CITY COUNCIL WORK SESSION BRIEFING

INT ALAMEDA AND JEFFERSON, POCATELLO

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Prepared for:

Pocatello
A MUNICIPAL CORPORATION OF IDAHO

City of Pocatello

Prepared by:

MILE 6 SIX MILE ENGINEERING, PA

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INTRODUCTION

This report is intended to provide the Pocatello City Council a summary of the proposed intersection improvements prior to the October 9, 2014, work session. It consists of:

- A brief summary of the need for improvements at the intersection
- An overview of the proposed intersection improvement alternatives developed to address the project need
- A summary of the evaluation of intersection alternatives and the recommended alternative
- A summary of agency coordination on the performance of thru-turn intersections (Appendix B)

At the City Council's direction, an additional intersection improvement – Alternative 14A, Conventional Intersection with Free Right Turn – was developed with conventional left turns, a free right-turn movement for northbound Jefferson Avenue traffic, and a U-turn bulb-out at the Ridley's approach (unsignalized) to enable U-turns on Pocatello Creek Road. It has raised medians on Hiline Road and Jefferson Avenue needed to improve safety but no U-turn bulb-outs.

Without the U-turn bulb-outs on Hiline Road and Jefferson Avenue, access to local streets and businesses is limited. Drivers who want to turn left from the approaches and local streets (East Alameda Road and Deon Drive) would need to make U-turns at driveways or in private parking lots or would find alternative routes or destinations. To improve access and safety for these motorists, a second alternative was developed, Alternative 14B, Conventional Intersection with Free Right Turn and U-Turn Bulb-Outs. It is identical to Alternative 14A with the addition of unsignalized U-turn bulb-outs on Hiline Road and Jefferson Avenue.

The third alternative developed since the last Council work session is Alternative 12B, Partial Thru-Turn with Free Right Turn. It is identical to Alternative 12A, Partial Thru-Turn Intersection, with the addition a free right-turn movement for northbound Jefferson Avenue traffic.

PROJECT NEED

Improvements at the intersection of Alameda Road and Jefferson Avenue have been planned and discussed since the 1990's, with several plans and projects suggested over the last twenty years. The current project was developed as part of the 2006 Long Range Transportation Plan. **Bannock Transportation Planning Organization selected this intersection as its highest priority project** based on the operational deficiencies, safety, and connectivity to other portions of the community.

The purpose of this project is to improve the safety and mobility for vehicles, pedestrians, and bicyclists. The two primary reasons improvements are needed at the intersection are:

- **Traffic operations:** The intersection currently operates at level of service (LOS) E during the PM peak hour, with demand exceeding the intersection capacity. By the 2039 design year, traffic is expected to increase up to 35 percent on Pocatello Creek Road. If no improvements are made by then, the intersection is expected to operate at LOS F. LOS A is best, and LOS F is the worst grade representing congested conditions with excessive vehicle delay.

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- **Safety:** The crash rate at the intersection from 2009 to 2013 (the most recent reporting period) exceeds the expected crash rate at similar intersections in Idaho.

Traffic Operations

Current Intersection Traffic Operations

Table 1 summarizes the traffic analysis results at the intersection for the No-Build Alternative. The No Build Alternative (sometimes called the Do Nothing Alternative) is the current intersection lane configuration and traffic signal phasing. It is analyzed to answer the question, "What happens if we do nothing?".

With 2013 PM peak hour traffic counts, the intersection operates at LOS E, with traffic demand exceeding the intersection capacity. The average delay experienced by vehicles traveling through the intersection is 65 seconds. The average delay for vehicles making a westbound left turn (west on Pocatello Creek Road to south on Jefferson Avenue) or a southbound left turn (south on Hiline Road to east on Pocatello Creek Road) is 125 seconds. Because the reported delay is an average, it is not unreasonable to conclude that some travelers may experience three or four minutes of delay during the most congested periods of the peak hour.

With the forecasted 2039 PM peak hour traffic, the intersection is expected to operate at LOS F. The traffic demand is expected to continue to exceed the intersection capacity, with an expected average delay of 103 seconds. The average delay for the vehicles making the westbound and southbound left-turn movement is expected to reach 180 seconds.

Table 1. Traffic analysis results for PM peak hour

Year	Evaluation Criteria	No Build Alternative
2013	LOS	E
	Average Vehicle Delay	65 sec
	Longest Average Vehicle Movement Delay	125 sec WB Left Turn SB Left Turn
2039	LOS	F
	Average Vehicle Delay	103 sec
	Longest Average Vehicle Movement Delay	180 sec WB Left Turn SB Left Turn

Figure 1. Crash locations (2009-2013)

Safety

Existing Crashes

From 2009 to 2013, which is the most recent five-year reporting period, 135 crashes were reported

within one-quarter mile of the intersection. The crash locations are illustrated Figure 1.

Table 2 presents a summary of the crash history on the roadway segments within one-quarter mile of the intersection and the crashes defined as intersection-related in the crash report. The Base Crash Rate is the rate at which crashes are expected to occur on similar roadways or intersections having similar traffic volumes in Idaho. The Existing Crash Rate is the number of reported crashes per million vehicle-miles traveled (ACC/MVM) for the roadway segment and crashes per million vehicle entering the intersection (ACC/MV).

Table 2. Crash data summary (2009-2013)

Roadway Segment or Intersection	Total Crashes	Total Injury Crashes	Total Fatal Crashes	Base Crash Rate (ACC/MVM(MV))	Existing Crash Rate (ACC/MVM(MV))
Alameda-Pocatello Creek segment	38	10	0	3.47	**1.73**
Jefferson-Hiline segment	97	29	0	3.31	**4.40**
Alameda and Jefferson intersection	52	18	0	0.43	**0.72**

The Existing Crash Rates for the Jefferson-Hiline roadway segment, including the intersection, and the intersection-related crashes exceed the Base Crash Rate, meaning they experience more crashes than expected for similar roadway segments and intersections with similar traffic volumes in Idaho.

In reviewing the five-year reported crash history from 2008 to 2012 and from 2009 to 2013, the number of reported crashes has increased by 9, illustrating a potential trend of reduced safety as traffic volumes increase from year to year.

The Jefferson Avenue-Hiline Road roadway segment exceeds the base crash rate with more than double the number of crashes of the Alameda Road-Pocatello Creek Road segment. The crash types on this segment are illustrated in Figure 2. The majority of the crash types that have occurred can be reduced by implementing access management.

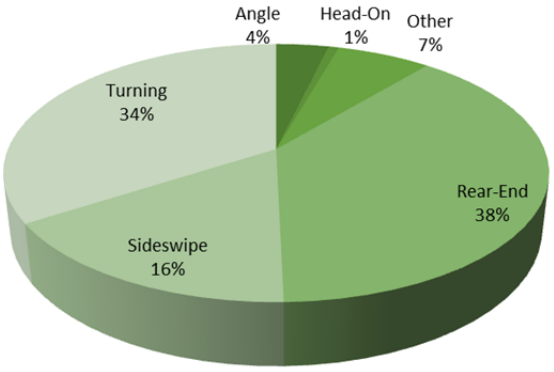


Figure 2. Percentage of crashes per crash type from 2009 to 2013

ACCESS MANAGEMENT

A proven approach to reducing crashes and improving safety is access management. One of the key access management measures is managing left-turns because studies have shown that approximately 75 percent of all access-related collisions involve left-turning vehicles, as shown in Figure 3 from the *Access Management Manual*.

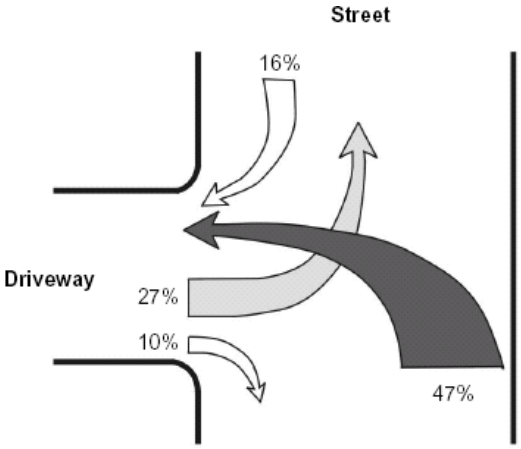


Figure 3. Percentage of driveway crashes per movement (Figure 1-6 from the *Access Management Manual*)

Several national publications provide statistics and guidance regarding the safety of prohibiting left turns with raised medians. NCHRP 420, *Impacts of Access Management Techniques*, notes:

- Case studies on several arterials throughout the U.S. show replacing two-way left-turn lanes with raised medians can reduce crashes from **15 percent to 57 percent**.
- Eliminating direct left turns from driveways and replacing them with indirect U-turn maneuvers results in a **20 percent reduction** in crashes.

Proposed Access Changes

Reducing crashes in the intersection area is best accomplished by managing access. Because of the poor crash history, this project proposes installing raised medians on portions of Jefferson Avenue and Hiline Road to prohibit left-turn access into and out of driveways and East Alameda Road. Raised medians are also proposed on Pocatello Creek Road and Alameda Road to augment the existing medians. All of the proposed intersection alternatives have these raised medians to improve intersection safety.

The resulting access for the business driveways, East Alameda Road and Deon Drive are limited to right-in/right-out as illustrated in Figure 4. While improving safety, the access limitations will hinder the ease of access for some motorists. Some of the proposed intersection alternatives address the access issue by adding U-turn opportunities as described below.

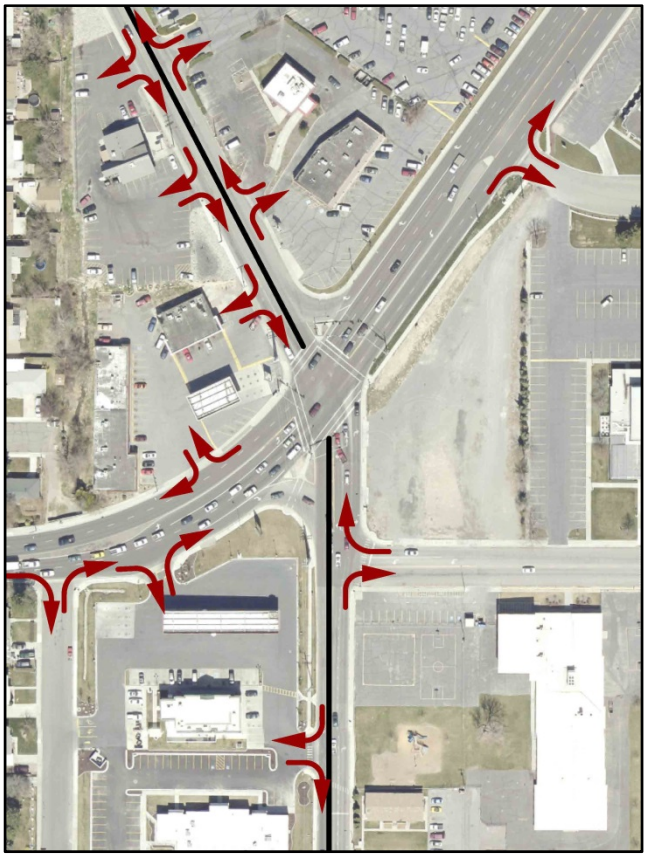


Figure 4. Proposed access limitations at driveways and East Alameda Road to improve safety

INTERSECTION IMPROVEMENT ALTERNATIVES

The intersection improvement alternatives are briefly described below.

No-Build Alternative

The No-Build Alternative provides no improvements to the intersection. It is not considered feasible for this project because it does not address the traffic operations or safety needs of the intersection.

Alternative 10 – Preferred from Concept Report

Alternative 10, developed by another consulting firm, was the preferred alternative from the concept design phase of the project completed in 2010. It closes access of East Alameda Road to Jefferson Avenue by constructing a cul-de-sac and re-routing traffic on a new road through the church parking lot and constructing a signalized intersection at the Ridley's approach on Pocatello Creek Road.

There are potential environmental issues with routing a new roadway through the church property because it is potentially an historic property. Also, intersection access spacing on state highways is now governed by Idaho Code. A traffic signal at the Ridley's approach does not meet the new spacing requirements; however, a traffic signal would be allowed if it meets certain requirements as discussed in the description for Alternative 11.

A LOS threshold of D is required for the project improvements, and Alternative 10 does not meet the minimum LOS threshold of D with design year (2039) traffic. If the improvements do not meet the minimum LOS, the FHWA may not participate in the project funding if there are other viable alternatives that meet the LOS requirement. As a result, **Alternative 10 is not viable and was removed from the alternative evaluation**.

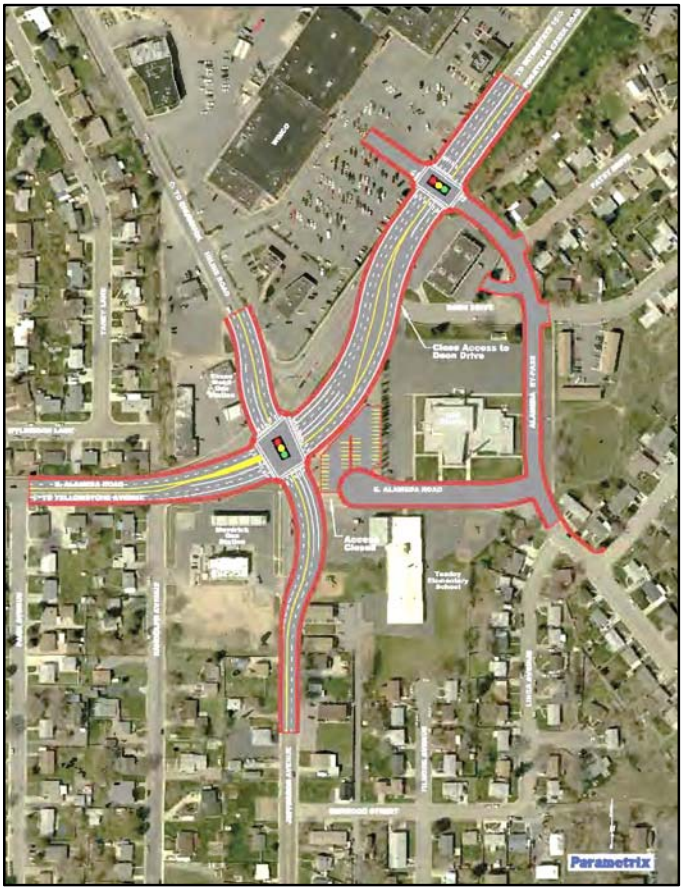


Figure 5. Alternative 10 – Preferred alternative from the concept phase of the project developed by Parametrix – see Appendix A for larger display

Alternative 11 – Thru-Turn Intersection

Alternative 11 removes all left turns at the intersection and replaces them with indirect left turns accomplished with thru-turns. The thru-turn movement requires left-turning traffic to travel through the intersection to a signalized U-turn bulb-out intersection where they make a U-turn and proceed back to the main intersection where they then make a right turn.

This alternative constructs raised medians on all four roadways between the thru-turn intersections. This limits traffic entering and exiting driveway approaches and local streets – East Alameda Road and Deon Drive – to right-in/right-out. Drivers who want to turn left from the approaches and local streets can utilize the signalized U-turn opportunities, which eliminate the need for motorists to make less safe U-turns at driveways or in private parking lots.

Figure 6. Alternative 11 – Thru-turn Intersection – see Appendix A for larger display

ITD has indicated that the proposed traffic signals at the U-turn bulb-outs at the Ridley's approach on Pocatello Creek Road and at Park Avenue on Alameda Road would be allowed because they function as part of the major intersection traffic control. The signalized U-turns replace the left-turn movements at the major intersection, Alameda Road and Jefferson Avenue, which significantly improves its traffic operations. The signalized U-turn bulb-out on Jefferson Avenue provides a signalized pedestrian crossing of Jefferson Avenue.

Appendix B contains a summary of agencies contacted to learn the performance of their thru-turn intersections. All six agencies contacted indicated that the thru-turn intersections achieved the goals of improving traffic operations and reducing crashes; however, five of the six agencies reported public dissatisfaction with the intersections. The intersections varied from single to dual U-turn lane configurations with protected signal phasing for the U-turns. All intersections discussed with the agencies have significantly more traffic volume than currently occurs on Hiline Road and Jefferson Avenue. The one agency that reported positive public feedback was the City of Tucson, Arizona. That agency operates the thru-turns with protected/permissive U-turn signal phasing. This allows motorists to make U-turn after yielding to opposing traffic. This signal operation can significantly reduce delay for the turning motorists, especially during off-peak hours. As a result, protected-permissive left-turn signal phasing is proposed for all of the signalized U-turn intersections on this project.

Alternative 12A – Partial Thru-Turn Intersection

Alternative 12A utilizes conventional left-turns for the I-15 business route traffic on Pocatello Creek and Alameda Roads, with thru-turns for Hiline Road and Jefferson Avenue traffic. An additional thru-turn intersection is proposed at the Ridley's approach to provide U-turn opportunities for large trucks because the Hiline thru-turn is designed only for passenger cars to minimize property impacts. The signalized thru-turn at Ridley's would also provide U-turn access for Deon Drive traffic.

This alternative includes raised medians on Hiline Road, Jefferson Avenue and Pocatello Creek Road between the thru-turn intersections and on Alameda Road west of Randolph Avenue. The medians limit access to right-in/right-out between the thru-turn intersections, which includes limiting access for East Alameda Road and Deon Drive traffic – see Figure 14 on page 14. Drivers who want to turn left from the access-limited approaches and local streets can utilize the signalized U-turn opportunities, which eliminate the need for motorists to make less safe U-turns at driveways or in private parking lots.

Figure 7. Alternative 12A – Partial thru-turn Intersection – see Appendix A for larger display

Additionally, the signalized U-turn bulb-out on Jefferson Avenue provides a signalized pedestrian crossing of Jefferson Avenue, improving pedestrian access in the project area.

Alternative 12B – Partial Thru-Turn Intersection with Free Right Turn

Alternative 12B modifies Alternative 12A by adding a free right-turn movement for northbound Jefferson Avenue traffic.

Free right-turn movements have lanes that are separated from the major intersection by an island and are not controlled by the intersection traffic control. For this project the proposed free right-turns have an acceleration lane downstream of the intersection of sufficient length to allow drivers to reach the posted speed limit and change lanes in heavy traffic. For all of the intersection alternatives with a free right-turn movement, the acceleration lane extends to the right-turn lane at the I-15 interchange ramp, creating a third through lane on Pocatello Creek Road from Jefferson to the interchange. The proposed pedestrian crossing of the free right-turn lane at the island is controlled by a rectangular rapid flashing beacon (RRFB).

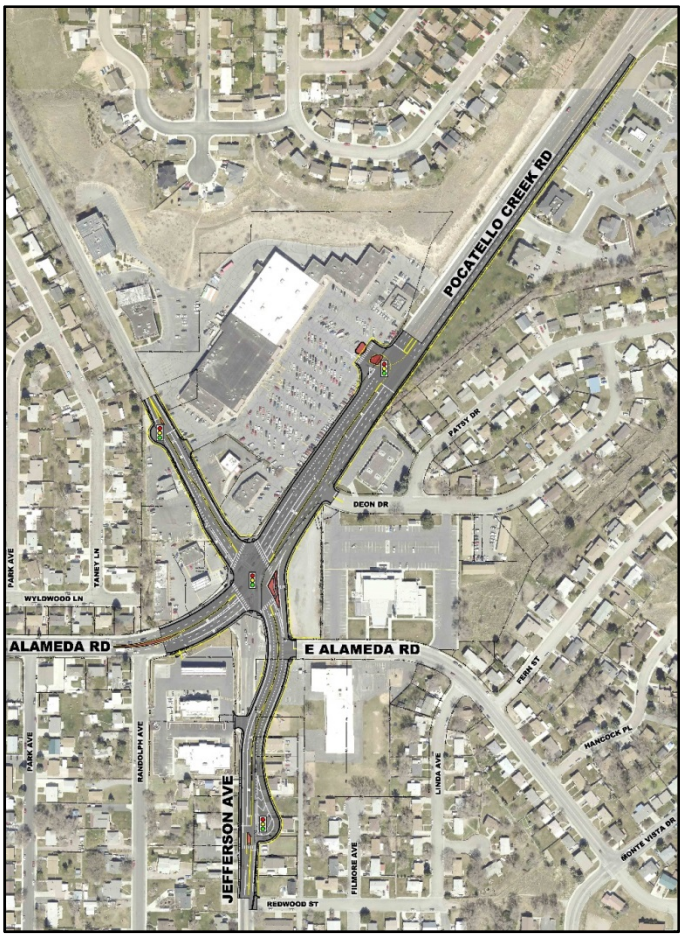


Figure 8. Alternative 12B – Partial thru-turn intersection with free northbound right-turn movement – see Appendix A for larger display

A 2005 study by the Texas Transportation Institute found that free right-turn movements are less safe than right-turn movements at a conventional signal-controlled intersection with a dedicated right-turn lane or a shared through and right-turn lane. Even though it meets design standards, **the free right-turn movement is not recommended** due to potential merging issues and due to their poor safety history in other locations in Idaho. For example, in Ada County, intersections with free right-turns are typically the highest crash locations. Recent projects have removed the free right-turns at several high traffic volume intersections including: Eagle Road and Fairview Avenue, Eagle Road and Chinden Boulevard, and State Street and Glenwood Street.

Alternative 13 – Double Crossover Intersection

For traffic on Pocatello Creek and Alameda Roads, Alternative 13 is similar to the recently constructed diverging diamond interchange on Yellowstone Avenue at I-86. It has two signalized intersections that cross through traffic to the opposite side of the road to improve operations for left-turn movements.

For traffic on Hiline Road and Jefferson Avenue, Alternative 13 utilizes thru-turns similar to Alternatives 11, 12A and 12B.

A double crossover intersection has not yet been constructed in the U.S. A 2005 paper by the Federal Highway Administration expressed safety concerns with this intersection type. For these reasons, **Alternative 13 is not recommended** for this project.

Figure 9. Alternative 13 – Double crossover intersection – see Appendix A for larger display

Alternative 14A – Conventional Intersection with Free Right Turn

Alternative 14A utilizes conventional left-turns for all four roadway approaches, with a free right-turn for the northbound Jefferson Avenue traffic, and bulb-out at the Ridley's approach to enable U-turns on Pocatello Creek Road.

ITD has indicated that a traffic signal at the U-turn bulb-out would not be allowed because it does not meet their intersection spacing requirements and does not function as part of the major intersection traffic control.

This alternative includes raised medians on Hiline Road and Jefferson Avenue, extending beyond the limits of the left-turn bays, on Alameda Road west of Randolph Avenue and Pocatello Creek Road to the Ridley's approach. The medians limit access to right-in/right-out for traffic entering and exiting the business driveways, East Alameda Road and Deon Drive – see Figure 15 on page 15. Drivers who want to turn left from the access-limited approaches and local streets would likely make U-turns at driveways or in private parking lots or would find alternative routes or destinations.

Alternative 14A does not provide access to Deon Drive for traffic traveling west on Pocatello Creek Road. Westbound left-turn access would conflict with the left-turn storage needed at the main intersection and U-turns at the intersection are not feasible due to the free right-turn movement for Jefferson Avenue traffic.

Figure 10. Alternative 14A – Conventional intersection with free northbound right-turn movement – see Appendix A for larger display

The receiving lane for the free right-turn extends to the I-15 interchange as discussed in the Alternative 12B description.

This receiving lanes for the westbound left turn extends south on Jefferson Avenue to Cedar Street to improve the dual westbound left-turn lane and southbound through lane utilization at the Alameda Road and Jefferson Avenue intersection. The receiving lane length is needed for the intersection to achieve the threshold LOS D for the design year traffic.

Alternative 14B – Conventional Intersection with Free Right Turn and U-Turn Bulb-Outs

Alternative 14B modifies Alternative 14A by adding U-turn bulb-outs on Hiline Road and Jefferson Avenue.

The U-turn bulb-outs will not be signalized but will improve the access and safety for motorists by providing an alternate to making U-turns at driveways or in private parking lots – see Figure 16 on page 16.

Figure 11. Alternative 14B – Conventional intersection with free northbound right-turn movement and U-turn bulb-outs to improve local access – see Appendix A for larger display

EVALUATION OF INTERSECTION ALTERNATIVES

The intersection alternatives were evaluated for how well they meet the project purpose and need. Table 3 on page 20 summarizes the evaluation results. A brief description of the evaluation criteria follows.

Traffic Operations

The traffic operations analysis was conducted using macroscopic analysis methods (Synchro 8) to determine the LOS of the main intersection. Microscopic analysis methods (VISSIM) were utilized to analyze the roadway network in the vicinity of the Alameda Road and Jefferson Avenue intersection so that impacts from downstream thru-turn intersections could be accounted for in the analysis comparison. Figure 12 illustrates a summary of the traffic operations evaluation criterion for the roadway network: the analysis results for the forecasted design year (2039) PM peak hour traffic. Alternative 11 has the lowest average stopped delay and second lowest average delay, which includes the delay for vehicles traveling through the alternative's four signal thru-turn intersections.

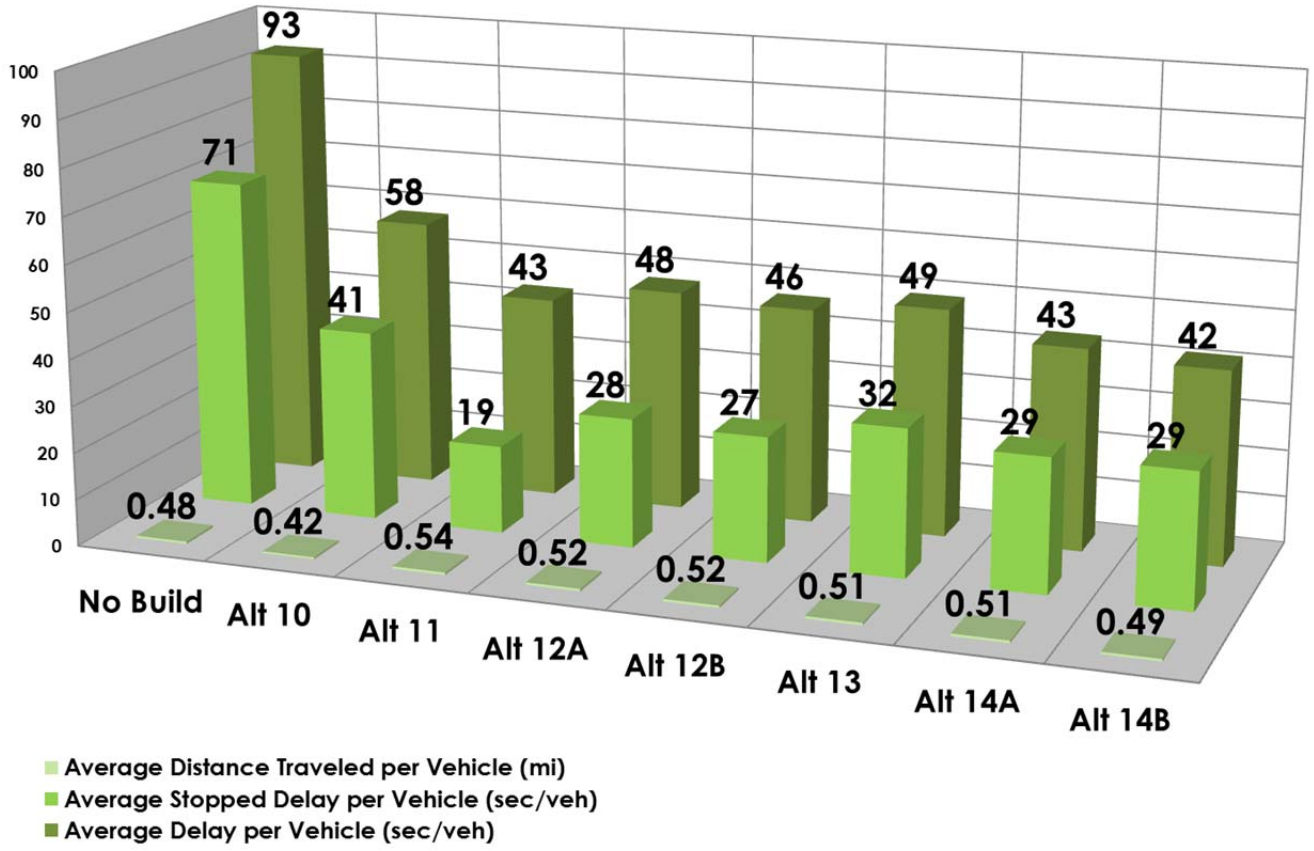


Figure 12. Summary of traffic analysis results of forecasted year 2039 PM peak hour traffic

Safety

The safety evaluation criteria consist of the number of potential vehicle conflicts at the main intersection, the potential vehicle conflicts during the forecasted PM peak hour and the presence of a free right-turn movement due to its reduced safety compared to conventional right-turn movements.

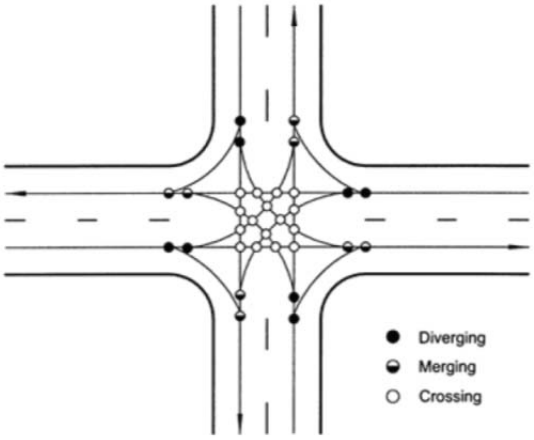


Figure 13. Potential vehicle conflicts (diverging, merging and crossing) at a conventional intersection (32 total)

The potential vehicle conflicts are based on the crossing, merging and diverging conflicts illustrated in Figure 13 for a conventional intersection configuration. The conflicts vary with the vehicle movements so intersections with thru-turns have fewer conflicts at the main intersection. The potential vehicle conflicts occurring during the forecasted design year PM peak hour were calculated using the Surrogate Safety Assessment Model (SSAM) developed by the Federal Highway Administration. It utilizes VISSIM output to calculate potential conflicts for the micro-simulation vehicles, incorporating speed and trajectory to identify potential impacts.

Access for Local Residents and Businesses

Access to driveways and local streets – East Alameda Road and Deon Drive - for Alternatives 12A, 12B, 14A and 14B are shown on the following Figures 14 through 16. The access for Alternatives 11 and 13 are not shown because those alternatives were not preferred by the technical team during the alternative development phase of the project.

Figure 14 shows access for Alternatives 12A and 12B. Direct left-turn ingress and egress to East Alameda Road is prohibited, but drivers can make the movement indirectly by utilizing the signalized U-turns on Jefferson Avenue and Hiline Rod, with an alternative U-turn location on Pocatello Creek Road. Likewise, direct left-turn ingress and egress to Deon Drive is prohibited, but drivers can make the movement indirectly by utilizing the signalized U-turns on Jefferson Avenue and Pocatello Creek Road.

Figure 15 shows access for Alternative 14A. Direct left-turn ingress and egress to East Alameda Road is prohibited. Drivers who want to make an indirect left-turn would need to make U-turns at driveways or in private parking lots or find alternative routes or destinations. Likewise, direct left-turn ingress and egress to Deon Drive is prohibited, but exiting drivers can make utilize the unsignalized U-turns on Pocatello Creek Road. Drivers who want to make indirect left-turn ingress to Deon Drive would make U-turns at driveways or in private parking lots or would find alternative routes or destinations.

Figure 16 shows access for Alternative 14B. Direct left-turn ingress and egress to East Alameda Road is prohibited, but drivers can make the movement indirectly by utilizing the unsignalized U-turns on Jefferson Avenue and Hiline Road, with an alternative U-turn location on Pocatello Creek Road. Likewise, direct left-turn ingress and egress to Deon Drive is prohibited, but drivers can make the movement indirectly by utilizing the unsignalized U-turns on Jefferson Avenue and Pocatello Creek Road.

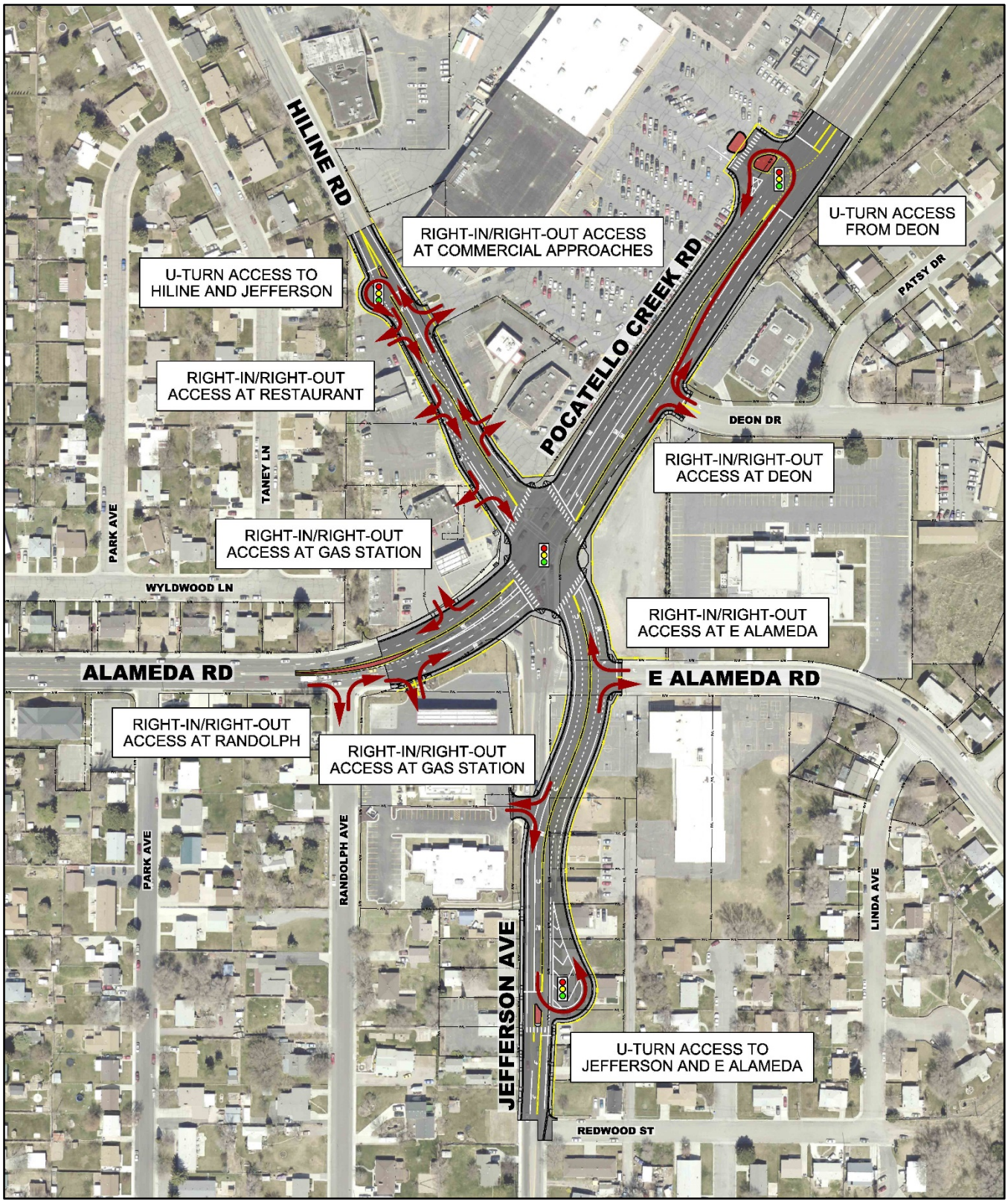


Figure 14. Local street and driveway access for Alternatives 12A and 12B

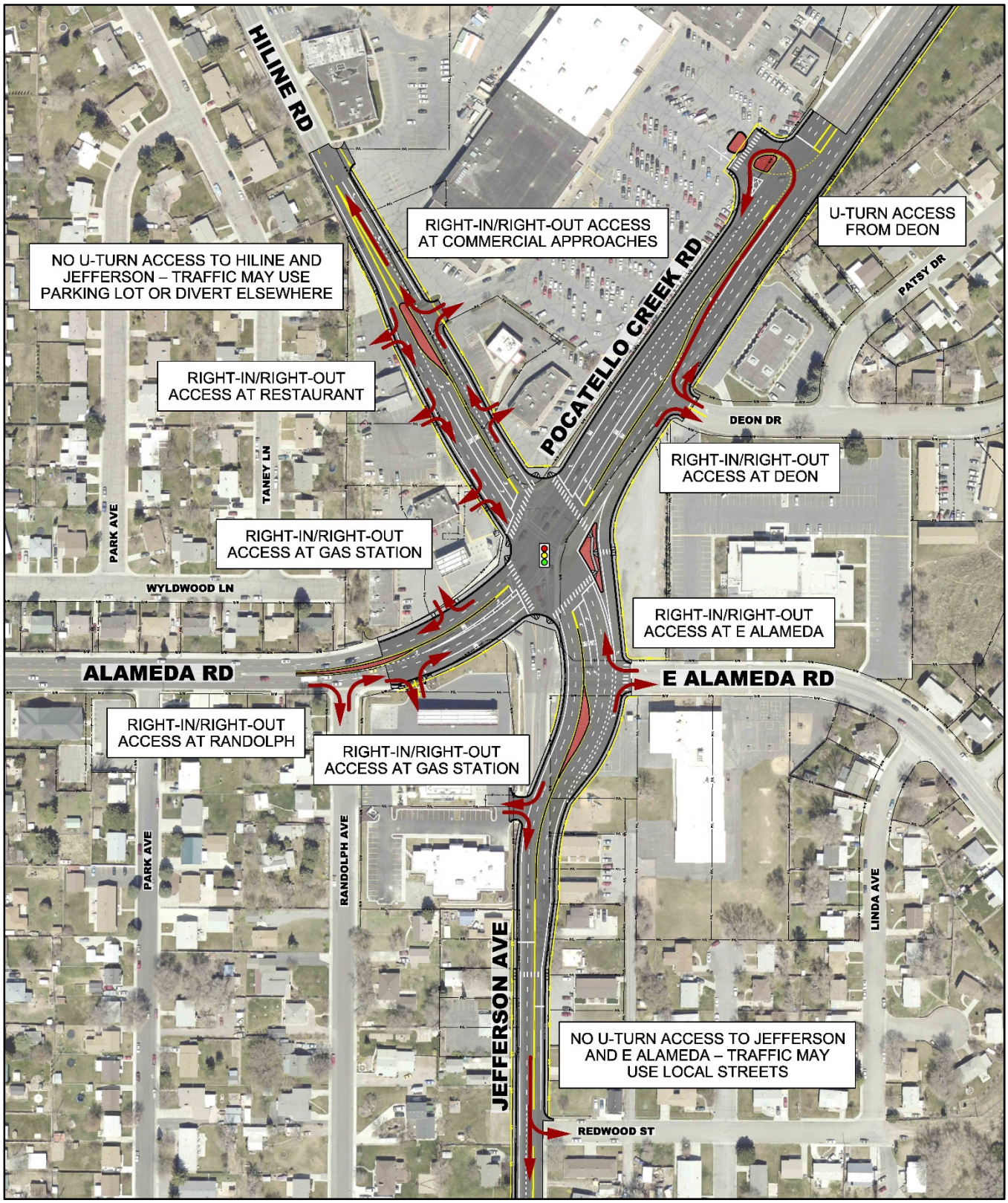


Figure 15. Local street and driveway access for Alternative 14A

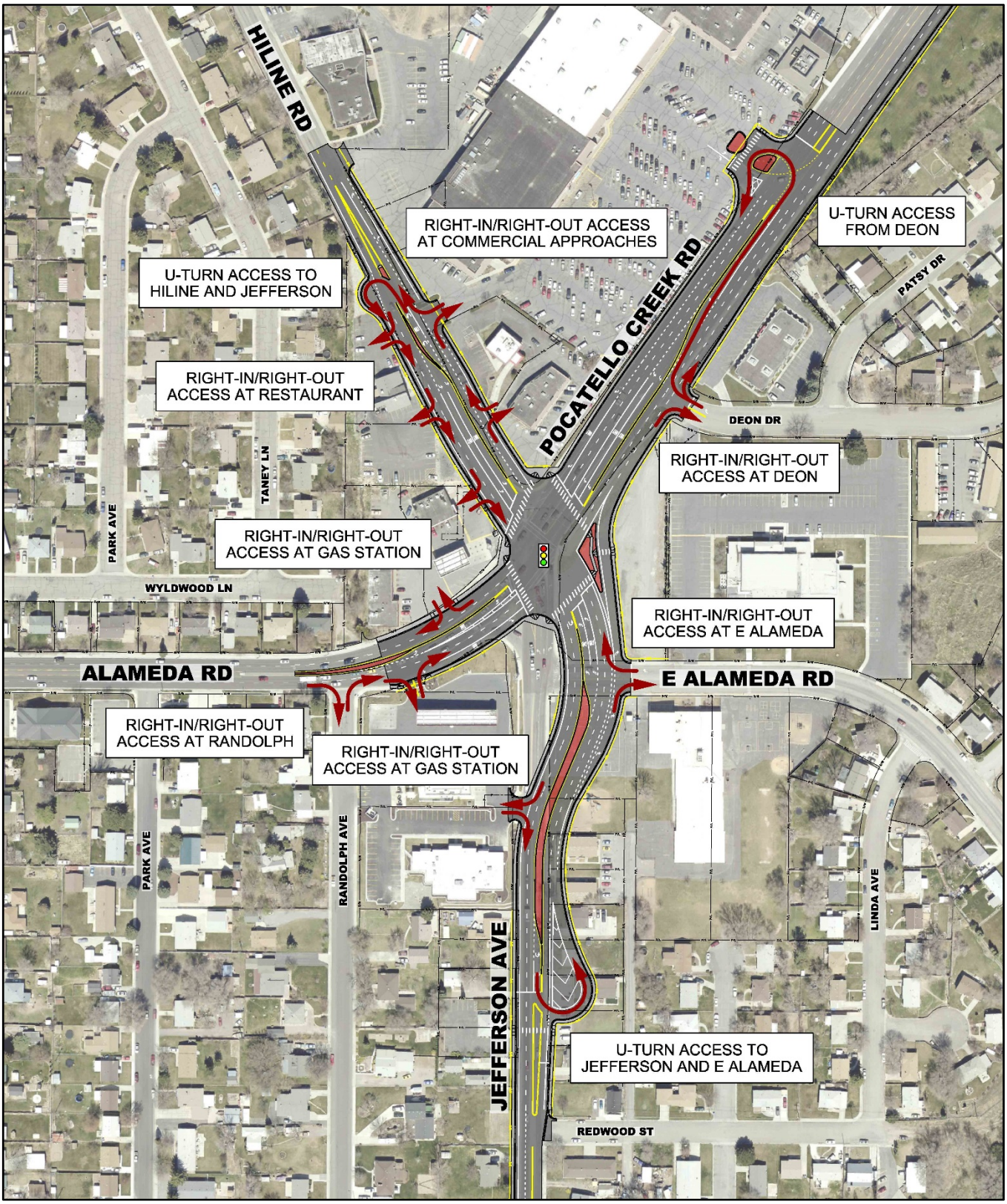


Figure 16. Local street and driveway access for Alternative 14B

Pedestrians and Bicyclists

The criteria used to evaluate the alternatives' relative performance for pedestrian and bicyclists were based on the pedestrian crossing distances. Bike lane locations are consistent with all alternatives, with the difference being the intersection crossing distances. As a result, the pedestrian crossing distances were used as the evaluation criteria.

Potential Environmental Impacts

The potential environmental impacts used for the evaluation criteria are: noise, Pocatello Creek and Tendoy Elementary.

Estimated Right-of-Way Acquisition and Construction Costs

Estimated right-of-way and construction costs were developed on a planning-level basis for use as a comparison between alternatives. Actual costs may be higher or lower. The costs were estimated using the following assumptions:

- Right-of-Way:
  - Land – Where partial acquisition of parcel was identified, with no structures, a cost of $11 per square foot was utilized matching the unit cost of the 990 Jefferson parcel recently acquired.
  - Residential and Commercial Buildings – Where total property acquisition was identified, the 2013 value from the Bannock County Assessor was applied (includes land).
  - Mitigation Costs – Where parking stalls were impacted, for the loss of each parking stall was estimated at $10,000 per stall.
  - Contingency – A 15 percent contingency was included to account for concept-level design
- Construction:
  - Roadway – A cost of $13 per square foot was applied to the total area of pavement. The estimated cost was based on recent bids for ITD (federal aid) intersection projects. Drainage, traffic signals equipment, and illumination are included in the cost.
  - Contingency – A 15 percent contingency was included to account for the concept-level design

Figure 17 on page 18 compares the right-of-way required for two alternatives, 12A and 14A. The estimated costs are summarized on Table 3 on page 20.

Figure 17. Right-of-way impacts of Alternatives 12A and 14A

Benefit/Cost

The benefit/cost ratio was calculated to compare the vehicle operations benefits to the project costs. The benefits consist of savings due to reduced delay and fuel consumption compared to Alternative 1, No-Build, which is assumed to have a benefit of zero.

The delay cost of $11.40 per hour was based on the Idaho Transportation Department's road user cost for automobiles. It does not include delay costs for commercial vehicles. The fuel cost was estimated at $3.84 per gallon, which was the average price per gallon in Idaho at the time of the analysis as reported by AAA.

For the calculation, the delay and fuel savings were assumed to occur for a total of seven hours during the weekday, for 250 work days during the year, over a 20-year design life. The 2039 PM peak hour delay values were scaled down for the AM and midday by factors equivalent to the existing differences in total PM peak hour traffic volumes.

Ranking

The evaluation results for the seven evaluation criteria are presented in Table 3 on page 20. The alternatives were ranked from one to seven for the seven alternatives evaluated. Alternative 10 was not included in the evaluation because it does not meet the LOS D threshold for the project. Each alternative was assigned points according to their ranking: one point for the top-ranked alternative down to seven points for the lowest ranked alternative. The alternatives were than score from lowest point total for the top alternative and the highest point total for the lowest alternative.

Table 3. Evaluation matrix

Criteria	No-Build Alternative	Alternative 10 *	Alternative 11	Alternative 12A	Alternative 12B	Alternative 13	Alternative 14A	Alternative 14B
Traffic Operations								
Main intersection LOS/average vehicle delay (seconds)	F / 94	F / 93	D / 42	D / 49	D / 45	– **	D / 52	D / 54
Network average stopped delay per vehicle (seconds)	71	41	19	28	27	32	29	29
Network average network delay per vehicle (seconds)	93	58	43	48	46	49	43	42
Network average distance traveled per vehicle (miles)	0.48	0.42	0.54	0.52	0.52	0.51	0.51 ***	0.49
Rank	7	–	1	3	2	6	3	3
Safety								
Potential vehicle conflicts at main intersection	32	–	12	20	20	32	32	32
Potential vehicle conflicts per hour in the project area	860	–	440	320	330	450	310	320
Free right-turn movement	No	–	No	No	Yes	No	Yes	Yes
Rank	7	–	2	1	3	6	4	4
Access Locations								
Full access	24	–	6	10	10	7	14	10
Right-in/right-out access without U-turn bulb-out	4	–	1	3	3	5	12	3
Right-in/right-out access with U-turn bulb-out	0	–	13	11	11	9	1	11
Rank	1	–	2	3	3	6	7	3
Pedestrians and Bicyclists								
Average crossing distance (feet)	75	–	85	90	80	100	90	90
Bike lanes	No	–	Yes	Yes	Yes	Yes	Yes	Yes
Rank	6	–	2	3	1	7	3	3
Potential Environmental Impacts								
Noise impacts	None	–	Moderate	Minor	Major	Moderate	Major	Major
Pocatello Creek (404 impact avoidance costs)	None	–	None	None	Major	None	Major	Major
Tendoy Elementary (4f impact area)	None	–	0.40 acre	0.41 acre	0.41 acre	0.40 acre	0.44 acre	0.46 acre
Rank	1	–	3	2	5	3	6	7
Estimated Right-of-Way and Construction Costs								
Estimated right-of-way costs (millions)	$0	–	$3.0	$2.4	$2.7	$3.8	$2.9	$3.2
Estimated construction costs (millions)	$0	–	$4.7	$4.0	$4.7	$4.8	$5.0	$5.9
Total estimated costs	$0	–	$7.7	$6.4	$7.4	$8.6	$7.9	$9.1
Rank	1	–	4	2	3	6	5	7
Benefit/Cost								
B/C ratio	–	–	3.0	3.4	3.0	2.5	3.1	2.8
Rank	7	–	3	1	3	6	2	5
Alternative Ranking Score (equal weighting)	**6**	**–**	**2**	**1**	**3**	**7**	**4**	**5**

* Does not meet LOS D threshold so was removed from the alternative evaluation
** Intersection LOS could not be calculated for the double crossover with macroscopic analysis methods
*** Travel distance does not include out-of-direction travel on Hiline and Jefferson

RECOMMENDATIONS

Alternative 12A is recommended for this project. It is the top ranked alternative and has the highest benefit/cost ratio of all alternatives, meaning that its benefits of reduced vehicle delay and fuel savings over the 20-year life of the improvements are the best value of all alternatives. It also has the lowest estimated right-of-way and construction costs, excluding the No-Build, with estimated costs more than 20 percent lower than the two conventional intersections, Alternatives 14A and 14B. It also ranks near the top for the traffic operations, access, safety, pedestrian and bicyclists, and potential environmental impacts criteria.

Alternative 12A is a partial thru-turn intersection, with thru-turns on the lower traffic volume local streets (Hiline Road and Jefferson Avenue) and conventional left-turns on the higher traffic volume I-15 business route (Alameda Road and Pocatello Creek Road). Raised medians are placed on the intersecting roadways to improve safety, limiting access for driveways and local streets to right-in/right-out. U-turn bulb-outs are included with this alternative to improve access. This alternative utilizes the U-turn bulb-outs by signalizing them so that left-turns can be removed from the main intersection. This results in fewer lanes at the main intersection, lower costs and lower property impacts than the conventional intersection improvements.

Alternative 11 is the second-ranked alternative and differs from Alternative 12A by the addition of a fourth thru-turn intersection, which would remove all left turns from the main intersection. This intersection has capacity to handle more traffic demand than Alternative 12A; as a result, when Alternative 12A reaches capacity, Alternative 11 could be implemented to provide additional capacity.

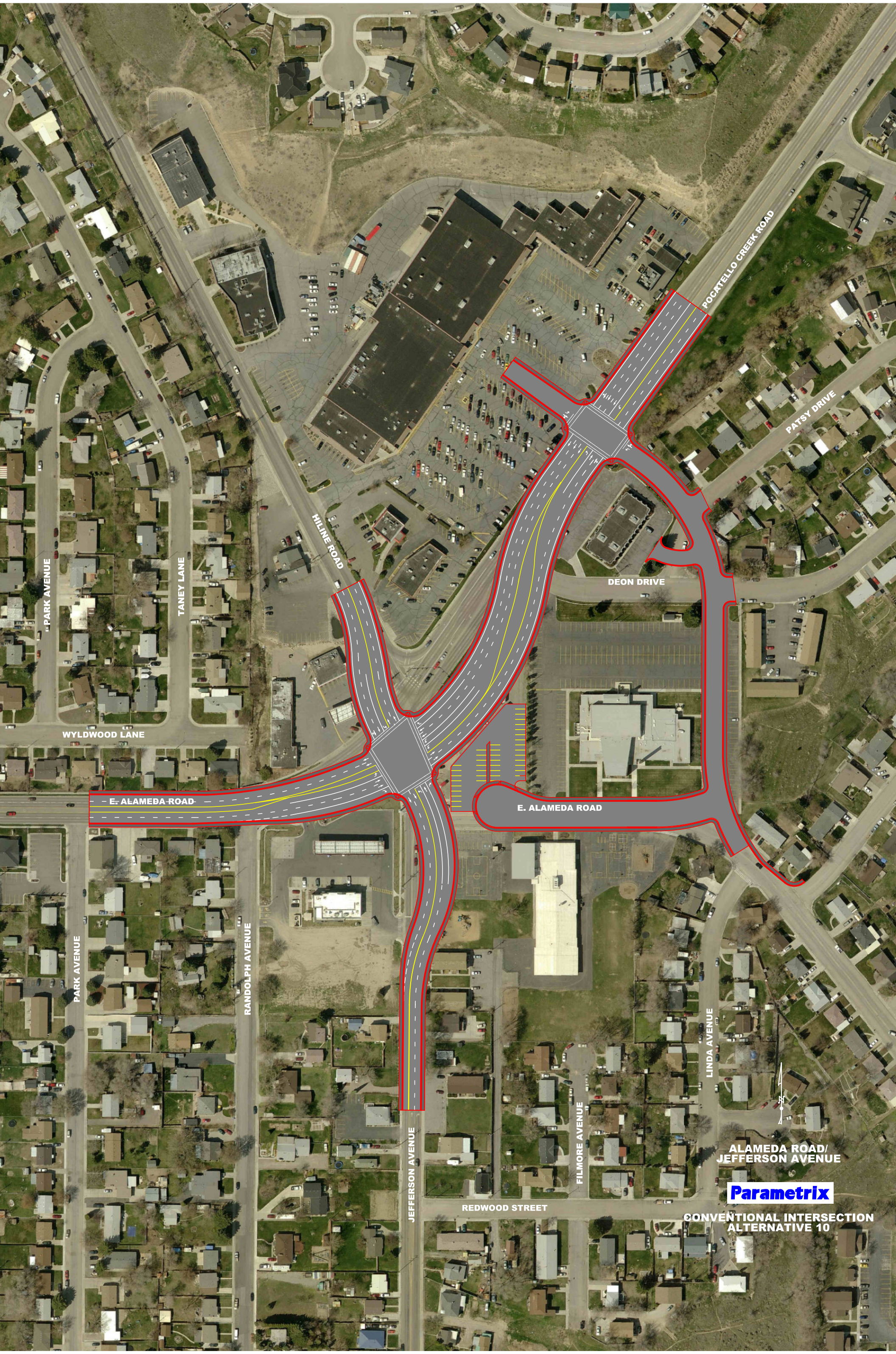
Alternative 12B is the third-ranked alternative and differs from Alternative 12A by adding a free right-turn movement for northbound Jefferson Avenue traffic. As noted in the description for Alternative 12B on page 8, there are safety concerns with free right-turn movements and are therefore not recommended for this project.

Alternatives 14A and 14B are ranked fourth and fifth respectively. Both of the two conventional intersections require free right-turn movements for northbound Jefferson Avenue traffic in order to achieve the LOS D threshold required for the project. Alternative 14A has significant issues with access. Without U-turn bulb-outs on Hiline Road and Jefferson Avenue, drivers who want to turn left from the approaches and local streets would need to make U-turns at driveways or in private parking lots or find alternative routes or destinations. Alternative 14B address the access issue by adding U-turn bulb-outs on Hiline Road and Jefferson Avenue, but the additional costs make this the most expensive alternative. For these reasons, these alternatives are not recommended for this project.

The **No-Build Alternative** is the sixth-ranked alternative and is not recommended for this project because it does not address the project needs.

Alternative 13 is ranked last and is not recommended for this project. This alternative has potential safety issues and this type of intersection has not yet been constructed in the U.S.

APPENDIX A – INTERSECTION EXHIBITS


POCATELLO CREEK ROAD
PATSY DRIVE
HILINE ROAD
DEON DRIVE
PARK AVENUE
TANEY LANE
WYLDWOOD LANE
E. ALAMEDA ROAD
E. ALAMEDA ROAD
PARK AVENUE
RANDOLPH AVENUE
JEFFERSON AVENUE
FILMORE AVENUE
LINDA AVENUE
REDWOOD STREET
ALAMEDA ROAD/
JEFFERSON AVENUE
Parametrix
CONVENTIONAL INTERSECTION
ALTERNATIVE 10

INT ALAMEDA AND JEFFERSON, POCATELLO

Project No. A011(657), Key No. 11657

ALTERNATIVE 11

0 25' 50' 75'

SEPTEMBER 2014

INT ALAMEDA AND JEFFERSON, POCATELLO

Project No. A011(657), Key No. 11657

ALTERNATIVE 12A

0 25' 50' 75'

SEPTEMBER 2014

DRAFT JULY 2014

INT ALAMEDA AND JEFFERSON, POCATELLO

Project No. A011(657), Key No. 11657

ALTERNATIVE 12B

0 30' 60' 90'

SEPTEMBER 2014

INT ALAMEDA AND JEFFERSON, POCATELLO

Project No. A011(657), Key No. 11657

ALTERNATIVE 13

0 25' 50' 75'

SEPTEMBER 2014

INT ALAMEDA AND JEFFERSON, POCATELLO

Project No. A011(657), Key No. 11657

ALTERNATIVE 14A

0 30' 60' 90'

SEPTEMBER 2014

INT ALAMEDA AND JEFFERSON, POCATELLO

Project No. A011(657), Key No. 11657

ALTERNATIVE 14B

0 30' 60' 90'

SEPTEMBER 2014

APPENDIX B – SUMMARY OF AGENCY COORDINATION ON THRU-TURN INTERSECTIONS

INTRODUCTION

Purpose

All of the intersection alternatives developed for this project improve safety by incorporating access management to minimize left-turning conflicts and restricting access to right-in/right-out. Alternative means of access need to be provided to minimize impacts to businesses and residences along the project that currently utilize left-in and left-out movements. U-turns have been shown to be a safe alternative to the conventional left-in and left-out movements. Each of the intersection alternatives developed for this project fully or partially incorporate U-turns into their designs to improve local access. The thru-turn intersection concept uses U-turns to improve intersection capacity and safety, making it an excellent candidate for improving access at the intersection of Alameda Road and Jefferson Avenue.

Six Mile researched thru-turn intersections constructed in the United States and contacted the responsible agencies, when possible, to learn of their experiences with implementing this intersection type. News articles regarding the intersections were collected as well. This report includes a general discussion of thru-turn intersections and a summary of the agency interviews. The news articles may be found at the end of this appendix.

Background

Left-turning demand is one of the most critical factors affecting traffic operations and safety. Many intersection designs have been developed and implemented that incorporate indirect left turns, which replace standard left-turning movements with combinations of through movements and/or right-turning movements. The thru-turn design concept replaces a direct left turn with a through movement to a U-turn and then a right turn, or with a right turn to a U-turn and then a through movement.

Thru-turn intersections in the United States originated in Michigan in the 1960s. Michigan DOT has used them extensively to add capacity along divided highways with limited local access. The intersections are now common in Michigan and familiar to local motorists. A number of other states in the east have successfully implemented variants of the design. In the west, thru-turn intersections have recently been implemented in Texas, Utah, and Arizona.

Elements of Thru-Turn Intersection Designs

A full thru-turn intersection provides U-turn locations at secondary intersections on all four legs of the main intersection. All left turns are prohibited at the main intersection. A partial thru-turn intersection provides two or three U-turn locations. It is possible for all left turns to be prohibited at the main intersection, but some implementations prohibit left turns from only one of the two intersecting roadways.

The U-turn locations of thru-turn intersections are typically signalized, and phasing for U-turning traffic is either protected (with a green arrow) or permissive-protected (typically with a flashing-yellow arrow and then a green arrow). With protected phasing, separate phases are provided for U-turn movements. Opposing traffic is stopped during these intervals. With permissive-protected phasing, U-turns may be made in the permissive phase when permitted by gaps in opposing traffic, and protected phases are

regularly provided to prevent excessive waits. In some cases, dual U-turns are used to allow two lanes of traffic to perform U-turns simultaneously.

U-turn locations on roadways with wide medians allow some or all of the U-turn movement to be performed within the median width. On roadways with narrow or no medians, a bulb-out is added to provide additional pavement width on the outside of the roadway for vehicles to make the U-turn movement.

OVERVIEW OF AGENCY COORDINATION

Six Mile contacted six agencies that have implemented thru-turn intersections. A brief overview of the results are given below. Descriptions of the intersections with summaries of the agencies' comments are given following this section.

Traffic Operations

In all cases, the agency contacts reported that the thru-turn intersections have been successful in terms of reducing congestion. Where reported, the average delay to vehicles using the thru-turn intersections has been reduced, though the delay reduction seems to be greatest for through traffic. Nevertheless, it seems that even though left-turning traffic must travel longer distances for indirect left turns, there is typically an overall reduction in delay for those motorists.

Public Reception

In all cases, the thru-turn intersections have been met with reluctance and opposition by the public, at least initially. There seem to be two primary reasons for this. The first reason is that thru-turn intersections are unfamiliar to most motorists, and the potential benefits of indirect left turns are not necessarily apparent. The owners of adjacent business are concerned that the complexity of the thru-turn intersection will motivate motorists to avoid the area. The second reason for public resistance is that thru-turn intersections are accompanied by access management measures that restrict local access. If access management had already been implemented, the thru-turns have been welcomed because they have improved access. But otherwise, thru-turn intersections are blamed for the access restrictions. However, in cases such as the Draper intersection in Utah, when there were high levels of congestion and very little access management, any intersection improvements would have necessitated implementing access management. The owner of the gas station at the Draper thru-turn intersection went out of business within a year of the completion of construction, and he placed the blame entirely upon the thru-turn design. However, the primary culprit appears to be the access restrictions made to his parcel that were necessary for safety, due to the parcel's proximity to the intersection and the freeway interchange.

The thru-turn intersection that was best received by the public was the Grant Road and Oracle Road intersection in Tucson, Arizona. It seems that the distinctive feature of the intersection was that the U-turn locations used permissive-protected phasing, which reduced delay to left-turning traffic during off-peak periods.

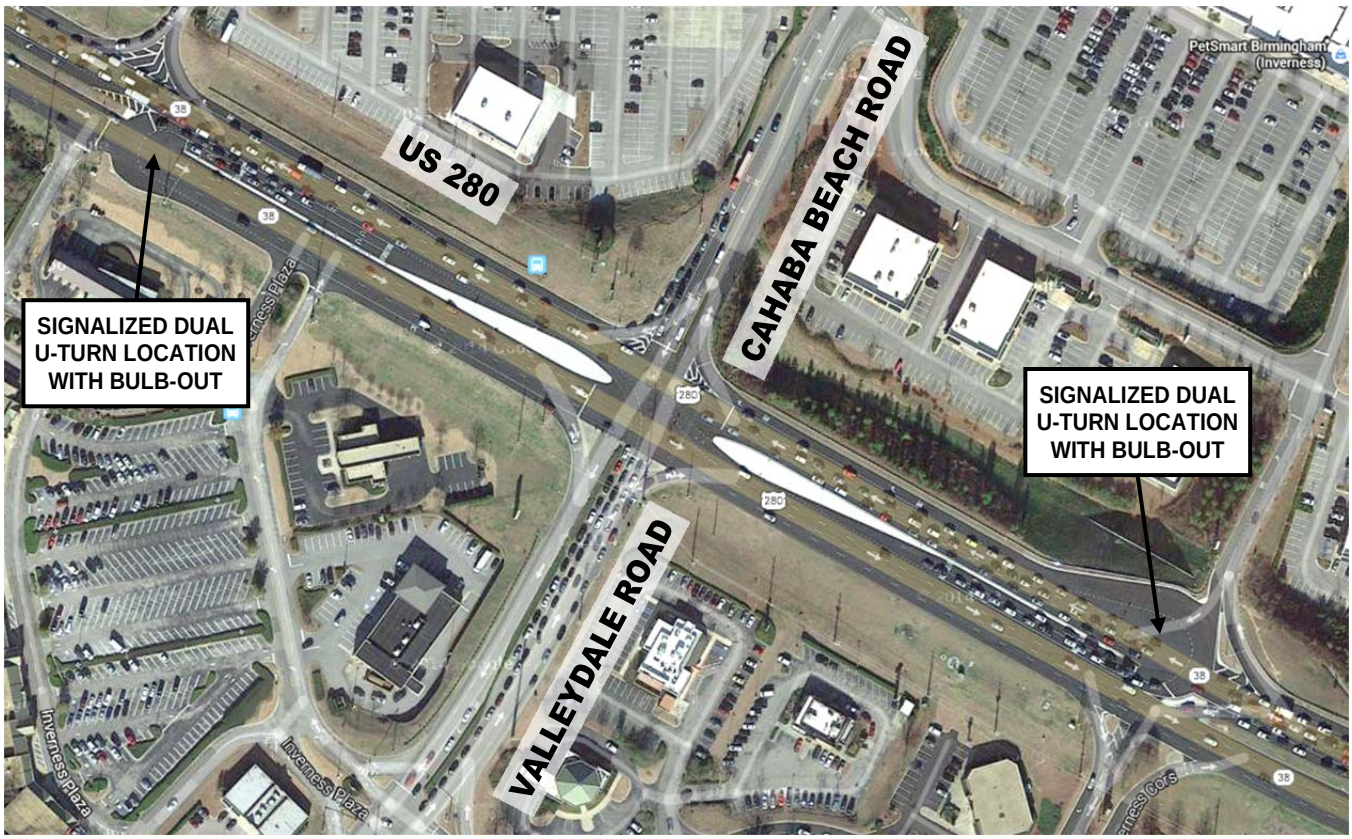
Intersection Most Similar to Alameda Road and Jefferson Avenue Intersection

The Alameda Road and Jefferson Avenue intersection is in a commercial area surrounded by residential areas, and is near an interstate highway. It has an ADT of 37,000. The thru-turn intersection that is most comparable is the 5400 South and 4015 West intersection in Kearns, Utah, which has an ADT of 75,000 but is in a similar setting to the Alameda Road and Jefferson Avenue intersection.

ALABAMA

Contact: Brett Sellers, P.E.
Traffic Management Center Manager
Alabama Department of Transportation
205-581-5659

US 280 and Valleydale Road/Cahaba Beach Road, Birmingham



- Partial thru-turn intersection with bulb-outs on major roadway (US 280)
- Left turns are prohibited from major roadway (US 280)
- Left turns are permitted from minor roadway (Valleydale Road/Cahaba Beach Road)
- U-turn locations are dual-lane with protected phasing
- Construction finished in September 2013

- Positives:
  - Intersection operations are significantly improved
  - Reduces average travel times by 30 to 45 seconds per cycle
  - Reduces delay to through traffic more than to left-turning traffic
- Negatives:
  - Unfamiliar to motorists
  - Out-of-direction travel of thru-turn movements is unpopular
  - Some illegal left turns have occurred at intersection
- Safety benefits are being evaluated
- Alabama DOT is open to using thru-turn intersections in the future
- See end of this appendix for an article on the project

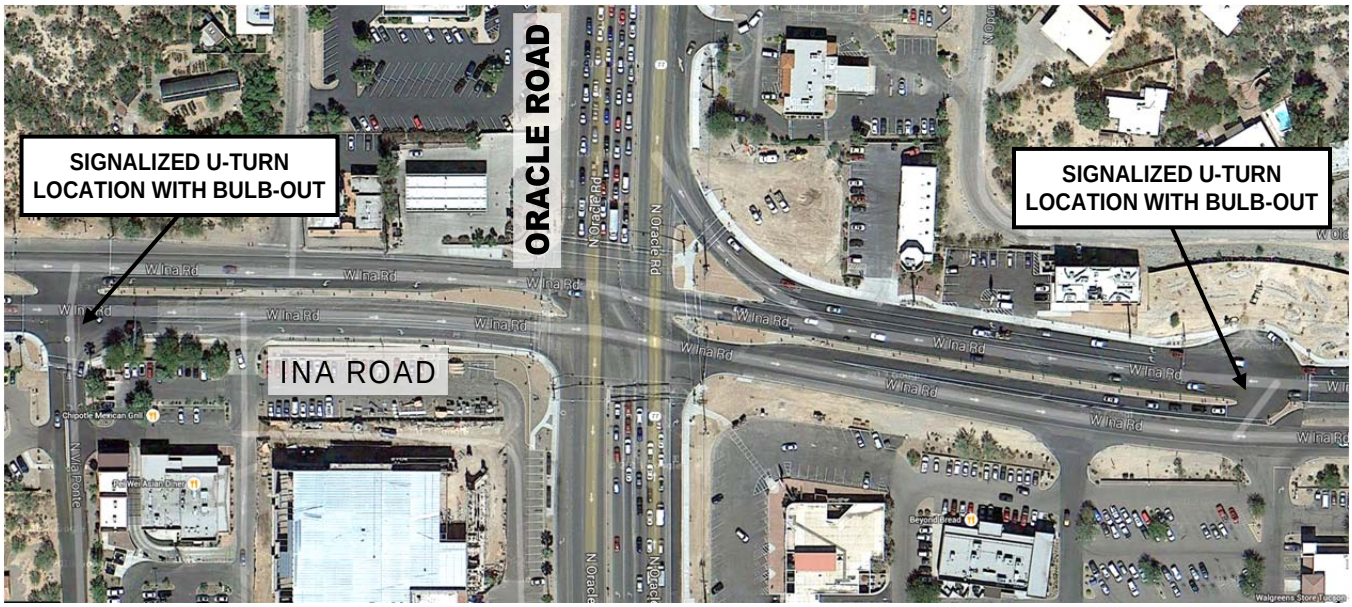
ARIZONA

Contact: Bob Hunt, P.E.
Traffic Engineer
Tucson Department of Transportation (Currently with Pima County RTA)
520-837-6658

Grant Road and Oracle Road, Tucson

- Partial thru-turn intersection with bulb-outs on minor roadway (Grant Road)
- Left turns are permitted from major roadway (Oracle Road)
- Left turns are prohibited from minor roadway (Grant Road)
- U-turn locations are single-lane with permissive-protected phasing
- Estimated intersection ADT 67,000
- Received only one complaint since installation
- Safety benefits are being evaluated
- Constructed by Tucson DOT
- Tucson DOT has funding for five additional thru-turn intersections over the next ten years, with more planned
- Construction finished in late 2013
- See end of this appendix for ten articles on the Arizona projects

Ina Road and Oracle Road, Tucson



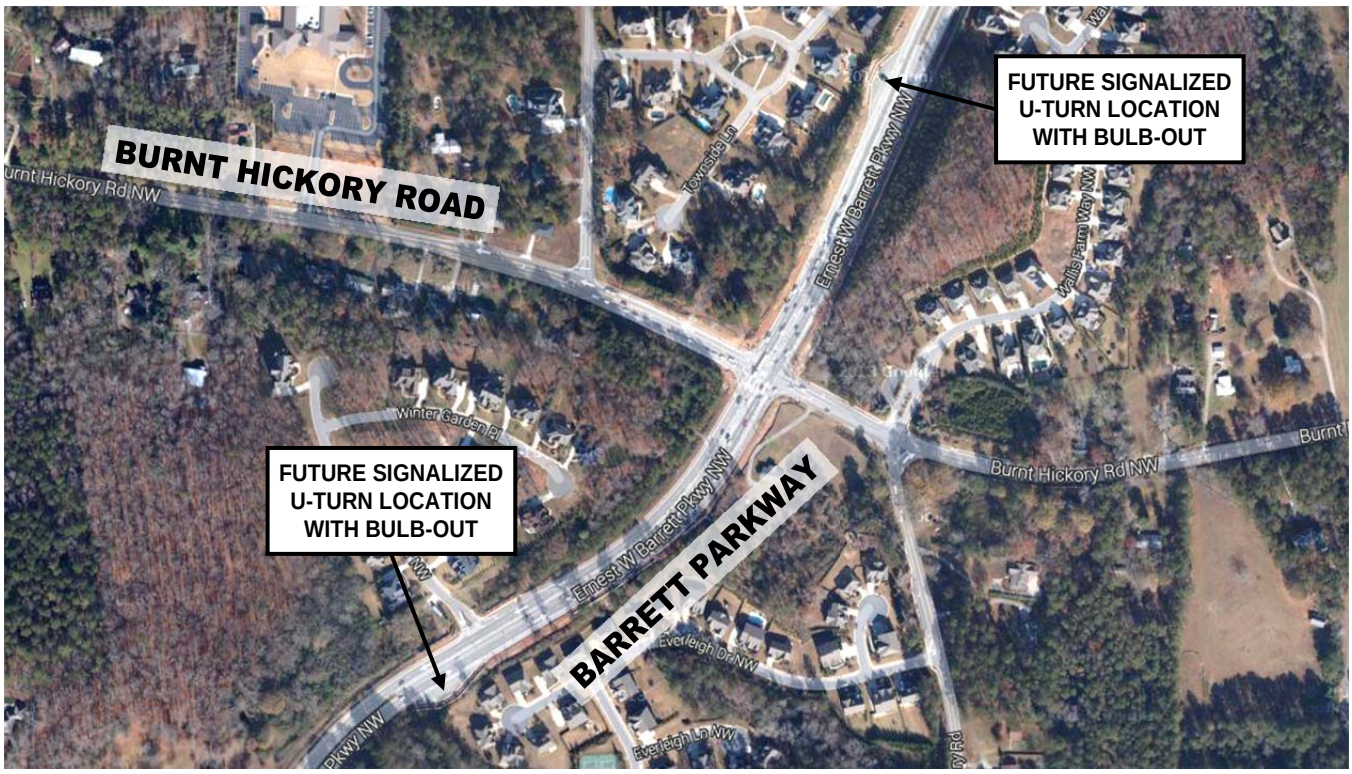
- Partial thru-turn intersection with bulb-outs on minor roadway (Ina Road)
- Left turns are permitted from major roadway (Oracle Road)
- Left turns are prohibited from minor roadway (Ina Road)
- U-turn locations are single-lane with protected phasing
- Estimated intersection ADT 96,000
- Safety benefits are being evaluated
- Constructed by Pima County and Arizona DOT

- Construction finished in late 2013
- See end of this appendix for ten articles on the Arizona projects

GEORGIA

Contact: Mike Wright, P.E.
District 1 Engineer
Cobb County Department of Transportation
770-528-4375

Barrett Parkway and Burnt Hickory Road, Marietta



- Partial thru-turn intersection with bulb-outs on major roadway (Barrett Parkway)
- Left turns are permitted from both roadways
- Traffic volumes dropped significantly with economic downturn so thru-turn operations were not implemented, but will be when warranted
- Construction finished in 2011
- See end of this appendix for two articles on the project

INDIANA

Contact: Jeff Hill, P.E., PTOE
Director of Engineering
Town of Fishers
317-595-3162

96th Street and Allisonville Road, Fishers (NE of Indianapolis)

- Full thru-turn intersection with bulb-outs on all legs
- Left turns are prohibited from both roadways
- U-turn locations are single-lane with protected phasing
- Construction finished in August 2013
- Positives:
    - Intersection operations were greatly improved, going from LOS E to LOS B after construction
    - Left-turn delay decreased significantly
    - Average travel times decreased by about 17%

- Negatives:
    - Public was upset by 18-month construction duration
    - Public disliked improvements initially but now most have accepted them
- Safety benefits are being evaluated
- City of Fishers is undecided about using thru-turn intersections in the future
- See end of this appendix for three articles on the project

MICHIGAN

Example intersection: Grand River Avenue and Eight Mile Road

Since the sixties, Michigan DOT has installed U-turn locations along many of the state's highways to increase capacity and safety. The highways typically have wide medians that allow U-turns to be performed entirely within the median. Michigan currently has more than 400 miles of thru-turn corridors with over 700 median U-turn locations. Many of the corridors are in the Detroit area, including the following:

- Eight Mile Road
- Telegraph Road
- Grand River Avenue
- Michigan Avenue
- Woodward Avenue
- Six Mile Road
- Sixteen Mile Road

Because Michigan's thru-turn corridors have been around since the 1960s and access management has long been established along Michigan highways, there is no apparent local contention regarding thru-turn implementation and use. Because Michigan implements the U-turns on corridors instead of individual intersections, the implementation is different so Six Mile did not contact Michigan DOT.

TEXAS

Contact: Gerald Cosgrove, P.E.
Director of Public Works
City of Plano
972-769-4140

Preston Road and Legacy Drive, Plano

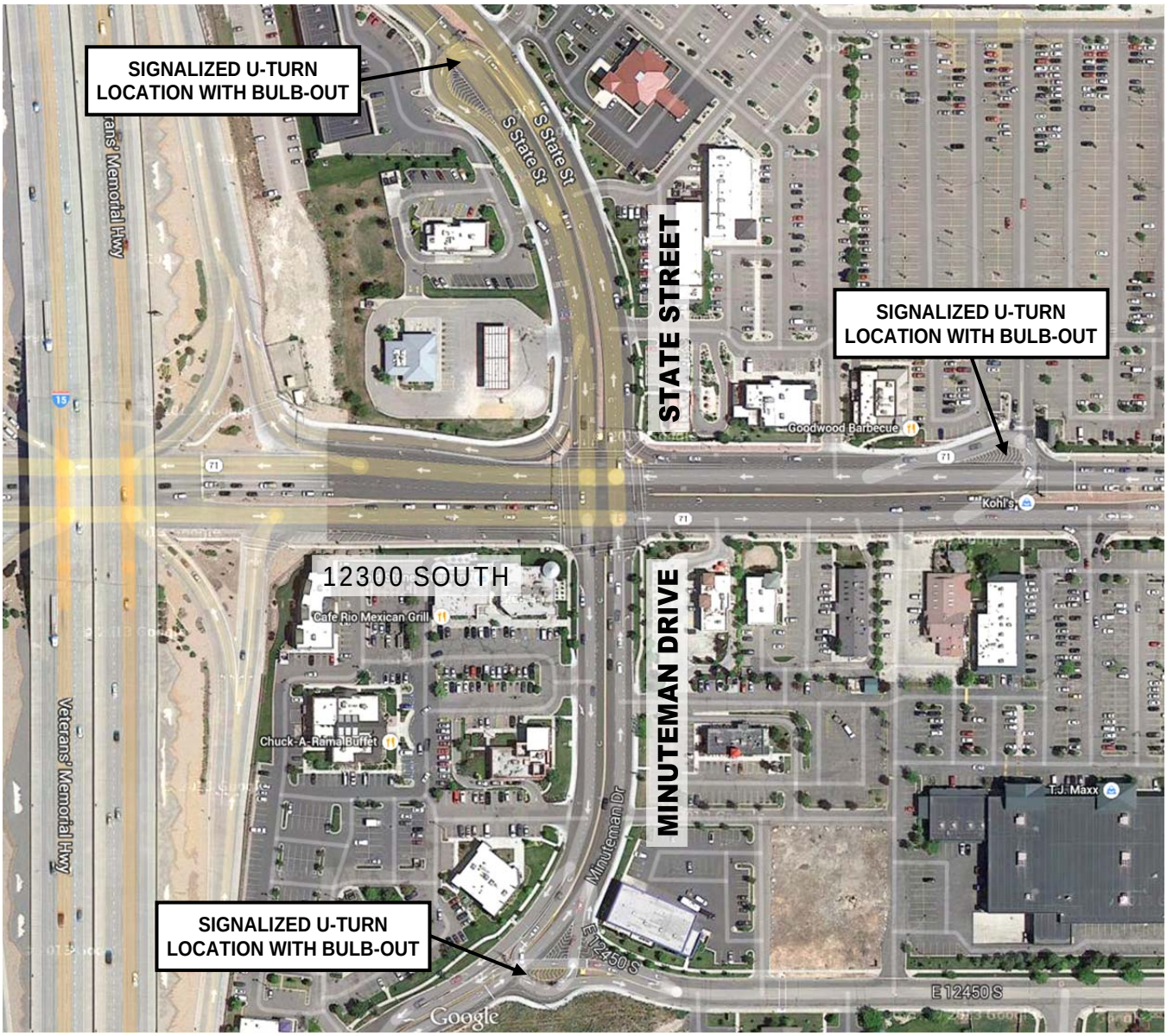
- Partial thru-turn intersection with U-turn locations in median on major roadway (Preston Road)
- Conversion to thru-turn operations involved retrofit of existing intersection that was configured like an at-grade diamond interchange

- Prior to construction, intersection had unsignalized U-turns on Preston Road, located immediately upstream of the intersection
    - This type of U-turn location, called a “turnaround”, is commonly used on interchanges in Texas
- Improvements were installation of downstream signalized U-turn locations on Preston Road
- Construction finished in July 2010
- Left turns were permitted from major roadway (Preston Road)
- Left turns were prohibited from minor roadway (Legacy Drive)
- North U-turn location was dual-lane with protected phasing
- South U-turn location was single-lane with protected phasing
- Estimated intersection ADT 70,000–75,000
- Positives:
    - Intersection operations were significantly improved
    - Crashes decreased
- Negatives:
    - Public did not accept the improvements
    - Received only one positive comment in 2.5 years
    - Legacy Drive motorists did not like having to go right to go left
    - Estimated 75% of left-turning traffic went elsewhere
    - Crash severity increased due to increased speeds made possible by the reduced congestion
- Intersection was converted back to conventional operations in February 2014
- U-turn locations may still be used but are now both single-lane and stop-controlled
- A study conducted before the conversion back estimated that returning to conventional operations would result in an increase in average vehicle delay of over 400%
- City of Plano will not consider thru-turn intersection option in foreseeable future
- See end of this appendix for three articles on the project

UTAH

Contact: Fred Doehring, P.E.
Deputy Preconstruction Engineer
Utah Department of Transportation
801-633-6215

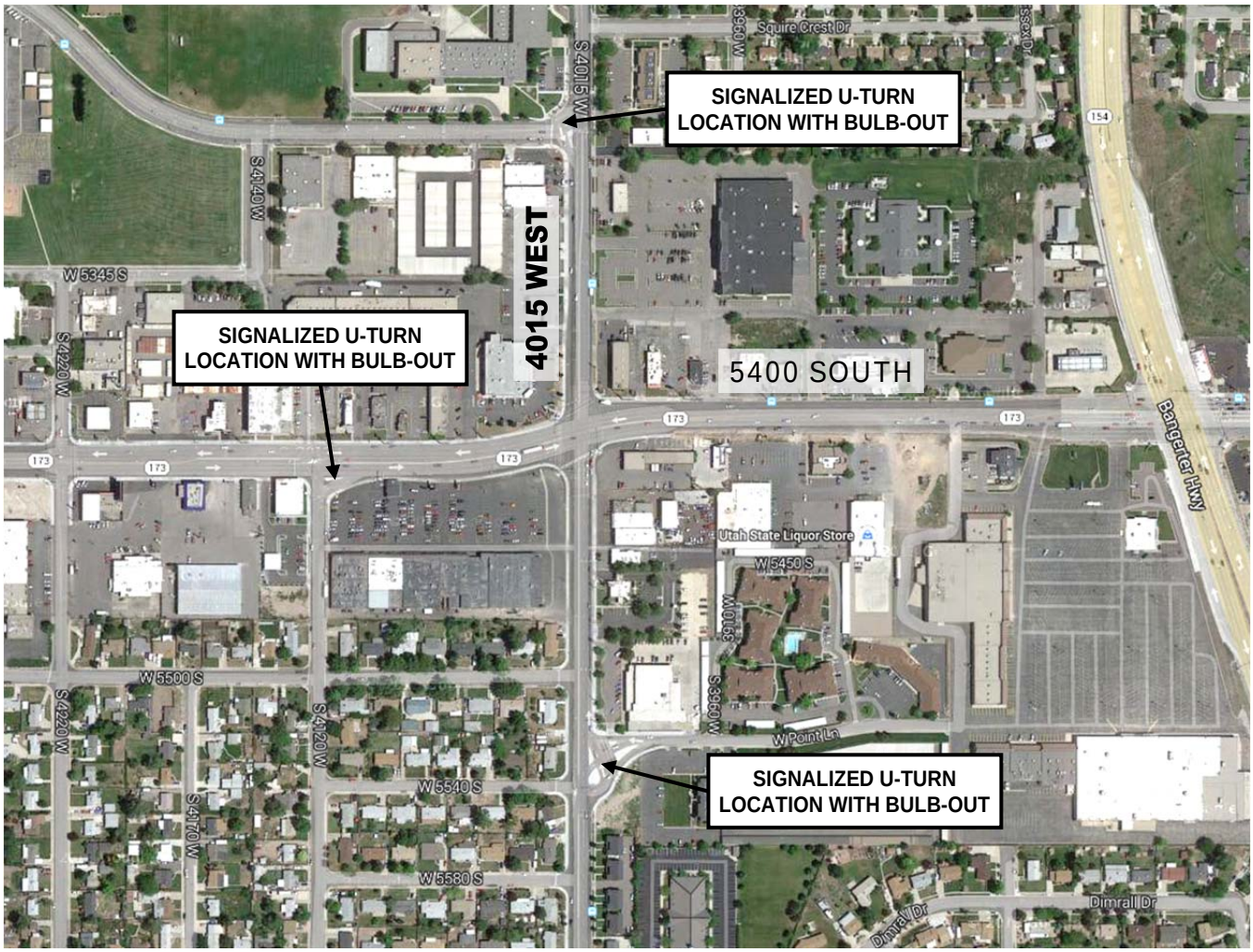
12300 South and Minuteman Drive/State Street, Draper



- Partial thru-turn intersection with bulb-outs on minor roadway (Minuteman Drive/State Street) and one on major roadway (12300 South)
- All left turns are prohibited at intersection

- U-turn locations are single-lane with protected phasing
- Estimated intersection ADT 75,000 or greater
- Construction finished in November 2011
- Positives:
    - Congestion has been reduced
    - Average delay has been reduced from minutes to seconds
    - Tax revenue indicates local businesses have not experienced an overall negative impact
    - Most motorists are using intersection correctly
- Negatives:
    - Out-of-direction travel of thru-turn movements is unpopular
    - Received complaints that intersection's complexity and access restrictions have negatively impacted local businesses
    - Owner of gas station on northwest corner blames intersection for having gone out of business
    - Some illegal left turns have occurred at intersection
- UDOT is working on three additional thru-turn intersections in urban areas
    - A thru-turn intersection is scheduled to be constructed on an arterial in Layton in 2015
- UDOT has offered to facilitate tours of their thru-turn intersections to demonstrate how they operate
- See end of this appendix for four articles on the Utah projects

5400 South and 4015 West, Kearns



- Partial thru-turn intersection with bulb-outs on minor roadway (4015 West) and one on major roadway (5400 South)
- All left turns are prohibited at intersection
- U-turn locations are single-lane with protected phasing
- Estimated intersection ADT 75,000 or greater
- Construction finished in November 2012
- Positives:
    - Congestion has been reduced
    - Average delay has been reduced from minutes to seconds
    - Most motorists are using intersection correctly
- Negatives:
    - Out-of-direction travel of thru-turn movements is unpopular

  - Received complaints that intersection's complexity and access restrictions have negatively impacted local businesses
  - Some illegal left turns have occurred at intersection
- See end of this appendix for four articles on the Utah projects

ALABAMA ARTICLES

U.S. 280: 'Michigan Left' U-turn at Valleydale scheduled to be in effect for Friday morning commute (animation)

Mike D. Smith | msmith@al.com By **Mike D. Smith | msmith@al.com**

Email the author | **Follow on Twitter**

on September 05, 2013 at 2:49 PM, updated September 05, 2013 at 3:24 PM

BIRMINGHAM, Alabama -- The next major traffic shift along U.S. 280 is scheduled to be in effect for the Friday morning commute, according to the Alabama Department of Transportation.

The change installs a type of "Michigan Left" along the highway at Valleydale Road, which will require drivers to proceed through the intersection and make U-turns in order to turn left onto Valleydale Road and Cahaba Beach Road.

Contractors are scheduled to begin the process of converting the intersection at 7 p.m. Thursday, with changes complete by 6 a.m. Friday, ALDOT spokeswoman Linda Crockett said.

The new intersection pattern was to open Wednesday but rain during the weekend delayed construction, ALDOT Third Division Engineer Brett Sellers said.

The **change is another step in ALDOT's more than $15 million overhaul of traffic patterns along nine miles of the U.S. 280 corridor**. Other changes have included a camera-based network of traffic signals and added turn lanes.

The new pattern

The theory behind the pattern shift at Valleydale/Cahaba Beach is to take away the time needed to stop traffic and allow drivers to turn left off the highway.

That time then goes to the predominant flow, which is eastbound and westbound traffic on U.S. 280, Sellers said.

Here is an animation of a similar median U-turn based on the same concept:

Drivers still will be able to make right turns from U.S. 280 onto Valleydale and Cahaba Beach roads.

Drivers on Valleydale and Cahaba Beach can still cross the intersection.

(**View a larger graphic of the following maps**.)

The new westbound U-turn for turning left onto Valleydale Road. Blue areas show where new pavement as been added.
Courtesy of ALDOT

U.S. 280 westbound: To make a left turn onto Valleydale Road, drivers must go through the intersection and merge to the double left U-turn lanes.

There are two U-turn lanes, with the outside lane to help heavy trucks and buses to negotiate the turn.

Once the eastbound lanes are stopped by a traffic signal, westbound drivers can make the U-turn. A turnout "bulb," or an area to help vehicles make the turn, has been built into to the side of the highway.

Drivers must then merge into the single right lane to turn onto Valleydale.

The new U.S. 280 eastbound U-turn for making left turns onto Cahaba Beach Road. The outside U-turn lane can also be used to enter the PetSmart shopping center. Blue areas indicate areas where pavement has been added.
Courtesy of ALDOT

U.S. 280 eastbound: To make a left turn onto Cahaba Beach Road, continue through the intersection, merging into the left lanes to prepare to enter the double turn.

Again, the outside lane can be used by heavy trucks and buses, also drivers wanting to enter the parking lot for PetSmart and TJ Maxx.

Once westbound traffic stops, eastbound drivers can make the U-turn.

Drivers in the outside lane can turn or continue into the shopping center parking lot. All drivers turning onto Cahaba Beach Road must first merge into a single right turn lane to do so.

The Valleydale/Cahaba Beach intersection changes are part of the second phase of traffic changes along U.S. 280.

The **first phase went into effect in August** west of Interstate 459, including a U-turn at Overton Road, a series of indirect turns and removed traffic signals.

ARIZONA ARTICLES

Two 'indirect left turn' intersections will be ready for traffic - Tucson News Now

By Barbara Grijalva - bio |
email

Two 'indirect left turn' intersections will be ready for traffic in September

Posted: Aug 28, 2013 5:57 PM MDT Updated: Sep 11, 2013 6:13 PM MDT

TUCSON, AZ (Tucson News Now) -

The shape of things to come is taking shape at some Tucson intersections.

Expect a learning curve for drivers.

Sooner or later you will make an indirect left turn.

So-called indirect left turns or Michigan Lefts are going in right now at two area intersections.

They are Ina and Oracle on the northwest side, and Grant and Oracle in midtown.

Traffic planners contend it's safer and more efficient.

The way planners want us to remember it is with a little poem.

It's on fliers around town.

"Go through.

Make a U.

Then right at the light."

A lot of motorists are a little confused about how it will work.

"It'll have to be explained or with correct signs, I think, so people know how to use it. And apparently it's worked in other cities so we'll see how it's going to work here," says Tucsonan Elin Rose.

With construction still in full swing at the two intersections, it might be hard to imagine how this indirect left turn will work.

But, yes, there will be signs and other ways people can learn to navigate the new intersections. See an animation here.

With the indirect left turn, motorists going east and west can't turn left at the intersection.

They go through it to a traffic signal that stops oncoming traffic so they can make a U-turn, double back to the intersection and make the turn.

Here's another animation.

If all goes according to plan, there should be fewer accidents.

"We're going to be reducing the congestion. It's going to improve the safety of the operations in terms of less accidents because there are fewer points of potential crash locations," says Pima County Transportation Director Priscilla Cornelio.

"But I think one of the biggest things, as I said, the safety improvement and the reduction in congestion. So people, again, their wait times will be reduced considerably. About 40%," Cornelio adds.

That's at the intersection of Ina and Oracle where Cornelio says less congestion will make it easier to get in and out of business parking lots near the intersection.

She says about 96,000 vehicles a day go through the Ina/Oracle intersection.

Expectations also are high for the intersection of Grant and Oracle.

Eventually widening work will add six indirect left turns on Grant, from Oracle to Swan Road.

They will be at Oracle, First Avenue, Campbell, Country Club, Alvernon and Swan.

"It'll be more efficient for the east-west travelers--the traveling public, motorists. It'll be safer for pedestrians and it'll be safer for bicyclists," says City of Tucson Spokesman Mike Graham. "Certainly safer because we see anywhere from a 20 to 20 percent reduction in collisions at an intersection. Typically, the collisions that occur at an intersection are that left turn into the through lane."

The indirect left turn intersections on Grant Road will have special spots just for bicyclists to make a left.

And, no left turn arrow means more time under the green light for people going straight.

City and county planners believe it all will run smoothly once we get used to it.

"I think I would like the idea of what it's supposed to do, especially to make a left turn. There's a lot of traffic here and I've gotten hit here actually," says Tucsonan Carolyn Olivas.

The construction is being done through the Regional Transportation Authority voters approved in 2006.

The Ina and Oracle intersection is set to open next week.

Cornelio says the county will assess the intersection at the six-month point to see if the intersection has helped reduce the number of traffic accidents.

Grant and Oracle will open later in September.

Tucson gives the green light for second indirect turn lane

By Barbara Grijalva - bio |
email

Posted: Oct 21, 2013 11:07 PM MDT Updated: Nov 04, 2013 11:07 PM MST

TUCSON, AZ (Tucson News Now) -

Another Tucson intersection is about to change the way you make some turns.

Beginning Tuesday at 6 a.m., indirect left turn lanes go into effect at Grant and Oracle, meaning if you want to make a left turn off of Grant, you'll have to do a little more driving.

Crews will work through the night, putting up signs and doing some last-minute construction before the indirect left begins.

There will be no more left turns off Grant onto Oracle.

You will drive through the intersection, make a U-turn, then turn right onto Oracle.

When this intersection becomes an indirect left intersection at 6 a.m. Tuesday, it will be the second one in the Tucson area.

The first one at Ina and Oracle opened several weeks ago.

Business owners in the area have said they like it because it gives their customers better access.

However, a motorist today wanted to comment on the whole idea of indirect lefts.

He not only drives the Ina/Oracle intersection every day; he lives near it. He says traffic still backs up and it has meant more stop lights for him and other drivers.

Plus, he's concerned that trying to change driver behavior might not work.

< Chuck Schoen, Tucson Driver: "I've got a camera that I keep in my car and I've seen three accidents already at Oracle and Ina," said Tucson driver Chuck Schoen. "[People] trying to make left hand turns and got rear-ended. And every night I hear sirens up there, whether it's accidents or not-- It's going to take a long time especially with snowbirds coming into the community. They're going to have a real problem with not being able to do left hand turns."

We're told that for the first two weeks, Tucson Police will be handing out warnings to people who make an illegal left turn off of Grant.

Both Pima County and the city of Tucson will be analyzing their indirect left turn intersections to see if they actually are safe and do move traffic through more quickly.

Those are the two major goals.

"I think we have multiple goals," Assistant Tucson City Manager Albert Elias said. "I think one is to reduce delay for motorists. One is to make sure that turning movements are safer and then also making sure that pedestrian and bicyclist movements are safe. So we operationalize the intersection, we are going to have to monitor that.

TUCSON (KGUN9-TV) - On Tuesday morning, the second indirect left turn comes to Tucson at Grant and Oracle roads. The turn will affect 67,000 commuters who pass through the intersection every day.

The first indirect left turn opened at Ina and Oracle more than a month ago. Before any more pop up in the area, Nine On Your Side broke down the numbers to figure out if indirect turns are actually helpful, or just a headache.

The traffic report at Ina and Oracle is in: Pima County Department of Transportation said it used to take drivers four light cycles to get through the intersection. Now, with the indirect left turn, they say nearly all drivers can clear the intersection every time the light turns green.

"That's something we've seen firsthand," said Sherry Barnett of Northwest Pet Clinic.

The clinic is located right next to the intersection. Barnett said that before the indirect left, rush hour was a mad dash.

"We would hear all kinds of honking of the horns and obscenities," she said.

But now, she said it's smooth sailing.

Not everyone agrees, including the makers of a YouTube parody on the indirect left turn at Ina and Oracle. Many are frustrated by the time it takes to maneuver through the indirect left turn, but the county said it will only get faster in time.

They say ADOT is working to time the lights so that even though you have to go through three intersections to complete the maneuver, you should only hit one red light.

Along with improving travel time, the county said the indirect left turn is supposed to also reduce accidents, but that it's too early to measure those statistics.

The city predicts that at Grant and Oracle, the indirect left turn will reduce travel time by 42 percent and crashes by 15 to 30 percent.

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Oct 22, 2013 1:30 AM by **Rebecca Taylor**

Indirect left turn at Grant and Oracle takes effect

TUCSON - An indirect left turn, have you made one yet? They've been installed at two major intersections in Tucson, Ina and Oracle on the northwest side, it's been operating for a few weeks now. And starting Tuesday morning at six, Grant and Oracle. Drivers wanting to make a left hand turn on Grant will now go through the intersection, make a U turn, than a right at the light. They're known as indirect left turns, or Michigan lefts. Motorists have mixed opinions about their use in Tucson. Sandy Chambers says "I don't like it. If you're going to turn left you should turn left." It's confused me so much, that I'm turning into the medical center, I did it today, then I had to U Turn and go back," says another driver, "So it's part of learning." George Seils says, "I think it's the most idiotic thing ever invented, why would we take advice from Michigan?" As drivers steered through months of construction, some businesses felt the impact. At Casas Adobes Plaza where the indirect left turn has been in effect for about a month, some shops say they continue to lose business. They say customers are having trouble accessing their parking lot. While sales reps at other businesses say their clientele stayed loyal, keeping sales up. Robin Jelks says, "They'll find a way to come to the plaza no matter what, so we're lucky to have a good loyal following." Her co-worker Bianca Yanez adds, "They complain a little bit here and there, but they're still coming to the plaza, which is good." Change isn't easy, but the city hopes drivers will see the long-term value of indirect left turns; reducing wait time at intersections by 42% and injury crashes by 30%. "It will take some getting used to, but I think it's good," says a driver, "The traffic was backed up, for gosh, 60 cars. So it's okay, I'll live with it." The project at Grant and Oracle was behind schedule by one month.

Road Runner: Indirect left to start Tuesday at Grant, Oracle roads; more planned

By Joe Ferguson

Road Runner

October 21, 2013 12:00 am •

There is a surprise waiting for commuters using Grant Road on Tuesday.

Another Michigan Left, which has earned the scorn of many drivers on the northwest side, is scheduled to come on-line Tuesday at the intersection of North Oracle and East Grant roads .

For the uninitiated, an indirect-left turn requires drivers on Grant to go through the Oracle intersection to the next stoplight — one block down — where they can make a turn-arrow-protected U-turn before doubling back to Oracle and making a right turn.

The news gets worse for Grant Road commuters with long-term plans to stay here in Tucson.

A total of six, maybe seven, Michigan Lefts are planned for the corridor between Oracle and Swan roads.

Regional Transportation Services Director **Jim DeGrood** offers a single ray of hope for those who think replacing one left turn with a series of turns isn't a good idea.

It will be two to three years before the next one comes online.

The next three intersections — Grant at Stone Avenue, Grant at First Avenue and Grant at Alvernon Way — are still on the drawing board.

It could take years for all necessary steps from design to securing the necessary right-of-way before the city and the Regional Transportation Authority are ready to begin construction.

The $2.1 billion, 20-year RTA plan calls for six indirect-left turns along Grant — at North Oracle, Stone, First, Campbell Avenue, Country Club Road and Alvernon Way.

The city has similar plans for Swan-Grant intersection, DeGrood says, but funding for this Michigan Left havs not been identified.

Traffic engineers say this type of intersection is valuable in keeping traffic moving through busy intersections, as it eliminates the time traffic is stopped in both directions to allow a handful of drivers to turn left.

One last tidbit for those living or working near the "Boneyard" at the Davis-Monthan Air Force Base — DeGrood says the RTA board is considering a Michigan Left turn at a rebuilt intersection at Kolb and Valencia roads .

He says a Michigan Left is one of several possible designs as the regional transportation board considers its options.

Ina and Oracle intersection implements indirect left turn, confusing drivers

Chris Flora, The Explorer | Posted: Wednesday, September 18, 2013 4:00 am

The “Michigan left” has made its way to Tucson.

Following the completion of a $5 million project by the Pima County Department of Transportation in conjunction with the Regional Transportation Authority and Arizona Department of Transportation, motorists can no longer make a left-hand turn from eastbound Ina Road onto northbound Oracle Road or from westbound Ina Road onto southbound Oracle Road.

Travelers attempting to make said turns are instead being rerouted through the intersection to newly installed traffic lights, at which point they will make a U-turn and then turn right onto Oracle Road.

Annabelle Valenzuela, program manager of the Pima County Department of Transportation, says the county initiated the project more than three years ago to address safety concerns that have come with the growing amount of traffic at the intersection.

About 96,000 motorists travel through the intersection per day, she says, which is the seventh highest in the region. That number is expected to swell to 126,000 vehicles per day in the next 20 to 30 years with the anticipated growth of Oro Valley, Catalina, and surrounding areas.

A similar project is being completed at the intersection of Oracle and Grant roads.

The hope with the new indirect left, otherwise known as a “Michigan left” for its popularity in the northern state, is to increase safety by improving traffic efficiency and reducing the total number of car crashes.

Bob Roggenthen, Pima County project manager, says the new layout will prevent common head-on collisions that come in the intersection during left-hand turns.

Also, adds Roggenthen, pedestrians will have to monitor traffic from fewer directions with the left hand turns eliminated.

While some of the kinks are still being worked out, Roggenthen says the most common problem in the intersection is motorists disobeying the new traffic laws.

“We still have people trying to turn left at the intersection,” he said. “It doesn’t seem to be a problem when there is a lot of traffic, but when the traffic dies off – which is becoming more common with the new construction – people try to make the left turn still, which is obviously against the law.”

New electronic signs using LED technology will soon be installed to remind travelers that no U-turns or left-hand turns are allowed from Ina Road.

Along with safety enhancements, Roggenthen expects a 40 percent increase in intersection efficiency.

Much of that has to do with the fact Ina Road will now have two designated right turn lanes leading to northbound Oracle, he says.

The project was initiated by Pima County based on engineering and traffic studies, and funded by the Regional

Transportation Authority using public money.

The county decided to act after ADOT stated it had no plans to upgrade the intersection.

Still, ADOT had to give approval since the project involves Oracle Road, a state highway under its jurisdiction.

“Once the concept was approved by Pima County, ADOT, and the RTA, the project team held neighborhood and business meetings to review the concept and to address neighborhood and business concerns,” said Priscilla Cornelio, director of Pima County Department of Transportation.

Due to the three closely positioned jurisdictions in the area, should a collision occur, the responding jurisdiction will vary.

Lt. Kara Riley, spokesperson for the Oro Valley Police Department, says if an accident occurs within the intersection, it is the responsibility of the Arizona Department of Public Safety (DPS), while if it occurs west of the intersection on Ina Road between Oracle Road and Paseo Del Norte, the Oro Valley Police Department would answer the call.

Vehicular incidents east of the Oracle and Ina intersection would fall under the jurisdiction of the Pima County Sheriff’s Department.

Road Runner: Illuminated signs help direct traffic at intersection of Ina, Oracle

By Jamar Younger

March 31, 2014 12:00 am •

It appears motorists on West Ina Road have gotten used to the fact that they can't make direct left turns onto North Oracle Road anymore.

However, if they forget, there is a bright, illuminated, red-and-white reminder telling them to keep straight and make a U-turn at the next stoplight before doubling back to Oracle — part of the "Michigan" indirect left turn at the intersection.

The "no left turn/no U-turn sign,'" which illuminates when the light turns green for Ina drivers, is unique because it's the only lighted traffic sign in the unincorporated area of Pima County.

The signs were installed in October, about a month after the intersection was converted to the Michigan left turn, said **Priscilla Cornelio**, director of the Pima County Department of Transportation.

The county waited about a month to install the signs because of ongoing construction and traffic detours at the time, she said.

The signs are rare, but not new to Tucson streets.

The county had a similar device at East Ajo Way and South Palo Verde Road warning drivers not to make right turns on a red light at the intersection.

County transportation officials removed the sign last August because traffic violations decreased, indicating drivers had gotten used to the restrictions, Cornelio said.

Right turns are still prohibited at the south-side intersection, but standard metal signs now inform motorists of this rule.

The county installed the lighted signs at both intersections because motorists encountered some uncommon restrictions in those areas.

"Our indirect left turns are not standard and the prohibition of right turns on red is also not standard," she said.

Cornelio noted that Ina and Oracle has the only indirect left turn in the county.

The old and new signs cost about $6,500 each.

The intersection at Oracle and West Grant Road in the city limits has the same Michigan left turn, but there are no lighted "do not turn here" signs at the intersection.

“Our guys said they wanted to make sure people saw it,” Cornelio said, referring to the Ina and Oracle sign. “They wanted to make it different and make it stand out.”

Overall, county officials have credited the Michigan left turn, as well as an expanded right turn from westbound Ina onto northbound Oracle, with reducing traffic congestion at the intersection. Traffic along that portion of Ina has increased by 7 percent within the past two years, Cornelio said.

”If we wouldn’t have done the left turn, the delays would’ve been much worse.”

azstarnet.com
http://azstarnet.com/news/local/govt-and-politics/five-questions-about-the-new-oracle-ina-intersection/article_90e02e51-98ec-5d91-a713-0511e9423577.html

Five questions about the new Oracle/Ina intersection

By Joe Ferguson

Northwest-side drivers are adding a new term to their vocabulary this week — the Michigan left.

Over the last two days, Pima County started requiring drivers on West Ina Road to make what is also called an indirect left or “Michigan loony” onto North Oracle Road.

The Michigan left requires drivers to go through the Oracle intersection to the next stoplight — one block down — where they can make a turn-arrow-protected U-turn before doubling back to Oracle and making a right turn.

It’s the first intersection of its type for Tucson but not the last. A similar intersection is planned for West Grant Road and Oracle when that project is finished in a month or so.

Priscilla Cornelio, the director of the Pima County Department of Transportation, responded to questions about the new intersection, which is common in Michigan.

Q: Who made the decision on the intersection?

A: Multiple agencies were involved.

The Pima County Department of Transportation recommended the indirect-left concept based on engineering, traffic and safety studies as a way to respond to congestion at the intersection.

The Arizona Department of Transportation had to agree, because Oracle is a state highway.

And the Regional Transportation Authority provided the funding.

Once the three governments agreed on the concept, meetings were held with neighbors and affected businesses to address their concerns.

Q: How long has this proposal been under consideration?

A: Over three years.

Q: What were the main reasons for choosing this traffic measure?

A: Because Oracle Road is owned by the state, improvements had to be made to Ina Road to address this heavy congestion, long delays and safety issues. This alternative worked the best.

The other alternative was to do nothing, because ADOT had no plans to improve Oracle Road at Ina.

Q: How much traffic goes through the Ina-Oracle intersection in a day?

A: About 96,000 vehicles daily.

Q: How much did it cost to reconfigure the intersection?

A. About $5 million.

insidetucsonbusiness.com
http://www.insidetucsonbusiness.com/opinion/columnists/guest_opinion/express-left-will-make-intersections-safer-more-efficient/article_3ab56aa2-3422-11e2-8077-0019bb2963f4.html

GUEST OPINION 'Express left' will make intersections safer, more efficient

By James R.
DeGrood

The Grant Road and Oracle Road intersection project now under construction will introduce area drivers to indirect "express left" turns, though indirect left turns already are familiar to area drivers who make U-turns at medians in major roadways to access businesses or side streets on the opposite side of the road.

Once the Grant-Oracle project is complete, drivers on Grant Road wanting to turn left onto Oracle will go through the intersection to a signal, make a U-turn at a new, dedicated U-turn signal, return to the intersection and turn right. While this may seem an inconvenience to those drivers wishing to make a left-turn, there are compelling reasons for this change in intersection operation.

Studies by the federal government and major universities have shown that left turns at major intersections are among the most common causes of crashes on America's roadways. The two most frequent are collisions involving turning vehicles and vehicles entering the intersection from the opposite direction, along with rear-end crashes involving vehicles in the left turn lane. These types of accidents have been significantly reduced at intersections with express left turns, compared to the left-turn intersections they are replacing here and in other metropolitan areas.

Left turns at heavily traveled intersections are also a major contributor to traffic congestion. Removing left turns at busy intersections results in significantly improved traffic flow, greater capacity and will allow for better synchronization of traffic signals in the region.

Neighborhoods near these express left-turn intersections benefit because a smaller footprint is required to build them than many alternative designs.

Pedestrians and cyclists benefit from having a shorter crossing. And there will be crosswalks with signals at each of the U-turn medians.

The amount of time drivers spend backed up at intersections will be reduced. It is not uncommon for vehicles to wait for several traffic lights to make left turns or simply get through a major intersection. Express lefts will not only help lessen motorist aggravation, it will also produce measureable reductions in fuel consumption and vehicle emissions.

Express left turn intersections are planned for many of the major intersections in the Grant Road reconstruction project in the Regional Transportation Plan that was approved by voters in 2006. Besides Oracle, these include Stone Avenue, First Avenue, Campbell Avenue, Country Club Road, Alvernon Way and Swan Road.

Other major intersections across the Tucson region will likely get this type of treatment. The heavily used intersection at Oracle and Ina roads also will be reconstructed as an express left turn intersection and may be completed at about the same time as Grant-Oracle.

The Tucson area is not unique in the adoption of new intersection designs. Across the nation, a number of alternative intersection designs are offering solutions to the problems posed by heavy turn movement demands at major intersections.

A publication by the Federal Highway Administration drew on several studies of such median U-turn intersections and

reported that the simple elimination of direct left turns results in reductions of 20 to 50 percent of head-on and angle crashes at intersections.

A study by North Carolina State University of several variations of restricted left-turn intersections found that all proved safer and more efficient than those without such restrictions.

A University of Toronto study found that about 40 percent of accidents involving pedestrians and motor vehicles occurred at intersections. Left turning vehicles accounted for the most accidents involving pedestrians, with the exception of vehicles passing straight through intersections.

Based on experiences from communities already using express left turn intersections, we expect to see positive impacts like these:

• Reductions of all crashes at these intersections of at least 16 percent.

• Reductions of crashes causing injury of about 30 percent.

• Reductions in motorists' time wasted sitting at traffic signals express left intersections of 42 percent.

• Fuel savings due to shorter waiting times of at least 9 percent.

The express left turn intersections being developed on Grant Road and other corridors around our region and state will be different, but they will be well signed so drivers will know how to use them.

James R. DeGrood, PE, is the director of transportation services for the Pima Association of Governments' Regional Transportation Authority.

Drivers ignoring indirect left turn could get pulled over

TUCSON (KGUN9-TV) - The 'indirect left turn' has been active at Ina and Oracle roads for nearly a week, but countless drivers still haven't gotten the hang of it.

Some drivers just aren't seeing the signs, and left-turn offenders are adding up. Pima County Sheriff's deputies are on the case, but they're giving drivers a break -- for now.

"Right now they're just giving warnings until the construction is complete," Deputy Jesus Banuelos said. "It gives people time to really pay attention to the signs and get accustomed to the new turn."

But if drivers continue to cheat the indirect left, those warnings could become tickets.

Tucson drivers will have to get used to it: The indirect left turn is popping up all over town in the next 10 years. Here is where they will be:

2013: Ina/Oracle & Grant/Oracle
2016: Stone/1st
2017: Swan/Grant & Alvernon/Grant
2021: Grant/Campbell
2022: Grant/Country Club

"It's going to take some time and we understand that people are so used to making that left turn here," Banuelos said. "But if you just pay attention to the sign and actually go with the flow of traffic..."

Deputies and the transportation authority expect congestion and accidents will go down.

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GEORGIA ARTICLES

By Ashley Hungerford
ahungerford@mdjonline.com

MARIETTA - Residents welcomed a plan to widen a portion of Barrett Parkway in northwest Cobb, but a proposal to change the intersection of Barrett and Burnt Hickory Road is meeting resistance.

The Cobb Department of Transportation is planning a $34.8 million project that would widen a 4.6-mile stretch of Barrett Parkway between Cobb Parkway and Dallas Highway, and also change the way people navigate the intersection with Burnt Hickory.

Motorists heading north and south on Barrett Parkway would no longer be allowed to turn left onto Burnt Hickory. Instead, motorists would travel about 900 feet away from the intersection, continuing up Barrett Parkway, and make a U-turn.

A special "half" traffic signal would assist drivers attempting to make the U-turn by stopping traffic along Barrett Parkway. The light would be in coordination with the light at Burnt Hickory so both lights would not stop motorists continuing on Barrett Parkway to make a U-turn.

For a video simulation of the intersection improvements, visit http://dot.cobbcountyga.gov/public-meeting.htm . Direct download...http://www.ecstreams.com/CobbCo/wma/barrett-pkwy-left_wmv.asx

The Journal's Web site received dozens of comments from readers confused about a proposed U-Turn.

"This is asinine," one reader wrote. "A U-turn would not be effective since you would have to cross three lanes of traffic to make a right turn. I foresee many accidents if this comes to pass."

But Bob Galante, engineering division manager for Cobb DOT, said the indirect left is a good solution for the intersection.

"The intersection is extremely congested," Galante said. The current traffic count for the intersection is 46,000 cars a day. In 2030, it will be 54,600 cars a day, Galante said.

As it stands, the average delay for cars to get through the intersection during peak rush hour periods, heading in all four directions, is 205 seconds. With the proposed indirect lefts, it would be reduced to 84 seconds.

Galante said the DOT considered improving the traditional left turn at the intersection, but it only reduced the average delay to 133 seconds.

"That is not enough of an improvement," he said. "The indirect lefts are the most cost effective option and least disruptive to the area."

The costs associated with a direct left would add an estimated $20 million to the project because of what Cobb DOT would need to do to other nearby intersections, he said. Both Mt. Calvary and New Salem roads, which intersect with Burnt Hickory near Barrett Parkway, would have to be adjusted.

Indirect lefts have been used in at least five other states, and are commonly called "Michigan lefts," Galante said.

This would be the first of its kind in Cobb.

The fear of the unknown is why Commissioner Helen Goreham thinks some people are opposed to the project.

"This is a lot like the roundabout at Villa Rica and West Sandtown," she said. " When it was first proposed, there was

a small population that was upset about the new approach. But we've received nothing but positive comments since it opened."

Goreham said she believes that once people became familiar with the new intersection approach then they'll find that it works.

"I'm open to new approaches," she said. "I wouldn't be going forward with it if I didn't believe in it. I really believe it will make a difference on the flow on Burnt Hickory."

On Sept. 9, Cobb DOT held a public comment meeting on the project.

Galante said they got 39 responses in favor of the project, 21 against and 9 uncommitted.

Of those against the project, Galante said the majority of concerns were about the increase in noise, speed, safety and the buffers. He said a few of the responses involved the U-turn.

Cobb DOT does not have any additional public hearings on the project planned.

Goreham said she believes the recent uproar about the project stems from the Marietta city council meeting in December during which several council members questioned the project.

During the meeting, Mayor Bill Dunaway said the intersection change didn't make any sense to him, and Councilman Van Pearlberg said he believed the person who devised the plan "might be on drugs."

Goreham said she believes once all involved become more familiar with the indirect lefts, they'll be on board with the project.

"The key to everything is education," she said.

Galante said studies back the safety benefits of the indirect lefts because they reduce the number of traffic accidents at the intersection. In 2005, there were 184 accidents on Barrett Parkway, and in 2006 there were 192.

The project is being funded by the county's 2005-special purpose local option sales tax. Because portions of the project are in several of the cities, the city of Marietta is paying $2.08 million of the project, while Kennesaw is paying $520,000. The remainder is coming from the county.

Construction of the intersection is set to begin in July 2009, with completion scheduled for July 2010.

The widening of Barrett Parkway will begin in Aug. 2010, with completion scheduled for August 2012. Current plans also included a multi-use trail between Stilesboro and Cobb Parkway. The trail will be tied into the future Noonday Creek Trail.

Cobb Looks North for Traffic Flow Innovation

From the *Atlanta Journal-Constitution* (Kent A. Miles)

Cobb County transportation officials are turning to a Midwestern innovation to relieve congestion at Burnt Hickory Road and Barrett Parkway.

The indirect left turn is familiar to drivers in metropolitan Detroit, where the lanes were first created in the 1960s. Cobb County's Department of Transportation will install the median-crossing lanes on Barrett Parkway near Burnt Hickory Road as part of some $34.8 million in improvements to nearly five miles of Barrett Parkway — which will also be widened from Dallas Highway to North Cobb Parkway.

Construction on the project is expected to begin in September 2010.

Left turns onto Burnt Hickory Road would be prohibited. Instead, drivers will continue 900 feet to make a U-turn at a signaled median crossover, then continue on Barrett in the opposite direction before turning right onto Burnt Hickory Road.

Cobb DOT engineers said the indirect left turn is the most cost effective and least disruptive solution for the intersection, where three-minute waits for drivers turning left off Barrett Parkway are routine.

The lanes would be the first to be built in Georgia, and another effort by the county to address traffic congestion with unconventional means. In November, the county's first roundabout opened to improve traffic flow at the intersection of West Sandtown and Villa Rica roads.

County Commissioner Helen Goreham, whose west Cobb district includes Barrett Parkway, said consituents have e-mailed her about the delays at the intersection in past years. "I believe it will make a positive difference," she said.

The indirect left turns were first built in the 1960s and are also called Michigan lefts. Rob Morosi, a Michigan Department of Transportation spokesman, said reports of accidents typically identified with left turns, such as head-on collisions, fell over time 30 to 60 percent at indirect left intersections.

"The Michigan lefts were designed so people didn't take chances on the yellow lights," particularly roads with high traffic volume, Morosi said.

Barrett Parkway more than fits the requirement. Over 46,000 vehicles daily use the road, a main artery to I-75 and I-575. Census figures show that more than 42,000 people live in the area that includes the intersection.

The county is paying for the project with funds from a sales tax increase approved by voters in 2005. The cities of Marietta and Kennesaw will contribute, respectively, $2.08 million and $520,000 to the project.

Plans for the project also include intersection improvements at Stilesboro Road and Old Highway 41, and a multi-use trail where motor vehicle traffic would be prohibited.

INDIANA ARTICLES

Fishers introduces Michigan Left at Allisonville Rd. and 96th St - 13 WTHR Indianapolis

Fishers introduces Michigan Left at Allisonville Rd. and 96th St. Monday

Posted: Mar 03, 2013 9:57 PM MST Updated: Mar 04, 2013 7:18 AM MST
FISHERS -

On the north side of Indianapolis, there is one topic, particularly in the Castleton Square area, that will usually get people talking - traffic.

Because of the traffic, Castleton is often called "Hassle-ton."

In the past year, the Indiana Department of Transportation has finished the Allisonville Road overpass south of the mall. Now the Town of Fishers is taking the first steps in to introduce Indiana drivers to the Michigan left at 96th Street north of the mall.

Orange construction barrels have been in place in and around the intersection of 96th and Allisonville for so long that it's hard to remember why they are there in the first place. The digital message board warning of the impending traffic pattern change on Monday March 4th delivers drivers a reminder.

The change in the traffic pattern is really a change in driving technique. The Town of Fishers will open the first Michigan Left intersection in Indiana.

A Michigan Left was explained in layman's terms by an engineer-in-training who did not offer his name before driving away. But he told us, "A Michigan left is basically when you go past the light, no left-hand turn," he said. "And about 150 feet after the light, there is going to be a signal to indicate where you basically make a U-turn into the road over there, and hang a right."

Drivers heading east on 96th Street from the White River who plan on turning north toward Fishers on Allisonville Road typically make a left hand turn from the left turn lane.

But Monday afternoon, in order to turn left, you will first have to turn right, go about 150 feet south on Allisonville Road to a special designated turn lane. There, traffic lights will guide the motoring public into a U-turn and lead drivers north onto Allisonville Road.

When the intersection is fully functional sometime in mid May, Fishers engineers and traffic analysts are hoping the Michigan Left will move traffic away from the intersection and, in theory, make room for other cars and ease congestion.

But it's a Michigan Left, not an Indiana left hand turn.

And our unnamed engineering student suggests the new pattern could be the source of traffic issues, " It is odd. I don't think people get the hang of it in general. It is supposedly more traffic-efficient."

Another driver from Fishers told Eyewitness News he likes the idea but also admits a Michigan Left will take longer than a New York minute to be accepted by Indiana left-lane-users. "It is awkward, there is no doubt about that."

He predicted the adjustment would be similar to how drivers learned to drive the roundabouts that now control traffic ir many Hamilton County intersections, "When all of that stuff is brand new, nobody knows what they are doing. So it is

going to be very strange not being able to make a left turn."

It will take some time for drivers to get used to the idea of going in the opposite direction in order to go in the right direction.

First median U-turn opens in Fishers at 96th Street and Allisonville Road

Tanya Spencer , TheIndyChannel.com
Staff

FISHERS, Ind. - There's a new traffic pattern at a busy Fishers intersection, and it's the first of its kind in the state.

The first of four median U-turns opened at the intersection of 96th Street and Allisonville Road on Monday afternoon.

The alternative route will disable the left-turn lane from east 96th Street to north Allisonville Road.

Drivers on 96th Street headed north on Allisonville Road will turn right onto Allisonville into the left lane and make a U-turn at the median signal. Once through the intersection, drivers may continue north.

Town Manager Scott Fadness said the new traffic pattern will reduce the current three-minute left-turn wait time at the intersection.

"It actually pulls all those people who were in queue in the left turn out of the way of the intersection for those people who are going straight through. So you have a lot more green time at the intersection," he said.

But some drivers aren't so sure.

"That's awful," said driver Jackie Turner. "I'm not sure how they think that's the best option."

"It's going to be a nightmare, an absolute nightmare," said driver Ron McDuffy. "I think this is going to be a huge mistake. I just see a lot of accidents happening here. I just don't get it."

All traditional left turns from other directions will be permitted until the next median U-turn phase is complete.

Two additional median U-turns will open in April, with the final phase opening in May.

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Allisonville Road and 96th Street U-turns: For better or for worse?

by admin

Jeff Hill, director of engineering for the Town of Fishers, said “the feedback has been positive; people are saying ‘boy, I can really get (to my destination) quicker now, the reduced congestion is definitely there’; this was one of our goals.” (Photo by Anya Albonetti.)

Two months have passed since construction at the intersection of 96th Street and Allisonville Road has been completed. Since then, drivers have been using the median U-turns in place of left-hand turn signals at each corner.

The project was designed to reduce accidents and wait time at traffic lights, especially during peak rush hour times, while improving overall service.

Now the question up for debate is: Has the recent change improved the problems?

According to Jeff Hill, director of engineering for the Town of Fishers, the answer is yes.

“The feedback has been positive; people are saying ‘boy, I can really get (to my destination) quicker now, the reduced congestion is definitely there’; this was one of our goals,” Hill said. “There are a handful of people who have contacted us and said ‘I thought there was no way this would have worked before’; we’ve got a handful of converts.”

The 16-phase, locally-funded $8,000,000 project began in April 2012 and concluded in August. The town researched a variety of options to improve traffic at the intersection and decided to pursue the implementation of median U-turns as the most cost-effective and minimally invasive for existing businesses and the environment, according to Hill.

The project has often been dubbed “Michigan Left,” due to the frequent usage of median U-turns along roads and highways in Michigan since the 1960s.

Perhaps the biggest challenge since the project’s completion has been confusion among drivers who may not be paying attention to signals directing them to where they can or cannot turn, resulting in crashes.

Chelsea Atwell, a server at Café Du Meemo, 9642 Allisonville Rd., said she has seen a number of accidents due to people ignoring the no-left-turn signs.

“I think people haven’t been here in a while and don’t know what’s going on,” she said. “It’s the first time they’ve seen this.”

Hill said that 99 percent of the time, drivers are not afraid to honk their horns to alert a driver attempting to turn left where they shouldn’t. He added that the town has been trying to educate those who are unfamiliar with the new system.

“The police have been a pretty good presence (at the intersection) and have been fairly forgiving in the beginning,” he said. “We are pointing people to the town’s website.”

The Drive Fishers Website, www.fishers.in.us/index.aspx?NID=381, includes a video that explains how to successfully make a left turn movement.

Some businesses along the intersection, including CVS Pharmacy, 9550 Allisonville Rd., have reported that their business has not been affected by the new system.

Store manager of CVS, Victoria Lobb, acknowledged that while business slowed during construction, “we’re getting back to normal.”

However, others including store manager Moe Patel of Subway, 9546 Allisonville Rd., have stated that their business has suffered significantly.

“We’ve been losing a lot of business,” Patel said. “We used to have more customers; now they have to make a U-turn and then have to stop four times (to get here). This place is dead. Some businesses are OK, some are dead.”

As for residents like Velda Qualkenbush, several have said they still do not see the advantages to the project and find the system confusing.

“In my opinion it was a tax dollar waste,” Qualkenbush said. “I still do not see how it helped traffic flow.”

Hill acknowledged that while he understands the community as a whole may not entirely be on board for the new project, he thinks they may have a change of heart after witnessing the advantages.

“There are people on the opposite side who still think ‘This is dumb; why do I have to turn right to go left?’ We try to explain the overall reduced time (by using the U-turns). As they continue to drive, they’ll see (the system) is working for them.”

TEXAS ARTICLES

The city that U-turned on its U-turn plan (Traffic Mike, poll)

Mike D. Smith | msmith@al.com By **Mike D. Smith | msmith@al.com**
Email the author | **Follow on Twitter**
on July 12, 2013 at 5:46 PM

So it's on or before Aug. 5 -- partly, anyway.

That is the intermediate deadline for a portion of the U.S. 280 changes between Cherokee Road and Green Valley Road. (**The rest of the project could take until late November.**)

Drivers will get a glimpse of what lies beyond all the construction barrels, narrower lanes and rumbling grooved pavement -- including the "indirect turns."

Those are where drivers entering the highway must turn right to eventually go left, borrowing from the "Michigan Left" concept.

Plano, Texas has been there and done that. After three years and sustained outcry from the public, they won't do it again anytime soon.

City council in the Dallas suburb of 270,000 recently voted to undo the redo of one of its most congested intersections, despite the city's contention that it worked, especially as more people got used to it.

There, Legacy Drive and Preston Road feed about 102,000 vehicles per day into their junction, creating a mathematical dilemma said Lloyd Neal, the city's transportation engineering manager.

Studies showed 7 percent of the drivers taking left turns took up 30 percent of the traffic signal cycle. Gridlock and frequent crashes resulted, he said.

They needed to balance that time and brace for growing traffic volumes. Adding lanes was considered, as was building an overpass before settling on the idea of a median U-turn as the best, cost-effective method.

"We were expecting quite a bit of quandary about 'How does it work?' and 'How do I drive through it effectively?'" Neal said.

Plano did a two-month public education blitz with any groups they could book before the opening, all based on more than a year of talking with city staff, police and transit officials and visiting cities with existing indirect turns, Neal said.

The Lone Star State's **first-ever Michigan Left opened in 2010**. Signs and road striping were used to notify drivers well ahead of the U-turn.

Local press reports told of a **relatively event-free opening, though confusing**. There was a traffic ticket grace period of a few weeks.

Left turn crashes declined and higher traffic volumes moved through with less congestion, according to city data.

When the grace period ended, so did the project's honeymoon. Traffic tickets spiked (**tenfold by one year later**, according to the Dallas Morning News). Complaints rolled in, followed by negative press. Even as many drivers were getting used to the change, vocal opposition grew louder.

City council relented this summer. They also closed the door on planning two more Michigan Lefts in the city.

Next year, the intersection goes back to its conventional design. Neal predicts all the former gridlock issues will return.

I bring up Plano not as an omen of what will happen along U.S. 280 -- its U-turn is the same concept but slightly different than the ones here.

(Twelve U.S. 280 intersections will have indirect left turns requiring U-turns to get onto the highway. At Valleydale Road, will have to do U-turns to get off the highway.)

They're also one city, not the several cities and two counties U.S. 280 loosely ties together.

But their situation does pose deeper transportation questions.

Everyone is having to make do with the space they're given as the pool of available project money evaporates. Plano said cost and efficiency were their considerations, so does ALDOT.

Neal said the Plano U-turn may have been an "egg before the chicken" approach, but also made this point: "People are creatures of habit," he said. "Until you put them in a situation of dire straits, they're really not going to acknowledge there needs to be a change."

So what's our commuter situation? Are we in "dire straits," and what do we do about it? What needs to change?

Road rubbish: Roadside clearance sale on chairs this week, apparently.

- I-65 northbound: chair in the middle lane at the I-459 interchange
- I-65 southbound: Large wicker chair in the center lane between Alford Avenue and Montgomery Highway
- I-459 northbound: Chair in the inside lane near John Hawkins Parkway (Alabama 150)
- Red Mountain Expressway northbound: Large plastic bin in the center lane near the Highland Avenue exit
- I-65 southbound: Tire in the right lane near Green Springs Avenue.
- And the granddaddy of all road rubbish to date: The **at least 2,000-pound concrete block** dropped on I-65 northbound at Valleydale on Friday.

Don't just buckle up. Tie down.

Traffic Mike *writes about traffic and roads in the Birmingham area. Contact Mike D. Smith at msmith@al.com,* ***@TrafficMike_BHM*** *on Twitter or (205) 209-2878.*

Reconfiguration of controversial Plano intersection to begin early next year

Bill Conrad, bconrad@starlocalmedia.com | Posted: Wednesday, December 18, 2013 10:06 am

A study finding the median left turn layout at the intersection of Preston Road and Legacy Drive has decreased traffic flow and congestion was not enough to reverse the fate of the controversial design.

Installed in 2010, the median left turn – also known as the Michigan left turn – requires drivers on Legacy who wish to turn left onto Preston do so by turning right and then making a U-turn. While the design may not seem complicated, drivers have not accepted it. Earlier this year, the Plano City Council voted to revert it back to a standard design and canceled plans to modify other intersections.

Following that vote, the city commissioned a study to measure what would occur if the intersection was changed back to its pre-2010 configuration. The results of that study, which were shared with the city council Tuesday night, show that even though the intersection is hated, it is working as designed.

“A comparison … clearly shows that including the left-turn movements will increase the seconds of delay experienced by many drivers, which will lead to degradation of the level of service,” stated the report prepared by Parsons Corporation. “This is most notable during the morning peak hour for the southbound through movement, where the average delay experienced by each driver will increase from 14.6 seconds to 79.2 seconds – a 442 percent increase.”

Gerald Cosgrove, the city’s public works director, said he didn’t believe the “worst-case scenario” presented by Parsons would occur since the number of drivers turning left at the intersection has decreased by 80 percent since it was modified in 2010.

“The one thing I think we will probably see here when we change the intersection is that some of those people are going to come back,” Cosgrove said. “But if they come back and see that they are going to have to wait a longer period of time, they are not going to stay; they are going to go back to the option they picked when the median left turr was installed. I don’t think it will ever be as bad a situation as what it shows in the memo.”

Cosgrove said that while the intersection is working as planned and he still believes it is an efficient design, he feels drivers will never become accustomed to the unusual configuration.

“I think the one reason we want to get rid of this is that it is the only one in the area, and it is not intuitive to people to turn right to go left; that doesn’t make any sense to me,” he said. “If we had more of these in Plano or in the Metroplex, then I would say there would be reason to leave it here. But with it being by itself, I just don’t think it makes any sense.”

Mayor Harry LaRosiliere said he doesn’t feel a decrease in drivers using the intersection is a bad thing, noting the alternative routes taken by drivers are still in Plano. He said that while drivers were probably not given enough time to become conditioned to the new design, removing it is the correct decision.

Undoing the intersection will be a fairly simple process, Cosgrove said. In addition to removing multiple signs, the paint signifying no left turn on Legacy will be removed. The U-turn lanes will remain in place but will be regulated via a stop sign rather than a stoplight. Work on the intersection is expected to begin by the end of January or early February, although a public awareness campaign will begin prior to that to ensure drivers are aware of the changes.

Plano will ax median left turn at Preston Road and Legacy Drive next week

By MATTHEW WATKINS Staff Writer mwatkins@dallasnews.com Published: 30 January 2014 10:48 PM Updated: 30 January 2014 10:55 PM

Plano's unpopular four-year experiment to ease congestion at one of its busiest intersections will finally end next week.

City workers have already begun to dismantle the so-called Michigan left turn at Preston Road and Legacy Drive. The traffic system, also called a median left turn, was shown to reduce congestion and wrecks where about 80,000 cars pass every day. But drivers flooded City Hall with complaints that it was confusing and frustrating.

The city plans to revert to a traditional intersection Wednesday. Signs announcing the change have been posted on Legacy Drive.

The current system, as its name suggests, originated in Michigan. It requires people who want to turn left from Legacy Drive to take a right onto Preston Road and then do an immediate U-turn to go in the desired direction.

That prevents cars from backing up while waiting on a green arrow to turn left. Research has shown that clearing that backlog makes traffic run smoother in all lanes.

The average morning wait time for a driver going south on Preston Road is currently about 18.2 seconds, according to one study. Going back to the old system will increase that wait to 51.6 seconds, the study predicted.

But drivers have rejected the change. It was the only intersection of its kind in Texas when Plano opened it in 2010. Many drivers found it confusing. Others simply began avoiding the intersection.

Gerald Cosgrove, director of public works, said that may explain some of the improved traffic. He estimated that 75 percent of people who would have turned left at the intersection simply found another route.

"The public never accepted the concept," he said.

Phil Dyer saw that firsthand. He works at Legacy Texas Bank on the southwest corner of the intersection and initially spoke out against the design. He was elected mayor in 2009 and advocated reverting to the old system while in office.

"I just think it has been a very unfriendly thing for both the citizens of Plano and our visitors," he said.

The decision to change back was one of Dyer's last votes before he left office in May 2013. Since then, city officials said they haven't heard from anyone who disagreed.

But Cosgrove said the experiment shouldn't be considered a failure. The city will adjust light timing, remove paint and open up a new lane. But the pavement will remain where it is, he said.

"So if you want to use the U-turn, it is still available," he said.

UTAH ARTICLES

Intersection design for Layton road will ease congestion, UDOT says

by Caroline Connolly

DRAPER — The traffic may be flowing along 12300 South in Draper today, but business has slowed at the spots alongside it.

“Right from day one I was down probably 25 percent,” said Alan Summerhays, owner of Guadalahonkys.

According to Summerhays, motorists used to pull into his Mexican restaurant all day, but a traffic solution from the Utah Department of Transportation in 2011 created a problem for him.

“That brings three less turns that they can get into my properties,” said Summerhays.

The ThrU Turn, as it’s called, stopped drivers from turning left at the main intersection into his restaurant, and instead made them do a U-turn about 400 feet down the road, before making a right into their destination.

“If I was a business man, I’d get to my landlord as quick as possible and renegotiate my lease and head on down the road because, it’s going to hurt, Summerhays said.”

But the design works, according to UDOT officials, who now want to try it at Hill Field Road in Layton.

“Congestion in the area is bad, and it’s getting worse,” said Patrick Cowley, Project Manager for UDOT Region 1. “And the main problem is the intersections are so close together.”

They plan to put two ThrU Turns where Hill Field Road intersects at Main and Gordon Avenues. According to their research, in a side by side comparison, the move will save drivers 2-3 minutes on the road on a daily basis.

“People are waiting four cycles through the light in order to get to where they need to go, just in that little area,” said Kent Andersen, Layton city’s economic development specialist.

Andersen believes the project will help businesses, not hurt them, by bringing more drivers through the area to stop for shopping, rather than traffic.

“I mean, anecdotally, I know people that are avoiding this area just because they don’t want to get bogged down in the traffic,” Andersen said. “So, this will hopefully encourage business shoppers to frequent the area because now traffic is going to be moving quicker.”

Construction on the project is expected to begin in July.

The Salt Lake Tribune

Do newfangled intersections ruin business?

ThrU Turn • Complex road design blamed for access problems in Draper and Kearns.

BY LEE DAVIDSON

THE SALT LAKE TRIBUNE

PUBLISHED: JULY 29, 2013 05:27PM

UPDATED: DECEMBER 7, 2013 11:35PM

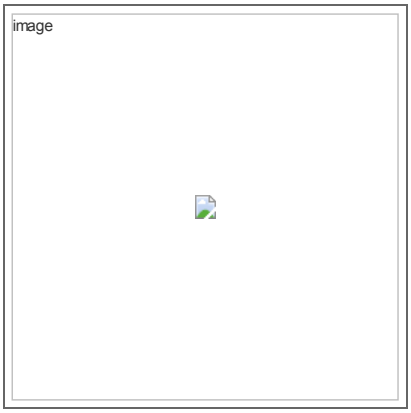
His message, unfortunately, was prophetic.

"You're gonna kill me — I'm going to be dead," Jim Sachs told Utah highway officials, referring to the Common Cents gas station he owned on 12300 South near Interstate 15 in Draper. He worried a first-in-Utah, complicated "ThrU Turn" intersection would make reaching his store from the freeway too difficult.

"No one will want to make two U-turns to get to his station," a written record of his phone call in late 2010 says. The new design requires such complex moves, instead of a single left turn. The record adds, "Common Cents just bought out the Flying J in Draper within the last three weeks. They were not aware of the plans to put in the ThrU Turn and are very upset."

Within a year after the new $5 million ThrU Turn was installed, the gas station indeed closed. But next to the abandoned store, severe traffic congestion has largely disappeared, and the traffic flows much more quickly at the intersection with Minuteman Drive.

These developments sharply illustrate the arguments for and against what is turning out to be a controversial intersection design. UDOT says ThrU Turns — called Michigan U-turns in other areas of the nation — are a great tool to speed traffic, but nearby businesses say it kills customer access. They have filled UDOT correspondence files with tales of struggle and worry.



How ThrU Turn intersections work The Draper ThrU Turn eliminates left turns at the intersection of 12300 South and Minuteman Drive. Motorists wanting to go left must first go straight through the intersection, then make a U-turn at a special intersection a few hundred feet down the road. Then they return to the main intersection and make a right turn. Northbound and eastbound examples are shown here.

"You could put up walls along the road with no access and you would have great flow-through. But that's not what it's all about. You need a balance of convenience to the consumer and also flow," Paul Hitzelberger, who owns a Del Taco on 12300 South, said in an interview. He owns 25 other Del Taco restaurants but says only the Draper store struggles lately because of the ThrU Turn.

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Design • The unusual design of the ThrU Turn gives many businesses heartburn. It has been used at just two intersections so far, at 12300 South and Minuteman in Draper, and at 5400 South and 4015 West in Kearns.

It does not allow any left turns at the main intersection. Motorists wanting to turn left must go straight through the intersection and make a U-turn at a special intersection with a signal a few hundred feet down the road.

Drivers then must return to the main intersection and make a right turn to end up traveling in the desired direction.

Alternatively, drivers could also turn right at the main intersection, and then make a U-turn to return to the main intersection in the desired direction.

Robert Miles, UDOT traffic operations engineer, said ThrU Turns were selected in Draper and Kearns because they could relieve congestion while avoiding removing businesses at the crowded intersections for widening and could avoid even more expensive options such as building bridges.

He acknowledges they make drivers think differently.

"It looks significantly different. The order in which you make the movements for a left turn is different," he said. "To make a left, you make a right — or you go through the intersection and make a U-turn and come back and make a right."

Complicating matters is that the design adds a physical median between the main intersection and the U-turn intersections — preventing left turns across the road into businesses.

That means to get to some businesses, such as the closed Common Cents store, drivers must make two U-turns from some directions.

From the freeway to Common Cents, "You have to go through the intersection to do a U-turn to do a right turn to then do a U-turn to do another right turn," Hitzelberger of Del Taco said. "There's an expectation that people will do that. Well, they won't."

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Traffic • A study for UDOT by Avenue Consultants says the ThrU Turn in Draper has helped to dramatically reduce congestion there. UDOT has yet to do such a study in Kearns because of some ongoing lane construction.

“The ThrU Turn reduces the average delay per vehicle at the intersection [in Draper] from 46 seconds to an average of 16 seconds,” the study says. Consumer savings — in time and gasoline — are estimated at $1.25 million for the first year.

UDOT spokesman Adan Carrillo said the design change also helped solve a safety concern in the area.

“Cars were starting to stack up on I-15. That’s never a good situation,” Carrillo said. “You essentially have cars parked on the freeway” with other cars approaching them at high speed.

The biggest time savings are for cars that go straight through the intersection. Cars making combinations of U-turns and right turns to go left are generally spending more time — up to 51 seconds longer than before in some directions, the study said.

“But cars are continually moving,” Miles said. “Vehicles are more efficient if they are moving than just idling.”

Miles said UDOT projected that if it did nothing at the intersection, congestion could have created seven-minute delays to get through it by 2030.

The study says that anecdotally, the ThrU Turn appears to have decreased accidents as a result of reducing left-hand turns — but said more statistically reliable data over time is needed to verify that.

The study also found that about 20 percent of the relief at the intersection resulted from UDOT adding a new I-15 exit at 11400 South, and much of the traffic diverted shifted there.

“Traffic-wise, they are working very well. There are a lot of delays out there that have been saved,” Miles said.

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Business • The UDOT study says sales taxes collected by businesses in the area generally increased in the first six months after the ThrU Turn opened, so “there is no evidence that the ThrU Turn Interchange has reduced overall [shopping] trips or that it has negatively impacted overall economic activity.”

Hitzelberger laughed when he heard that. “It’s had a huge negative effect on the businesses,” he said. “That’s the reality.”

Several businesses around ThrU Turns in Draper and Kearns declined interviews, but UDOT correspondence files show their concerns — including the prophetic warning by Common Cents that it would be driven out of business in Draper.

Rancho Market in Kearns told UDOT it figured that reduced traffic from the ThrU Turn could put it out of business within a few years. Walgreens in Kearns, which reported it had the highest sales in the state for its chain, reported “extremely negative impacts.” Wendy’s restaurant officials in both Kearns and Draper worried the intersection would hurt business.

Hitzelberger of Del Taco wrote that the design was “destroying my business” in Draper. He expounded in an interview.

“Our guests are very frustrated with that intersection. … Guests say, ‘Wow, it’s hard to get to your store,’ ” he said. “The signage is beyond terrible. It is so difficult and dangerous to figure out.”

He had sharp criticism for UDOT.

“They’ve been incredibly successful in wrecking one of the best intersections in the whole state for business.”

Miles said while UDOT likes the new intersections, it is still learning and open to discussions.

“We’re still looking and listening and talking to people about it. We’re learning,” Miles said. “They [the intersections] are doing everything they were designed to do. Now it is a matter of educating, learning and communicating better how to make them work.”

The Salt Lake Tribune

Controversial intersection design won't hurt businesses, UDOT says

Agency said it has learned its lesson after ThrU Turns hurt businesses in Draper, Kearns.

BY LEE DAVIDSON

THE SALT LAKE TRIBUNE

PUBLISHED: APRIL 7, 2014 10:53AM
UPDATED: APRIL 6, 2014 04:59PM

Al Hartmann | The Salt Lake Tribune View looking north on Main Street to busy intersection with Hill Field Road in Layton. UDOT is about to install another controversial ThrU Turn intersection design on Hill Field Road and Main Street in Layton. The design will affect roads to the east at the nearby I-15 interchange and at Layton Hills Mall. UDOT says it is needs to reduce extreme congestion. It is supported by Layton, but similar designs in Draper and Kearns have been controversial and hurt businesses.

A newfangled ThrU Turn intersection already killed one Common Cents convenience store in Draper. So the company is not exactly thrilled that another is now planned in Layton where another Common Cents sits.

"You're gonna kill me — I'm going to be dead," Jim Sachs, operations manager for Common Cents, correctly predicted to state highway officials in 2010 about his Draper store on 12300 South near Interstate 15, records show.

This time, he says, traffic is already so horrible along Hill Field Road near I-15 in Layton that the unusual new traffic design may help — or at least not hurt.

"I don't think they will kill our store" this time, he says. "In Draper, I knew they would, and they did."

Utah Department of Transportation officials say they learned a lot from controversial, unpopular ThrU Turns in Draper and Kearns — and are using those experiences to improve their coordination with Layton businesses to ensure they are not hurt. They also say the new design will work better than 23 alternatives studied for the area.

Layton officials support the plan. They say congestion is so bad that people are avoiding the area and its businesses, and think it will work well with the locale's unique problems. Some drivers who wish to avoid long traffic signal waits already are making U-Turns, which the new design will require.

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Design • The unusual design of the ThrU Turn, called Michigan U-Turns in other states, has caused heartburn for businesses in Draper at 12300 South and Minuteman Drive and in Kearns at 5400 South and 4015 West. But it has sped up through-traffic there, according to transportation studies.

The ThrU Turn does not allow any left turns at the main intersection — which cuts down waiting time at signals. Motorists wanting to turn left must go straight through the intersection, then make a U-Turn at a special intersection with a signal a few hundred feet down the road.

Drivers then must return to the main intersection and make a right turn to end up traveling in the desired direction. Studies show that in Draper, for example, average delays at signals went from 46 to 16 seconds.

In Kearns and Draper, the design also added physical barriers in the median between the main intersections and the U-Turn intersections, preventing direct left turns across the street into businesses. The Layton interchange already has such barriers in most areas.

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Complaints • Sachs said the barriers and design forced travelers off the freeway to make two U-Turns to reach his Common Cents in Draper, which is not very convenient for a convenience store. Common Cents bought that store from Flying J just before construction was announced, and it closed in a matter of months.

UDOT files are full of complaints from stores in Draper and Kearns. Rancho Market in Kearns predicted the design would put it out of business within a few years. A Walgreens said it previously had the highest sales for that chain in the state but reported "extremely negative impacts."

Wendy's restaurants in both locations said the design hurt business. Paul Hitzelberger, owner of 26 Del Taco eateries, earlier told The Tribune that all were doing well — except one in Draper because the ThrU Turn made entry difficult.

Such complaints "definitely have helped us to be cognizant of things that need to be priorities for us to look at as we put together the

design in Layton," said UDOT spokeswoman Elizabeth Weight.

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Layton difference • "One of our main concerns was that this would negatively impact businesses" so designs were tweaked several times to address their concerns, Patrick Cowley, UDOT project manager, said. "We feel in some cases we are actually enhancing access now."

For example, he says, access to Layton Hills Mall off Hill Field Road may improve. One of the new special intersections for U-turns will also provide access to the mall for left turners off of Hill Field. (Copies of plans are online at sltrib.com).

Current turns across Hill Field at Gordon Avenue to the mall will not be allowed, Cowley said. Those turns will be moved a bit further to the new signaled intersection. He said that should eliminate much of the traffic backup along Hill Field.

Cowley said traffic currently can back up a half-mile on roads in the area, including onto the freeway. Much of the problem comes from four major intersections — Main Street, two freeway ramps and Gordon Avenue — within a short distance on Hill Field.

Cowley said congestion there now is so bad that it often takes 10 minutes to travel the short distance from Main Street past the I-15 interchange and beyond Layton Hills Mall accesses. UDOT says the ThrU Turn will cut that delay in half — and prevent waits that would double over the next 25 years without changes.

"People in this area recognize that there is a need for something to be done. Any help would be appreciated," he said. Of two dozen alternatives, the ThrU Turn is the cheapest and will have the least negative impacts on businesses.

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Support • "We absolutely do believe it is a good solution," said Kent Andersen, economic development specialist for Layton. "And we're at a point where doing nothing is not an option."

Anecdotally, many people say they avoid businesses in that area because of congestion, Andersen said, including motorists sitting at lights for up to four cycles.

One reason he says businesses believe the ThrU Turn won't hurt is that drivers trying to turn from Main Street to Hill Field Road already are driving down the road, making U-turns and returning for an easy right turn to avoid long waits for turn signals. "They call it the Layton shortcut," Andersen said.

Bill Wright, community and economic development director for the city, acknowledged: "There are a few businesses with concerns about it. There are two sides to every issue." But he said most are happy with it.

UDOT plans to begin construction this summer, and Cowley said plans call for the project to be completed well before Thanksgiving so it won't hurt Black Friday shopping at Layton Hills Mall.

Sachs, the Common Cents operation manager, still is a bit uneasy, especially after his ThU Turn experience in Draper. "I think I'm OK," he said. "But any time UDOT changes movement, it can affect business."

Bangerter Highway construction projects will make for hectic summer, fall

Caroline
Kingsley

Homes have been lost to make way for the wider footprints, and it may be rougher going for a while, due to the construction on Bangerter Highway and three intersections in West Jordan. The end result will be a safer and more efficient commute, according to Utah Department of Transportation officials.

At the continuous flow intersections to be constructed at 6200 South and 7000 South, the speeds will be reduced about 10 miles per hour and the lanes may shift and become narrower. If there are lane closures, UDOT will post notices in advance on how to avoid the area and provide alternate routes.

“But we try to keep traffic flowing as much as we can,” Adan Carrillo, Utah Department of Transportation spokesman, said at a May 25 open house. “We anticipate much of this work taking place at night as well as during non-peak hours, so that we can get most of the work done without impacting heavy directional traffic during peak times.”

UDOT is implementing an innovative way of routing traffic through 7800 South and Bangerter, because there will be no northbound and southbound turns at that intersection.

“We will utilize through-turns or u-turns that will have people turn right and go down on Bangerter, then take a U-turn on Bangerter a bit to avoid left turns. That’s only when we’re doing 7800 South. It’s actually a lot safer than trying to maneuver those left turns while it’s under construction,” Carrillo said.

It shouldn’t be any surprise to west-side commuters that Bangerter Highway carries more traffic than any other surface street in Utah.

“With the improvements here we think we can make it safer, more efficient, and we’ll make both east- west connections across the Bangerter Highway much more efficient,” UDOT executive director John Njord said. “So we’re glad to be here and we’re glad to be in your neighborhood, and we hope we’re not too disruptive in the time that we’re here. We hope that we can accomplish our work effectively and efficiently and be out of your hair as quickly as possible.”

A group of teachers who work at Columbia Elementary, on the corner of 7800 South and Bangerter. attended the open house and expressed their concerns about the construction.

“When they had the construction last time, it was a nightmare to get the kids to and from school. We had busses that weren’t getting here. It was crazy,” Elizabeth Pickett said. “We’re more concerned about the kids than anything, about safety.”

The CFIs are scheduled to be completed by November 2011, and the 7800 South interchange by late summer 2012.