommissioning or have already completed a freeway removal and compares them to the I-30 project. Many of the project examples described below were brought up in the Arkansas Times and the Arkansas Democrat-Gazette as examples that ArDOT should follow in Little Rock.

2.0 Freeway Decommissioning Examples

Throughout the U.S, a growing number of cities have embarked on the idea of converting interstate highways and freeways servicing downtown districts into surface boulevards or eliminating the facility all together. Common benefits of decommissioning a highway include reconnecting downtown neighborhoods and streets, increased community, reclaimed land for parks and other development opportunities, restoring downtown charm, increase in downtown property values, and an overall improvement to local economy.

Table 2 is a list of cities that have been featured in articles in local newspapers and subsequently identified by the public opposition group pushing for a Boulevard Concept. The following sections provide a summary about each project.

Table 2: Example Decommissioning Projects

No.	City, State	Facility
1	Portland, Oregon	US 99W/Harbor Drive
2	Milwaukee, WI	Park East Freeway
3	Rochester, NY	I-490 Inner Loop East
4	Akron, OH	State Route 59
5	Detroit, MI	I-375
6	Oklahoma City, OK	I-40 Crosstown Expressway
7	Cleveland, OH	West Shoreway
8	Seattle, WA	Route 99/Alaskan Way Viaduct
9	New Haven, CT	Route 34
10	New York, NY	West Side Highway

2.1 Portland, OR - US 99W/Harbor Drive

In downtown Portland, Oregon, US 99W existed between 1930 and 1972, running alongside the west side of the Willamette River. A 3-mile stretch of US 99W was shut down after Interstate 5 was constructed immediately along the east side of the river. Subsequently, Interstate 405 was also constructed parallel to US 99W. Due to the construction of both I-5 and I-405, traffic volumes on US 99W decreased to 24,000 vehicles per day, eliminating the need for the freeway to perform as a high-speed, high-capacity route. Although US 99W was closed off to traffic for a time, its infrastructure remained. The City converted this unused route into a boulevard and park development in 1978. This project area is now referred to as the Tom McCall Waterfront Park.

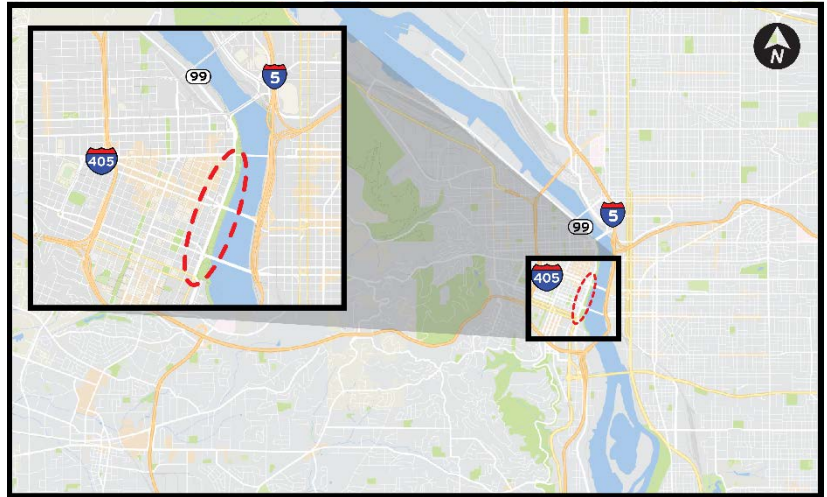


Figure 2: US 99W, Portland Area

2.2 Milwaukee, WI – Park East Freeway

The Park East Freeway in Milwaukee was a remnant of an abandoned 1960's plan to encircle downtown Milwaukee with freeways. The original plan was to create a system beginning from I-43, extending east to the lakefront near Juneau Park, and then extending south to connect into I-794. This would have provided a direct route from the highway systems (I-43 and I-794) to and throughout Milwaukee's downtown district and to the lakefront. The project came to a halt during the mid-1970s in response to local opposition, and only a one-mile, elevated segment of the freeway was completed, located between I-43 and North Milwaukee Street. With a majority of the project left unbuilt, the traffic volumes only reached 54,000 vehicles a day.

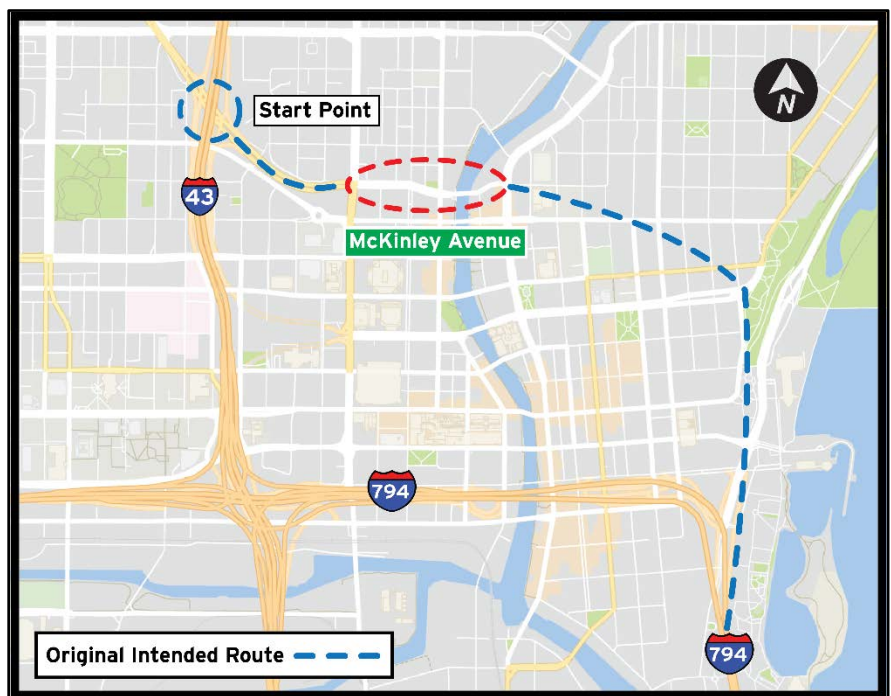


Figure 3: Park East Freeway Project Area

The completed one-mile spur was underutilized and quickly had damaging effects on the neighborhoods. Aside from the displeasing aesthetics and disconnected access, it devalued property and inhibited development on nearby parcels, ultimately causing surface parking to become the leading use of land through the corridor.¹

In the 1990s the East Pointe redevelopment project was completed which reconnected the street grid in downtown and reinvigorated the riverfront area. This sparked discussion to rectify the Park East Freeway. In 2003, Park East Freeway was transformed into the six-lane boulevard known as McKinley Avenue. The creation of McKinley Avenue generated 24 acres of developable downtown property and increased property values in the Park East Tax Increment District by 45% in the years 2001-2006.²

2.3 Rochester, NY – I-490 Inner Loop

“The Inner Loop East Transformation Project is converting a sunken section of expressway to the east of Downtown to an at-grade ‘complete street,’ that will include bicycle and walking paths. Construction for the \$23.6 million project began in November 2014 and was completed in December 2017.”³



Figure 4: Inner Loop – Rochester, NY

The eastern portion of the loop divided the city, cut off residents from neighboring facilities, and made travel across the expressway difficult. This east portion was isolated from the main flow of traffic into the city (as depicted in Figure 4), and thus was underutilized and subject to low traffic volumes, approximately 17,550 vehicles per day. Ultimately the expressway was doing more harm than good and mainly acting as a barrier.

The project transformed a 2/3-mile stretch of the Inner Loop between I-490 (near Monroe Avenue) and Main Street. The expected benefits include increasing traffic safety, supporting healthy lifestyles, improved livability, reconnecting neighborhoods with downtown, promoting development, and better utilizing the infrastructure and space. The development has created 6 acres of development land.⁴

¹ <http://city.milwaukee.gov/Projects/Park-East-Redevelopment/Park-East-History.htm#.Wm11xkxFyzk>

² <https://www.cnu.org/highways-boulevards/model-cities/milwaukee>

³ <http://www.cityofrochester.gov/InnerLoopEast/>

⁴ http://www.rochesterdowntown.com/wp_rddc/investment-projects/inner-loop-east-fill-in/

2.4 Akron, OH – Innerbelt Freeway, Route 59

Akron's Innerbelt freeway was designed in 1970 to bring economic revitalization to the struggling downtown by connecting Akron's downtown core to the interstate highway and expressway system. To help reduce the traffic on other expressways, the city's Urban Planning and Renewal office conceived a six-lane, highway across the middle of downtown Akron

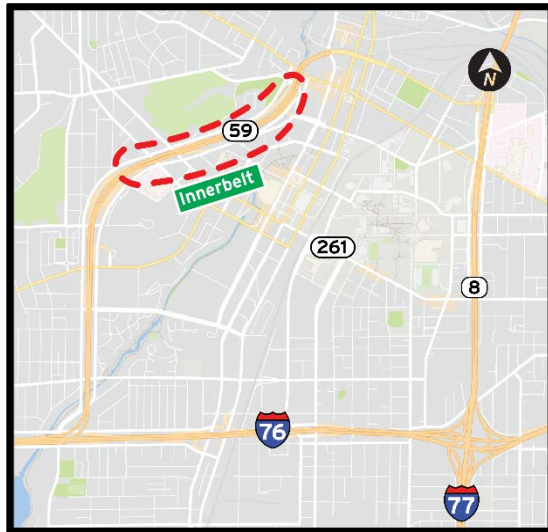


Figure 5: Innerbelt Freeway - Akron, Ohio

connecting U.S. Route 224 in Barberton to downtown Akron and then continuing past Ohio Route 8 into Cuyahoga Falls.

In three years (from 1970-1973), just $\frac{3}{4}$ of a mile was constructed (out of the 5-mile total project length). Not until 1977, four years later, did construction begin on the next $\frac{3}{4}$ mile stretch. Severe budgeting problems caused the project to stall, and meanwhile public opposition and resentment exponentially grew. The freeway (the portion that was constructed) cut neighborhoods in half resulting in segregated areas. “Blacks lived on the north side of Interstate 77, where the first portion of the Innerbelt cut through. Whites lived on the south side.”⁵

Ultimately, approximately 4 miles of the project was constructed, but it never connected into Route 8 Expressway or reached US Route 224. It carried only 10% of the cars predicted when it was built. “It is extremely doubtful that the new freeway, even if completed, will do much to attract retail businesses or shoppers downtown.” The Innerbelt Freeway was never completed. With a downtown starving for new development, the city has devised a new urban renewal project: demolish the Innerbelt Freeway and slowly re-stitch the neighborhood that ‘urban renewal’ left behind.

In 2014, the last mile of the Akron Innerbelt Freeway, a six-lane portion spanning from the Dart Avenue exit to Martin Luther King Jr. Blvd., was shut down so transformation could begin. By 2018, a \$12.5 million conversion will turn this final mile into two surface-level, one-way streets, lined with trees and grassy areas, and with room for new buildings in between.

This transformation brings hope to the 22 neighborhoods sitting on either side of the freeway. The need and desire in this location is for a low-speed, community- and pedestrian-friendly arterial, not a high-capacity, high-speed facility dividing the people and their town.⁶

⁵ http://www.cleveland.com/akron/index.ssf/2014/12/akron_innerbelt_planned_as_a_s.html

⁶ http://www.cleveland.com/akron/index.ssf/2014/12/akron_innerbelt_planned_as_a_s.html

2.5 Detroit, MI – I-375

Trying to undo the damage done a half-century ago, by ramming high-speed freeways through urban neighborhoods, Michigan Department of Transportation (MDOT) plans to transform the deteriorating highway of I-375 into a surface street with landscaped medians, bicycle lanes and other amenities allowing for more pedestrian friendly urban environments and designed to attract development. Built in 1964 at a cost of \$50 million, I-375 runs for slightly more than a mile along Detroit's east side and is at the end of its useful life. A 2014 study established the need for a change, emphasizing connectivity, replacement of outdated infrastructure and alignment with evolving development trends and traffic patterns.⁷ Kelby Wallace, a senior project manager with the MDOT noted that the proposed surface street idea is feasible and provides different types of benefits that the freeway doesn't; however, traffic doesn't operate quite as well, but it still operates in an acceptable manner based on accepted traffic standards. The boulevard idea would make about 12 acres between Gratiot and Jefferson avenues available for development.⁸

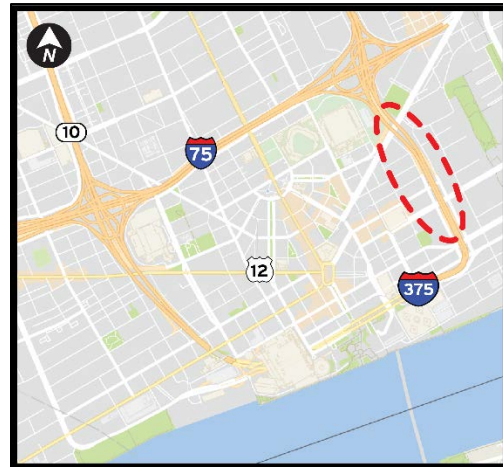


Figure 6: I-375 Project Area

2.6 Oklahoma City, OK – I-40 Crosstown Expressway

Completed in 1966, the original three-lane I-40 was designed to carry up to 76,000 vehicles per day. However, by 2005, this same highway was routinely carrying as many as 125,000 vehicles per day, signaling the need for change. In 2005, a new I-40 was constructed in a new location, just south of the original location, now known as the I-40 Crosstown, leaving the old I-40 infrastructure in place but out of use. The city of Oklahoma City has developed plans to transform what remains of the old I-40 alignment into a multi-lane boulevard (known as the Oklahoma City Boulevard) aiming to improve access to Oklahoma City's downtown central business district. The

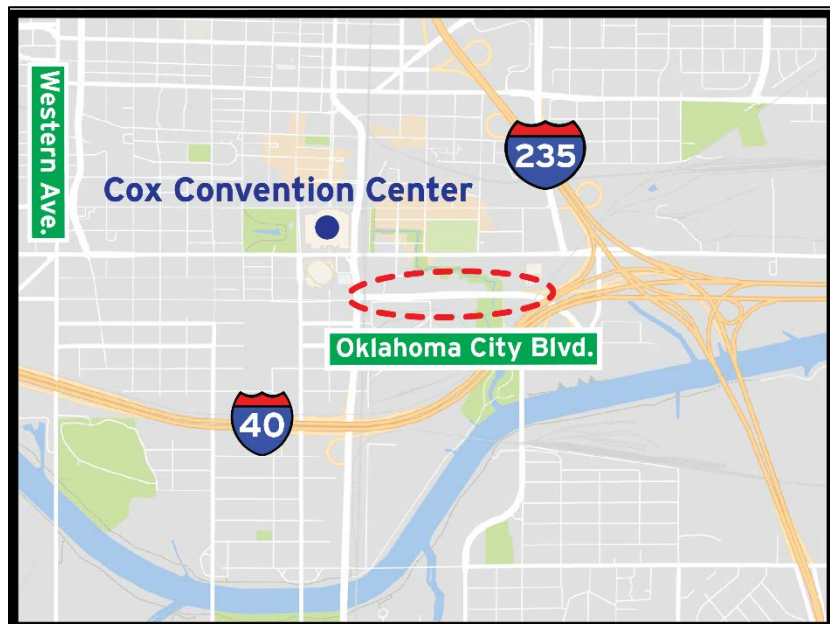


Figure 7: Oklahoma City Project Area

⁷ http://www.mlive.com/news/detroit/index.ssf/2017/12/plans_to_dismantle_i-375_trans.html

⁸ <http://www.crainsdetroit.com/article/20130429/NEWS/304289951/among-ideas-to-revamp-i-375-a-boulevard>

completed Oklahoma City Boulevard will serve as a four-lane, low-speed city street running through the planned convention center and central park area. It will include on-street parking as well as features to make it pedestrian and bicycle friendly. The Boulevard will connect into I-235 on its east end, and I-40 on its west end, providing easy access into the city's interstate system.⁹ This national example utilizes existing infrastructure that was no longer in use, and transforms it into useful space.

2.7 Cleveland, OH – West Shoreway

In 2002, the City of Cleveland implemented a change to the City's Master plan to create more accessibility to Cleveland's waterfront district. Per the 2004 Waterfront District Plan, city planners identified the revamp of West Shoreway, now referred to as Lakefront West, as the first transportation project to be addressed by the Ohio Department of Transportation and the City of Cleveland as a part of this new initiative.



Figure 8: West Shoreway Project

The plan is to reduce the West Shoreway, formerly Route 2 (shown in Figure 8 above on the north-east side), from a limited-access highway to a tree-lined boulevard. This short, 2-mile freeway runs from Clifton Boulevard (shown in Figure 8 on the west edge of the map) to downtown, and provides easy access to downtown chiefly by Lakewood residents.¹⁰ The two-mile stretch services approximately 41,000 vehicles per day, majority of which are the locals.

The new plan intends to allow easier access to the lake shore from the emerging Detroit-

⁹ https://www.ok.gov/odot/What's_New/I-40Crosstown.html

¹⁰ <http://www.rebuildcle.com/2014/01/west-shoreway-boulevardization-project.html>

Shoreway neighborhood (shown in Figure 8 in the bottom center, south of the project area). The current travel patterns have proven that the route does not require high-capacity nor does it need to accommodate high speeds. Instead, the users would like a neighborhood-friendly and aesthetically-pleasing route to access their beautiful lake shore and downtown.

The new boulevard will maintain three lanes of traffic in each direction, and will reduce speed limits from 50 mph to 35 mph. The speed limit reduction is expected to add just over a minute to total travel times along the boulevard. During off-peak hours, the new facility will provide on-street parking for future housing and mixed-use developments, and will service a renovated and expanded Edgewater Park. The Shoreway project was completed in 2017, except for minor operations such as landscaping occurring in 2018.

2.8 Seattle, WA – Route 99/Alaskan Way Viaduct

Constructed in the 1950s, the Alaskan Way viaduct has become a vital north-south route through downtown Seattle offering drivers an alternative to busy downtown streets. Routinely carrying 110,000 users per day, the viaduct has been subject to decades of daily wear and tear that has taken a toll on the structure. After the 2001 Nisqually Earthquake, the Washington State Department of Transportation (WSDOT) was required to make repairs and strengthen the viaduct, but the structure remained susceptible to future damage or collapse if another earthquake event were to occur. Replacing the viaduct became a priority to WSDOT and critical for the overall public safety. As a part of the Alaskan Way Viaduct Replacement Program a new SR 99 2-mile-long tunnel is being constructed beneath downtown Seattle to replace the original viaduct. This is scheduled to be open to traffic in 2019. The former Alaskan Way viaduct will be transformed into a surface street along the waterfront that will connect SR 99 to downtown. Expected completion of this surface street conversion is 2023.

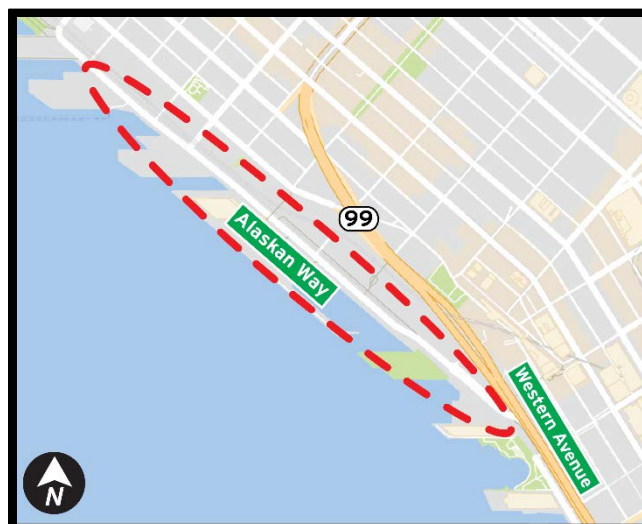


Figure 9: Alaskan Way Viaduct Project

By repurposing existing infrastructure that was no longer relevant or in-use and subsequently creating surface boulevards, the city hopes to improve access to downtown, improve livability downtown by providing new parks and paths, and provide easy access to Seattle's waterfront, Elliott Bay.

2.9 New Haven, CT –Oak Street Connector/Route 34

In 1959, construction began on the Oak Street Connector which was intended to be a limited

access expressway on Route 34 extending 10 miles from the City of New Haven to the suburbs of Derby. Only 0.8 miles of the route was ever constructed, leaving Route 34 as “the expressway to nowhere”.¹¹ The project had a dual purpose: urban renewal and traffic flow. The first goal was to completely clear this portion of New Haven's downtown. The expressway eliminated an area that was run-down and vacant, an area that had historically been a poor area where leather workers congregated along West Creek. The second goal of the freeway was to bring cars into the city and facilitate the east–west flow of traffic between New Haven and its growing western suburbs. The goals of the expressway are no longer current or valid. As such, there was no longer a need for a high-speed, high-capacity expressway connection between New Haven and Derby.¹²

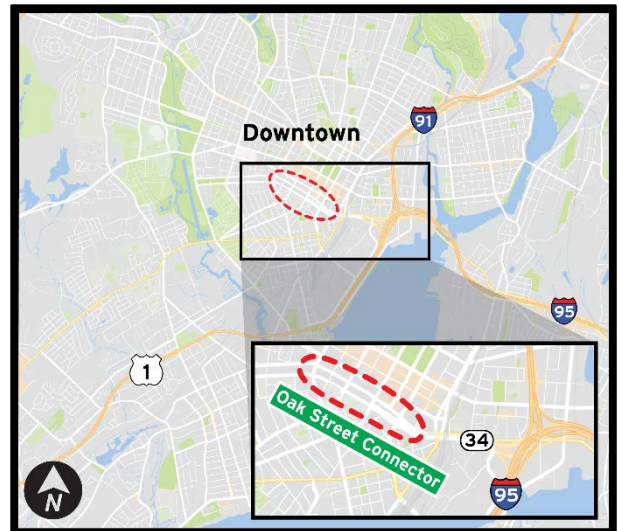


Figure 10: Oak Street Connector Project

Today, Route 34 carries 73,400 vehicles per day and serves as a 1.1-mile connector between the junction of I-95 and I-91 and downtown. As a part of the City's Route 34 Downtown Crossing Project, the City of New Haven plans to transform the Oak Street Connection into a system of urban boulevards to reestablish the urban street grid by reconnecting city streets. The project facilitates new mixed-use and mixed-income development opportunities on approximately 10 acres of developable land acquired from the highway right-of-way, promoting regional economic, environmental, and social benefits for the city.

2.10 New York, NY – West Side Highway

Running along the Hudson River in Manhattan, the West Side Highway became the first elevated highway of its kind, with construction beginning in the 1920s. By 1957, Westside Highway was routinely carrying 140,000 vehicles per day, exceeding intended capacity, which led to city discussions on how to improve the elevated road. However, due to a lack of routine maintenance, West Side Highway was permanently closed after a portion of the highway collapsed in 1973. In 1989 the structure was completely removed. In 2001 the City completed a beautification project that improved the existing West Street, located under the former West Side Highway, by adding 19-foot wide landscaped medians, bicycle paths and a



Figure 11: West Side Highway

¹¹ <http://www.courant.com/opinion/hc-op-place-condon-new-haven-0801-20130731-column.html>

¹² https://en.wikipedia.org/wiki/Oak_Street_Connector

landscaped park along the river, as well as urban design elements that emphasize the continuity of this street and park such as decorative streetlights and granite paving details.

2.11 Summary of Examples

Ten projects from around the country were evaluated as these projects have undergone a transformation of a freeway and were identified by local Little Rock proponents of a Boulevard Concept for 30 Crossing. When evaluating national examples of freeways being removed or replaced, there were common characteristics essential for the decommissioned highway plans to be successful. These characteristics included:

- Low volumes along the route
- Freeway is no longer in use, but the infrastructure remains
- Lack of need for the route – no need for connectivity or capacity
- Alternative high-speed routes are available
- Short distance route (approximately 1-mile)
- The local need and desire is for a route that provides easy-access with origin and destination both contained within the city's downtown area (or other contained area), as opposed to a means of travel into, out of, or passing through the city.

Table 3 depicts summary characteristics of the compared projects and the 30 Crossing project. The table also summarizes the projects reasoning for decommissioning the freeway and juxtaposes it against the characteristics of I-30.

**Table 3: Freeway Decommissioning
Project Characteristics Summary Matrix**

Freeway	City	ADT	Year	Project Length (mile)	Potential Reasons for Decommissioning				
					Low Demand	Alignment Relocation	Route Closed, Infrastructure remained	Future Development	Public Safety
US 99W/Harbor Drive	Portland, OR	24,000	1970's	3.0	X				
Park East Freeway	Milwaukee, WI	54,000	1999	1.0	X			X	
I-490 Inner loop East	Rochester, NY	17,550	2016	0.67	X			X	
State Route 59	Akron, OH	17,760	2014	1.05	X				
I-375	Detroit, MI	80,000	2016	1.0				X	X
I-40 Crosstown Expressway	Oklahoma City, OK	125,000	2005	2.3		X		X	
West Shoreway	Cleveland, OH	40,948	2016	2.0	X			X	
Route 99/Alaskan Way Viaduct	Seattle, WA	110,000	2011	2.0		X			X
Route 34/Oak Street Connector	New Haven, CT	73,600	2014	0.8	X		X	X	
West Side Highway	New York, NY	140,000	1957	5.7			X		X
I-30: 30 Crossing	Little Rock, AR	125,000/170,000	2017/2041	7.3				X	X

Based on the literature review and table summary, most of the projects evaluated decommissioned the freeway because the route was either experiencing low traffic volumes, development had changed over the years such that the freeway was no longer needed, the city wanted to reconnect the street grid or provide better access to downtown and waterfront districts, and an alternative freeway network was available.

The 30 Crossing project is very different than the 10 projects that were reviewed. The 30 Crossing projects' current traffic volumes are much higher than the project examples in most cases. Future traffic volumes are predicted to increase substantially, not decrease as seen in many of the reviewed projects. Table 3 also shows that the 30 Crossing projects limits are much longer than the other freeways that were converted. Table 3 shows that the 7.3 miles of project are much longer than the average 1.0-mile projects length in the table.

3.0 Freeway's Without Futures

More and more communities across North America are facing a pivotal moment in the history of our transportation infrastructure - what to do with aging infrastructure. This topic is becoming a widely-discussed issue amongst the industry. With cities, citizens, and transportation officials all looking for alternatives to costly highway repair and expansion, highways built in the 1950s and 1960s offer communities unique opportunities.

The Center for New Urbanism (CNU) is just one entity that has continued to explore and report on the idea of converting freeways to boulevards. Since 2008, CNU has published five reports titled "Freeways Without Futures".

Freeways Without Futures 2017 edition brings together research into a comprehensive look at the current state of urban highway removal. In CNU's 2017 report, CNU identified 10 highways for possible conversion from freeway to boulevard. Table 4 summarizes the 10 projects included in CNU's 2017 report, and further categorizes these projects into the same groups (potential reasons for highway decommissioning) applied to the other freeway decommissioning examples included in this report.

Table 4: Freeways Without Futures Summary Table







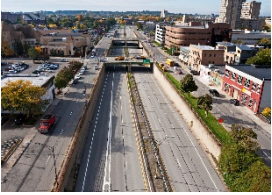



Project	Route Distance (miles)	Existing ADT Traffic Volumes	Low Demand	Alignment Relocation	Route Closed	Future Development	Public Safety	Project Image	Project Summary
Scajaquada Expressway, Buffalo, New York	3.6	65,000					X		<ul style="list-style-type: none"> Existing expressway bisects through Delaware Park Several crashes; in 2015 crash resulted in fatality Redesign to boulevard will lower speeds, reduce noise, reconnect the park, improve aesthetics and provide pedestrian friendly accommodations
I-345, Dallas, Texas	2					X	X		<ul style="list-style-type: none"> Existing facility at end of design life Freeway cuts off downtown from adjacent historic neighborhoods Resulted in vacant areas and parking lots, low property values Boulevard would lead to 245 acres to be developed and new jobs Boulevard would re-stitch the downtown grid Existing traffic is partially regional traffic that could use alternate alignments around town. Local traffic can use the reconnected downtown grid which has excess capacity Neighborhoods are growing rapidly, needs are changing
I-70, Denver, Colorado				X		X			<ul style="list-style-type: none"> Existing facility at end of design life Freeway disconnected and disadvantaged minority neighborhoods CDOT proposed plan to bury the freeway below grade, add a deck park atop the freeway to reconnect neighborhoods and provide greenspace, while adding 4-lanes to the freeway, expanding tolling and widening shoulders. Local group "Unite North Metro Denver" has proposed alternate option to reroute I-70 to the north and transform existing I-70 into a boulevard. Boulevard would improve quality of life New Freeway design would destroy 80 residences, 17 businesses, and more
I-375, Detroit, Michigan	1	15,000 to 80,000	X			X			<ul style="list-style-type: none"> Freeway destroyed historic African-American neighborhoods which once were homes to the black entrepreneurial class and thriving Black-owned businesses Area is experiencing shrinking population, lower demand Boulevard would produce 12 acres of redevelopment space Design analysis indicates that improving with a new freeway would not alleviate existing operational issues Boulevard design analysis shows it would solve operational issues Rapid development occurring within the riverfront district and downtown area
I-980, Oakland, California		73,000	X			X			<ul style="list-style-type: none"> Existing facility is underutilized Boulevard would reconnect street grid, reopen 21 new city blocks = 17 acres of high-value land Boulevard would produce new housing options, including affordable housing Existing Freeway is 18-lanes wide, way over capacity Existing Freeway disadvantaged low-income communities, in return advantaging affluent white neighborhoods' commute time Boulevard deign focuses on equality, integration, and investment in the community, improve quality of life and reduce displacement.
Route 710, Pasadena, California	0.5					X			<ul style="list-style-type: none"> Existing facility demolished hundreds of houses to connect freeways. Existing freeway interrupts street grid, and separates neighborhoods from schools, popular businesses, and community assets Boulevard would regain 50 developable acres, some used for mixed use housing

Table 4: Freeways Without Futures Summary Table

Project	Route Distance (miles)	Existing ADT Traffic Volumes	Low Demand	Alignment Relocation	Route Closed	Future Development	Public Safety	Project Image	Project Summary
Inner Loop, Rochester, New York	1	6,000	X			X			<ul style="list-style-type: none"> Boulevard project is essentially complete. Downtown economy is thriving as a result of the Boulevard completion. Population is expected to rise 400% by 2020. Boulevard produced mix-use development space, walking and biking facilities, multi-modal uses. Includes on-street parking, sidewalks, and green space. As part of project, streets are being reconnected and converted to 2-way streets, improving downtown accessibility Produced more than 6 acres of developable land. In the previous freeway conditions, the route was a barrier, land adjacent was vacant / unused, route was unused, the area was always 'evacuated'
I-280 Spur, San Francisco, California	1.2					X			<ul style="list-style-type: none"> Area is currently facing housing and affordability crisis Changing to boulevard would open opportunities for market-rate and affordable development in the urban core. A boulevard would reconnect severed neighborhoods, undesirable land would be converted into new housing and commercial developments, including diverse housing types and mixed-use buildings to help solve the housing crisis. Boulevard would produce 30 acres of land Could be a catalyst for future projects, including transit and high-speed rail projects
I-81, Syracuse, New York	1.4			X		X			<ul style="list-style-type: none"> Existing freeway displaced 1,300 residents and destroyed historic African-American community, interrupted connectivity and flow of city streets, led to abandoned space; relocation of displaced African-Americans caused 'white flight' which rippled throughout the city Proposed boulevard option would reroute mainline traffic to I-481 Boulevard option would produce 7 acres of land and preserve 24 buildings, versus a freeway redesign would take land.
Route 29, Trenton, New Jersey			X			X	X		<ul style="list-style-type: none"> Existing freeway is underutilized Existing freeway (when constructed) replaced a canal adjacent to downtown and destroyed city park. Boulevard would accommodate environmental improvements and allow for innovative storm water management. Existing freeway sits on a 100-year floodplain. Boulevard plan would produce a vibrant, connected new waterfront neighborhood. Boulevard would reclaim 18 acres of land and improve access of the city grid. The boulevard alignment would be shifted away from the river to better maintain scenic paths directly along the riverfront; alignment would be rerouted through surface parking lots which is preferred to lower construction costs and help shift the alignment off environmental risk/ floodplain areas. Boulevard plan includes a connected park system, a route to the River Line Light Rail, and a trail network.

Source: "Freeways Without Futures." *Congress for The New Urbanism*, <https://www.cnu.org/highways-boulevards/freeways-without-futures/2017>

CNU's *Freeways without Futures* 2017 report accurately points out that when freeways were built in the 1950s and 1960s they were built through communities without regard to the natural and social environment. The projects highlighted demonstrate freeways that were built on top of neighborhoods, breaking up the original grid system and the quality of life of those neighborhoods. This is a focal point of the document and primary reason for today's situation and issue. However, that is why the National Environmental Policy Act (NEPA) was developed in 1969. No longer could an interstate be built through existing neighborhoods causing such massive destruction and displacing so many.

Much of the interstate system is reaching the end of (or past) its intended design life and needs to be rebuilt. Tearing down interstates and building boulevards sounds ideologically correct, but the larger ramifications have yet to be researched. The CNU report does describe how the local communities that were impacted benefit from these projects, but does not present any information on regional impacts.

CNU's *Freeways without Futures* evaluated several projects. As shown above in Table 4, many of the CNU-featured projects have the same characteristics as the projects previously evaluated in this report which were featured in the Arkansas Democrat-Gazette. Furthermore, the CNU projects also exemplify these additional characteristics that were apparent in the Democrat-Gazette-featured projects:

- Low volumes along the route
- Alternative high-speed routes are available
- Short distance route (approximately 1-mile)

In summary, the 30 Crossing project is vastly different than the decommissioned highway projects identified in the *Freeways Without Futures* report. Also, the *Freeways Without Futures* report is missing important research on any impacts to the regional transportation system that could result from decommissioning highway projects.

4.0 Conclusion

Decommissioned highways can be an effective way to improve local access and mobility within a downtown city, add green space to a city, and ultimately rejuvenate a downtown.

Decommissioned highways are effective in certain circumstances. Decommissioned freeways were found to be successful in cases of low traffic volumes, low through vehicles, lack of need for the route, other high-speed routes have taken place of the route, or the facility is a short distance route (approximately 1-mile).

These 'characteristics of success' are not present in the 30 Crossing project area. The examples and projects described herein fundamentally differ from the 30 Crossing scenario in Little Rock, Arkansas.

In addition to the list of circumstances noted above, another condition that directly correlates to a successful highway decommissioning, as identified in many of these examples, is when the freeway being removed and repurposed is only serving vehicles remaining within the city

network, and is not serving traffic traveling longer distances into and out of the city. I-30 does not fall into this category or meet this condition. I-30 in Little Rock is the main route connecting vehicles to other major freeways and highways in the region including I-630, I-440 and I-30 to I-40 and Highway 67. I-30's traffic is much higher than the examples that were reviewed at 125,000 vehicles per day (2017) and expected to increase to 170,000 vehicles per day in 2041. Converting I-30 to a medium speed boulevard significantly impacts travel time, delays, congestion, and safety of the I-30 facility and the connecting roadways. Users attempting to travel distances and proceed onto another highway/freeway would be disadvantaged if they were forced to travel through a lower-speed, pedestrian-friendly, urban route and would face numerous roadway and roadside obstacles which would not be present on a typical freeway.

In the national examples, the decommissioned highways were generally a very short distance, 1-2 miles. The decommissioned portion is internal to the city and is surrounded by, or near, an alternate high-speed highway network that can facilitate traffic that wants to bypass the downtown. In these national examples, the act of decommissioning the highway does not leave the city with a lack of high-speed / alternate routes. In contrast, in Little Rock, if I-30 were decommissioned, the city would experience a lack of decent access to both downtown Little Rock and North Little Rock.

In summary, the 30 Crossing project is very different than the 10 national examples that have been identified in the Arkansas Democrat-Gazette as examples that ArDOT should follow, and vastly different from the projects identified by CNU. A Boulevard Concept would not address the Purpose and Need of the Project, or the additional goals that were developed by the study team, community stakeholders and public.

The 30 Crossing project does include some of the amenities that a Boulevard concept has such as improved connectivity of disjointed communities, enhancements to rejuvenate and preserve the aesthetic and economic viability of downtown Little Rock and North Little Rock, and the opportunity to increase downtown green space.

The 30 Crossing Build Alternatives have all the components to successfully address all ArDOT's transportation needs, fulfill ArDOT's project goals, provide easy and safe access into the city, provide convenient routes to navigate within the city, allow for high speed through-movements to access the nearby highway networks, and rejuvenate the downtown by providing a new iconic Arkansas River Bridge. The 30 Crossing plan minimizes obstacles on the road, making the road and the city overall a safer place to live, work, and play.

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