



**Illinois Department  
of Transportation**

## **FEASIBILITY STUDY**

### **MACARTHUR BOULEVARD**

***Wabash Avenue to South Grand Avenue***

**Springfield, IL**

**SANGAMON COUNTY**

**October 2017**

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## 1.0 DESCRIPTION & PURPOSE AND NEED OF STUDY

The Illinois Department of Transportation (IDOT), along with the City of Springfield, has conducted a Feasibility Study to investigate existing conditions on MacArthur Boulevard from Wabash Avenue to South Grand Avenue (see **Appendix A** for Location Map). In 2010, through a HUD grant, the Springfield-Sangamon County Regional Planning Commission selected the Lakota Group to perform a Master Plan for MacArthur Boulevard. The Master Plan's northern half includes this Feasibility Study's project limits. The Lakota Group's Study recommendations, among others, were for revitalizing MacArthur Boulevard's street, sidewalk, and businesses.

The purpose of the study is to evaluate improvements to address the needs for better pedestrian access, bicycle accommodations, additional capacity north of Laurel Street, and drainage improvements. Costs for land acquisition and construction were also studied.

MacArthur Boulevard between South Grand and Wabash Avenue is one of the major thoroughfares in Springfield carrying an average of approximately 21,400 vehicles per day. MacArthur Boulevard is a positive economic and social asset to the City. Recent development of MacArthur Boulevard south of Wabash Avenue and its potential future extension to Woodside Road, along with current and future development of Stanford and Wabash Avenue, will only increase the use and importance of this corridor. The addition of the Hy-Vee Grocery Store also provides a potential anchor for future commercial development.

For this Feasibility Study, various elements along MacArthur Boulevard have been studied, such as pedestrian and bicycle, and mass transit accommodations and possible ways to provide additional green space. Various alternatives have been studied. The alternatives were assessed for desirability, cost, and impacts to commercial business. Public input was sought at public meetings on the alternatives and their associated impacts.

A more detailed analysis would be required should this project advance to the next stage, which would include analyzing access locations with the possibility of eliminating or consolidating entrances in order to provide better safety along the corridor. Intersections would be studied for ideas to modernize traffic signals and their layout to promote safety and improve traffic flow. The storm sewer system may be subject to improvements to alleviate any current drainage issues. Bicycle accommodations would be checked for compatibility with the master bicycle plan, which may be satisfied by a combination of improvements on MacArthur Boulevard itself as well as the use of parallel routes. Pedestrian, ADA accommodations, and mass transit facilities would be addressed as required.

## 2.0 EXISTING CONDITIONS

MacArthur Boulevard is an unmarked State Route (FAP 664) with an Average Daily Traffic (ADT) volume of 21,400 vehicles per day (vpd). (2015 value from IDOT graphical map). The route is not identified as a truck route. From Wabash Avenue north to Laurel Street, the roadway is five lanes with a two way left turn lane (TWLTL). From Laurel Street north to South Grand Avenue the roadway corridor is four lanes undivided. MacArthur Boulevard has a closed drainage roadway with storm sewers and curb and gutters. The existing sidewalk along MacArthur Boulevard is very segmented and not connected. Some locations along the corridor do not have any sidewalks at all. Many locations with sidewalks have out of policy, or non-compliant, handicap (ADA) accessible ramps (see **Appendix D**). The average right-of-way (ROW) is 66 feet wide.

Mass Transit Accommodations. Springfield Mass Transit District (SMTD) currently utilizes six bus routes on all or parts of MacArthur Boulevard. Routes 6, 8, 13, 14, 903, and 904 run on MacArthur Boulevard utilizing 25 bus stops along the project corridor. There are no bus shelters. As SMTD updates technology in its systems, a future shelter along MacArthur Boulevard may be constructed.

Geometric Issues. Some intersections in the project corridor are proposed to be reconstructed to allow for better turning geometry and pedestrian access. The intersections at Ash Street and Laurel Street are included in the IDOT FY 2018-2023 Proposed Highway Improvement Program to be improved. The offset centerlines from the east bound and west bound Laurel Street approaches will be smoothed and realigned as a continuous east-west signalized roadway.

Maintenance. In 2015, a ten year agreement between the City of Springfield and IDOT was renewed. This agreement gives the City minor maintenance responsibilities on MacArthur Boulevard while IDOT retains jurisdiction and ownership. A copy of this agreement is included in **Appendix D**.

Drainage Concerns / Improvements. A September 2015 letter from the City of Springfield Office of Public Works noted the existing storm sewer network along MacArthur Boulevard is adequate. However, it did cite the conditions of the inlets and castings caused repairs to be performed annually along MacArthur Boulevard. A copy of this letter is included in **Appendix I**.

**Crash Data.** As shown in **Table 1**, crash data has been collected along MacArthur Boulevard from 2008 to 2014. During this time period an average of 70 crashes occurred annually. The highest type of crashes were Rear End crashes (32 on average annually), followed by Turning crashes (16) and Angle crashes (8). A heavy concentration of crashes was recorded in the four lane section of the study corridor (Laurel Avenue north to South Grand Avenue). This section of MacArthur Boulevard accounts for 18 percent of the roadway length, yet on average 36 percent of crashes along the corridor occurred between Laurel Avenue and South Grand Avenue. Additional crash data can be found in **Appendix E**.

<b>TABLE 1: CRASH TYPES WITHIN THE STUDY AREA (2008-2014)</b>							
<b>Type</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Angle	5	7	10	6	11	6	10
Animal	1	0	0	0	1	0	0
Fixed Object	4	5	5	5	6	1	5
Other Object	0	0	1	1	1	0	0
Head On	1	0	0	0	4	0	1
Pedacyclist	1	0	0	0	0	2	0
Pedestrian	1	1	0	1	3	0	1
Rear End	31	32	33	33	28	28	42
Sideswipe Opposite Direction	1	0	0	0	1	1	0
Sideswipe Same Direction	4	4	6	5	5	6	7
Turning	12	18	20	21	16	10	17
Parked Car	0	0	1	0	1	0	0
Overturned	0	0	0	1	0	0	0
<b>Total</b>	<b>61</b>	<b>67</b>	<b>76</b>	<b>73</b>	<b>77</b>	<b>54</b>	<b>83</b>

### 3.0 DEVELOPMENT OF ALTERNATIVES

The Project Study Team (PST), consisting of members of IDOT, the City of Springfield, and the engineering consultant, identified key points to determine alternatives and associated costs for improving:

- Pedestrian accessibility;
- Bicycle accommodations;
- Capacity north of Laurel St.; and
- Drainage.

**Table 2** listed below provides a description and comparison of the alternatives. Please see **Appendix B** for the typical sections.

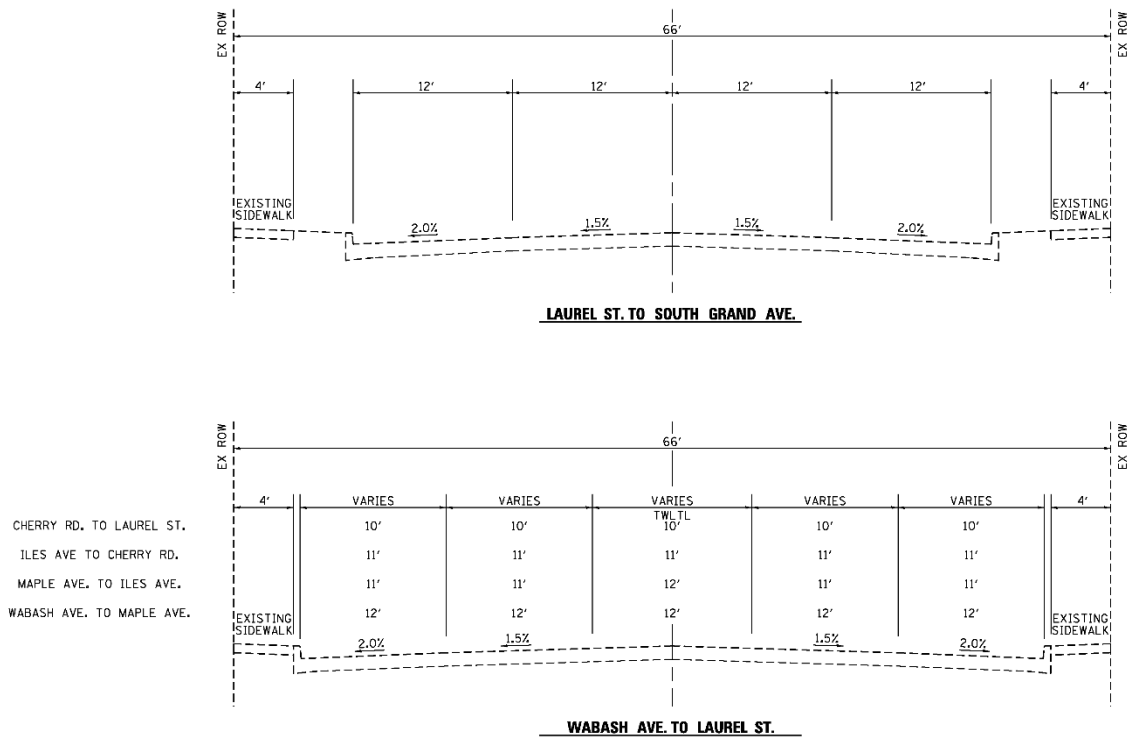
TABLE 2: ALTERNATIVES				
Description	Alternative	Bicycle/Ped Accommodations		New Curb & Gutter
		Bike Accommodations	Sidewalks	
Corridor retains existing conditions	No-Action	No	No	No
Resurfacing of existing lanes	1	No	No	No
Resurfacing of existing lanes; Widening from Laurel to South Grand	2	No	7 feet	North of Laurel St.
Widening from Laurel to South Grand	3	6 feet bike lanes	5 feet	Yes
	4	10 foot path	5 feet	Yes
	5	Share with Sidewalk	7 feet	Yes
	6	Share with Sidewalk	8 feet	Yes
Reduce Lane Widths to 10'	7	No	6 feet	Yes

The following describes each alternative in detail.

### No Action Alternative

#### Corridor Retains Existing Conditions

This alternative has no new construction occurring within the project corridor. The No Action Alternative does not meet the study goal of improving the corridor.

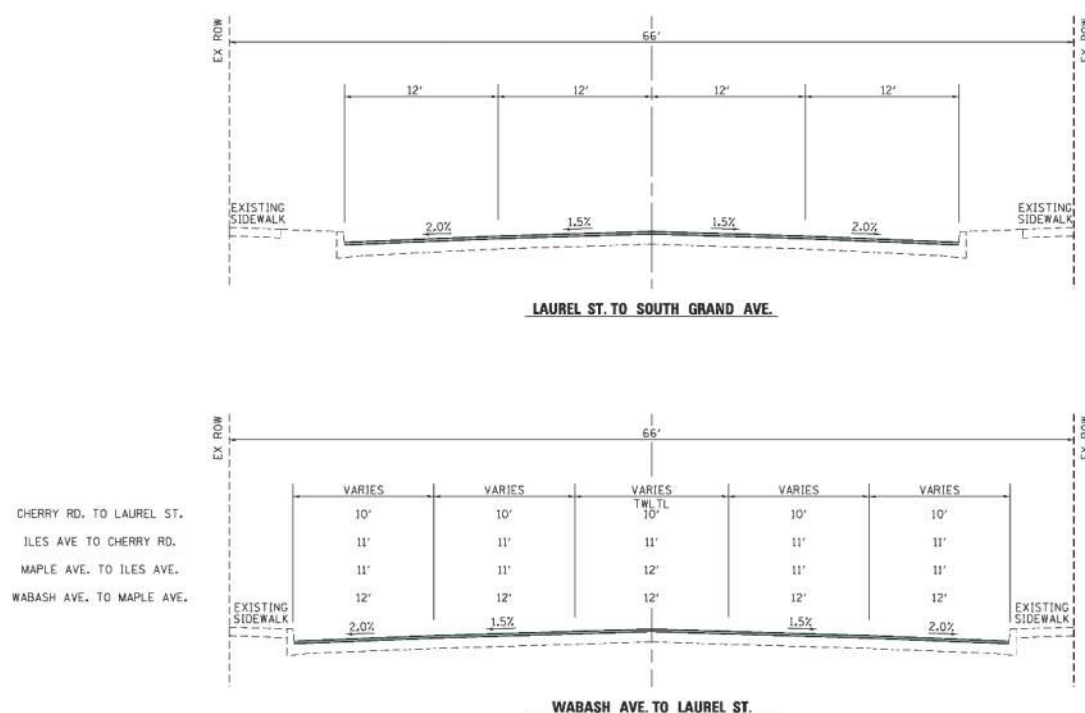


**FIGURE 1**  
**No Action Alternative Typical Section**

## Alternative 1

### Resurfacing of Existing Lanes

Alternative 1 encompasses resurfacing the roadway for the length of the project study corridor. Additionally, Alternative 1 would include ADA improvements at sidewalk ramps, but would not otherwise improve the existing sidewalk network. Only minimal right-of-way will be required for the sidewalk ramp improvements. Construction cost is estimated at \$2.5 million.



**FIGURE 2**  
**Alternative 1 Typical Section**

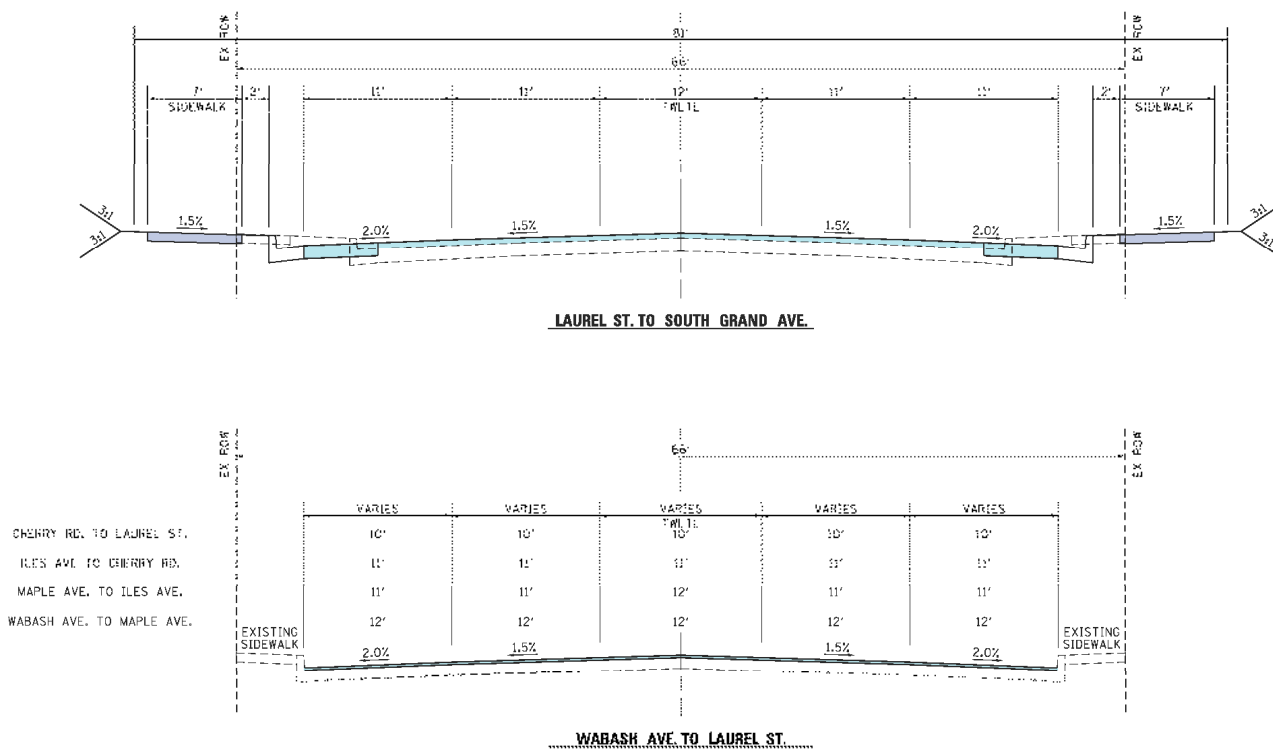


## Alternative 2

### Resurfacing of Existing Lanes; Widening from Laurel to South Grand; 7 foot Sidewalks

Alternative 2 consists of resurfacing MacArthur Boulevard (similar to Alternative 1) with the same lane dimensions from Wabash Avenue to Laurel Street. Upgrades to pedestrian accommodations from Wabash Avenue north to Laurel Street would be minimal and consist of new ADA compliant sidewalk ramps. However, from Laurel Street north to South Grand Avenue the roadway would be widened to 11 feet through lanes and a 12 foot TWLTL. New curb and gutter would also be constructed. Behind the curb and gutter would be a two foot turf strip and a seven foot sidewalk on each side of MacArthur Boulevard.

The sidewalk will be accessible by both pedestrians and cyclists. This alternative would impact 0.47 acres of new right-of-way. Seventeen parcels are affected by the additional work performed by this alternative. Three buildings are potentially impacted. Construction and land acquisition cost would be an estimated \$6.5 million.



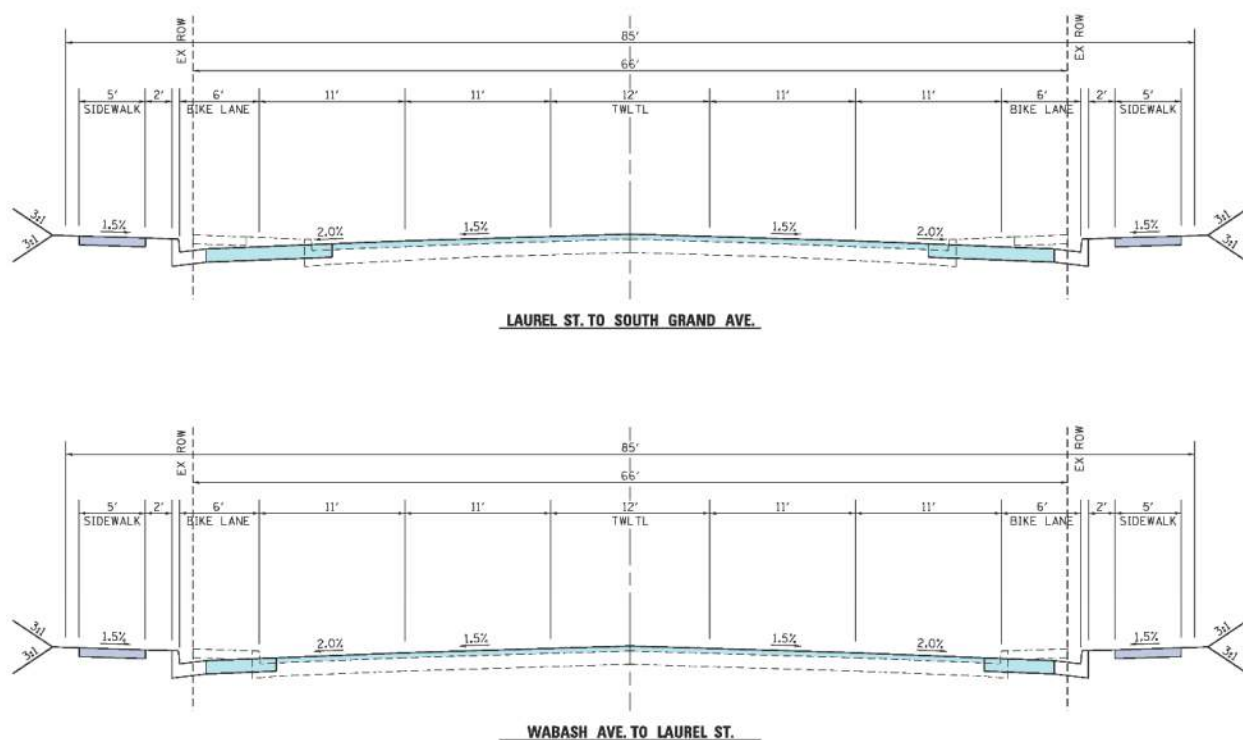
**FIGURE 3**  
**Alternative 2 Typical Section**

### **Alternative 3**

#### **Widening from Wabash to South Grand: 6 foot Bike Lanes; 5 foot Sidewalks; New Curb & Gutter**

In Alternative 3, MacArthur Boulevard would be widened to 11 foot through lanes and a 12 foot TWLTL with a 6 foot bike lane in each direction. New curb and gutter would also be installed. Behind the curb and gutter, a two foot turf strip and a five foot sidewalk would be constructed on each side of MacArthur Boulevard. This alternative would impact 3.14 acres of new right-of-way.

The separate bike lanes would allow bicycles to travel along MacArthur Boulevard next to vehicular traffic. Pedestrians would be accommodated with the sidewalk. Seventy-nine parcels would be affected by the work performed by this alternative, with 26 buildings potentially impacted. Construction and land acquisition cost is estimated to be \$26.1 million.



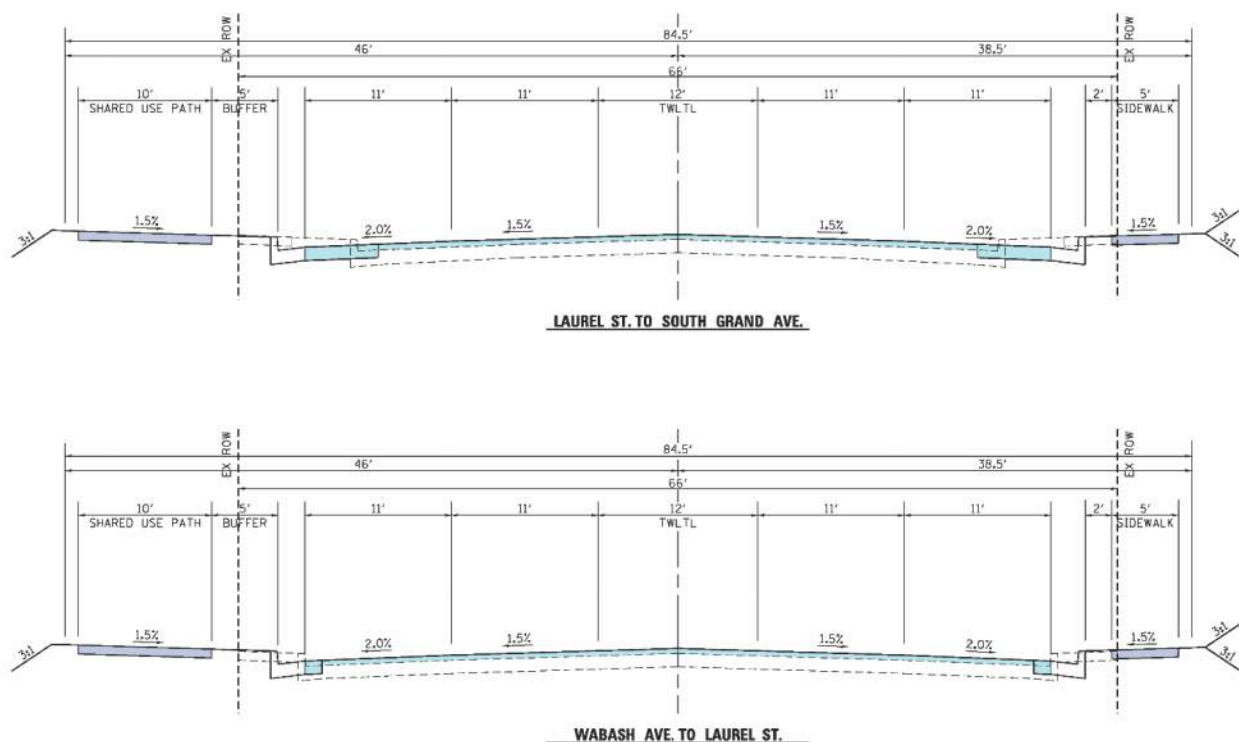
**FIGURE 4**  
**Alternative 3 Typical Section**

## **Alternative 4:**

### **Widening from Wabash to South Grand; 10 foot Shared Use Path; 5 foot Sidewalk; New Curb & Gutter**

In Alternative 4, MacArthur Boulevard would be widened to 11 foot through lanes and a 12 foot TWLTL. New curb and gutter would also be installed. A two foot turf strip and five foot sidewalk is proposed behind the curb and gutter on the east. A five foot turf strip and 10 foot wide shared use path would be constructed behind the curb and gutter on the west side of MacArthur Boulevard.

The shared use path would accommodate two-way bicycle and pedestrian traffic. The sidewalk would be for pedestrian use only. Alternative 4 allows accommodation for both cyclists and pedestrians without the possibility of vehicular interference. This alternative would impact 2.41 acres of new right-of-way. Eighty parcels are affected by the work performed by this alternative, and 15 buildings would potentially be impacted. Construction and land acquisition cost is estimated to be \$21.7 million.



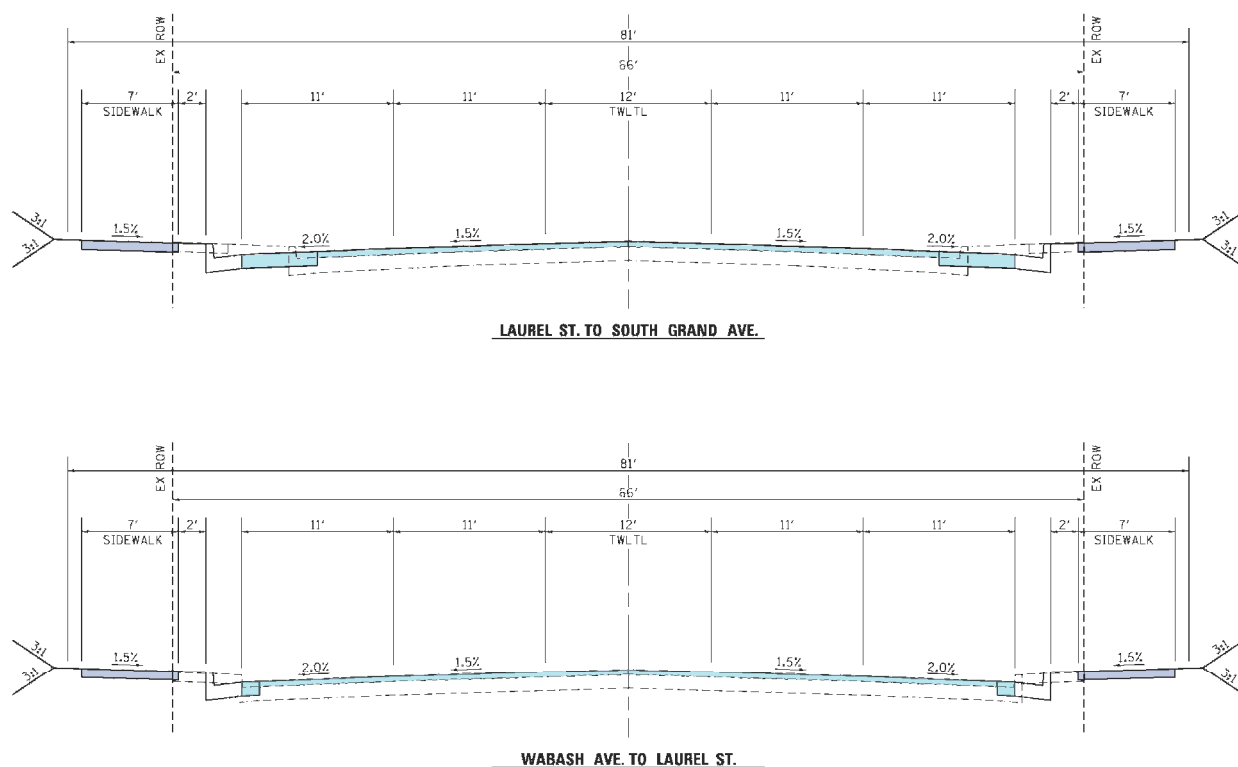
**FIGURE 5**  
**Alternative 4 Typical Section**

### **Alternative 5:**

#### **Widening from Wabash to South Grand: 7 foot Sidewalks; New Curb & Gutter**

Alternative 5 would widen MacArthur Boulevard with 11 foot through lanes and a 12 foot TWLTL. New curb and gutter would also be installed. A two foot wide turf strip and seven foot wide sidewalks is proposed behind each curb. The sidewalk would be accessible by both pedestrians and cyclists.

This alternative would impact 1.92 acres of right-of-way. Seventy-eight parcels are affected by the work performed by this alternative, and nine buildings would potentially be impacted. Construction and land acquisition cost is estimated to be \$20.6 million.



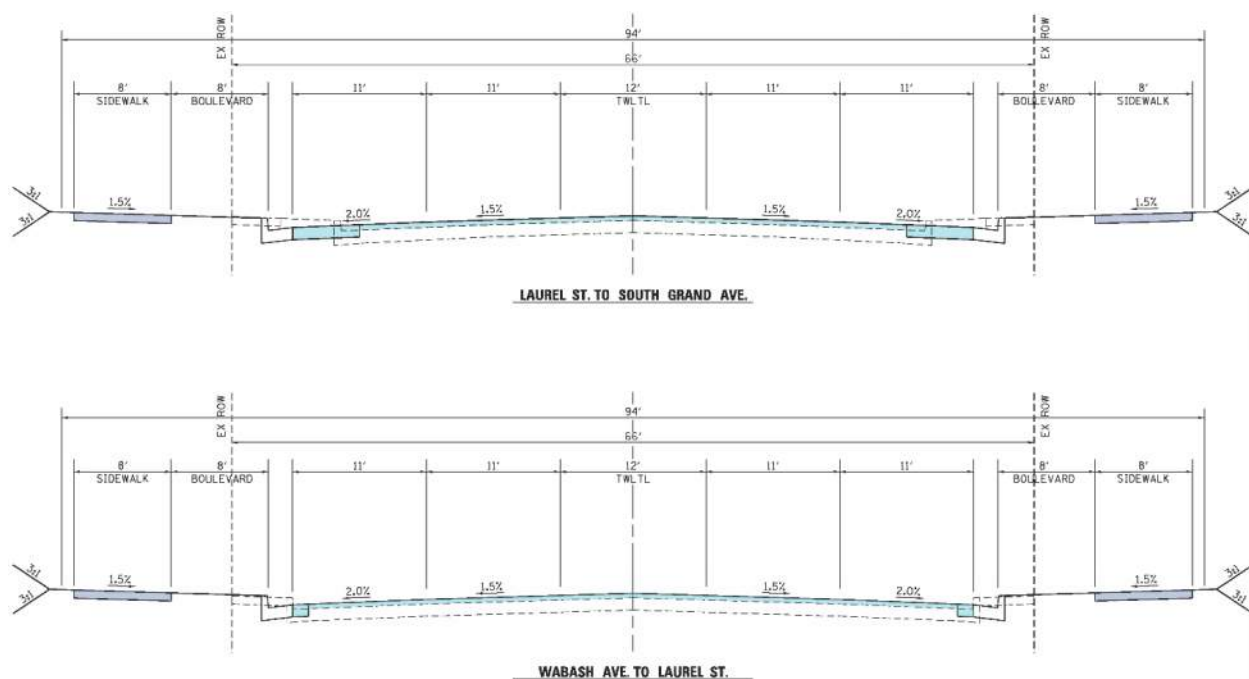
**FIGURE 6**  
**Alternative 5 Typical Section**

### **Alternative 6:**

#### **Widening from Wabash to South Grand: 8 foot Sidewalk; 8 foot Boulevard; New Curb & Gutter**

Alternative 6 would widen MacArthur Boulevard with 11 foot through lanes and a 12 foot TWLTL. New curb and gutter would also be installed. An eight foot wide “boulevard” and eight foot wide sidewalks would be placed behind each curb. The sidewalk will be accessible by both pedestrians and cyclists. This Alternative is modeled in the master plan by The Lakota Group, referenced earlier.

This alternative would impact 3.78 acres of right-of-way. Eighty-two parcels would be affected by the work performed by this alternative, and 32 buildings would potentially be impacted. Construction and land acquisition cost is estimated to be \$26.3 million.

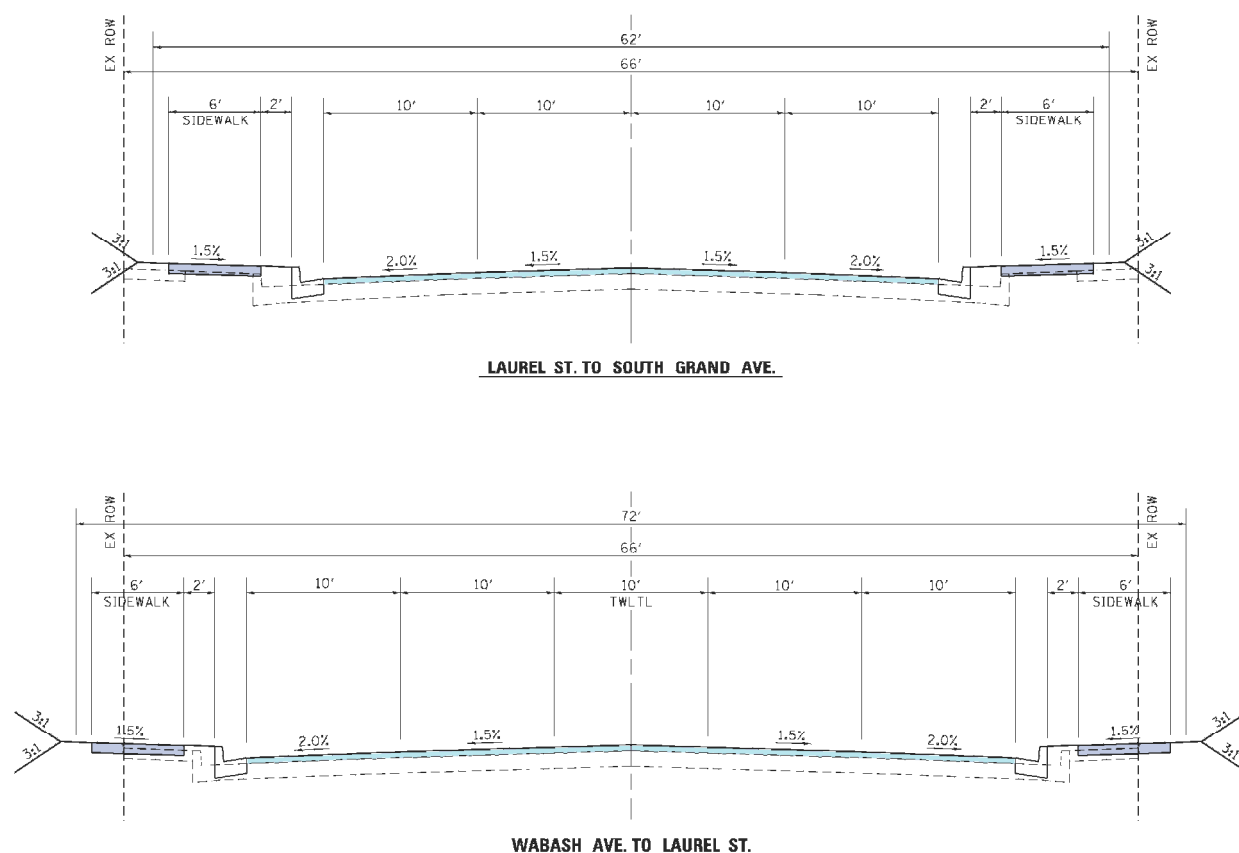


**FIGURE 7**  
**Alternative 6 Typical Section**

## Alternative 7

### 10 foot Lanes; 6 foot Sidewalks; New Curb & Gutter

Alternative 7 would narrow MacArthur Boulevard by reducing the lane widths to 10 foot through lanes and a 10-foot TWLTL from Wabash Avenue north to Laurel Street. From Laurel Street north to South Grand Avenue, the same lane configuration would be proposed but with no TWLTL. New curb and gutter would also be installed. Placed behind each curb would be a two-foot wide turf strip and six-foot wide sidewalks. While studies indicate narrowing roadway lane widths can reduce vehicle speeds and reduce the potential for increased crashes, the Federal Highway Administration (FHWA) indicates 10 foot is too narrow for a safe lane width for a roadway with the current level of traffic travelling the study corridor<sup>1</sup>. Drivers would feel too anxious about other vehicles, especially larger vehicles, staying in their respective travel lanes. Sideswipe crashes may increase. This alternative was abandoned from further study due to these safety issues for vehicular traffic associated with narrow lanes.



**FIGURE 8**  
**Alternative 7 Typical Section**

<sup>1</sup> [http://safety.fhwa.dot.gov/geometric/pubs/mitigationstrategies/chapter3/3\\_lanewidth.cfm](http://safety.fhwa.dot.gov/geometric/pubs/mitigationstrategies/chapter3/3_lanewidth.cfm)

## 4.0 PUBLIC INVOLVEMENT

The public involvement activities associated with the MacArthur Boulevard Feasibility Study were designed to gather information and input from affected agencies and jurisdictions as well as area residents and businesses. Activities were scheduled to ensure timely consideration of public and agency input with respect to the technical work conducted. Stakeholder meetings and public meetings were conducted. Please see **Appendix G** for public involvement materials, correspondence, and news articles.

The following provides summaries of the public meetings.

### 4.1. PUBLIC MEETING #1 SUMMARY

IDOT held a public kickoff meeting on January 29, 2014 at the South Side Christian Church in Springfield, Illinois. The meeting was attended by 137 people. The purpose of the open house meeting was to introduce the study to the public and to gather comments from the public regarding any need for improvement to the MacArthur Boulevard corridor from Wabash Avenue to South Grand Avenue. Exhibits, maps, and aerial photography of the study area were on display. Forty-five attendees provided written comments. The written comments are provided in **Appendix G**.



Recurring comments included:

- Improving pedestrian accommodations along MacArthur Boulevard (Upgrade/New sidewalks; Improved crosswalks at signals),
- Providing bicycle accommodations along MacArthur Boulevard (Shared use path or dedicated bike lanes), and
- Increased green space / aesthetics (sculptures/aesthetically pleasing lights, etc.)
- Relocating / Burying electrical lines

#### **Exhibits Displayed at Public Meeting #1 included:**

- Open House Handout (provided in **Appendix G**)
- Strip map 1 – Wabash Avenue to Cambridge Court
- Strip map 2 – Cambridge Court to Outer Park Drive
- Strip map 3 – Outer Park Drive to just north of Ash Street
- Strip map 4 – Just north of Ash Street to just north of Campbell Street
- Strip map 5 – Just north of Campbell Street to South Grand Avenue



## 4.2. PUBLIC MEETING #2 SUMMARY

IDOT held a second public meeting on April 21, 2016 at the South Side Christian Church in Springfield, Illinois. The meeting was attended by 90 people. The purpose of the open house meeting was to display the seven alternatives developed by the PST; show strip maps of four alternatives that met the Purpose and Need; gather comments from the public regarding any concerns about these alternatives; and allow the public to voice any preference for an alternative. Exhibits, maps, and aerial photography of the study area were on display. Twenty-three written comments were received. The written comments are provided in **Appendix G**.



Recurring comments included:

- Improving drainage throughout the corridor;
- Providing bicycle accommodations along MacArthur Boulevard (Shared use path or dedicated bike lanes) and connect them to other such networks;
- Increase green space / aesthetics (sculptures / aesthetically pleasing Lights, etc.); and
- Adding bus shelters and / or “pull outs”

Twenty-three votes were cast for a preferred alternative from the meeting. The vote breakdown is as follows:

- One preferred Alternative 2
- Three preferred Alternative 3
- Eleven preferred Alternative 4
- Four preferred Alternative 5
- Three preferred Alternative 6
- One opposed Alternative 6

### **Exhibits Displayed at Public Meeting #2 included:**

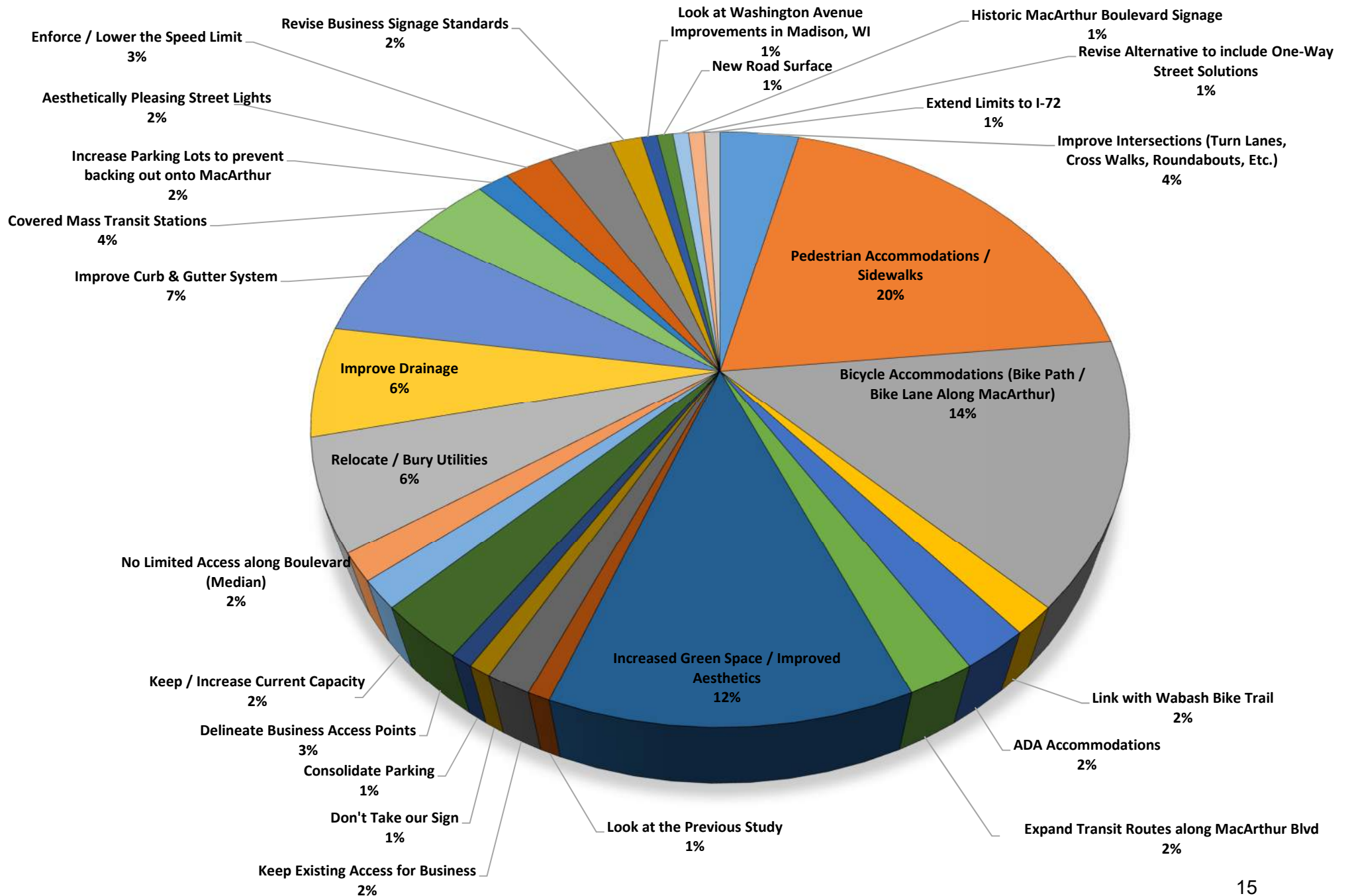
**Appendix G** contains the following materials from Public Meeting #2:

- Open House Handout
- Project Goals
- Project Development Process
- Response Chart PIM 1 – Pie chart showing public comments from Public Meeting #1
- Typical Sections: Exhibits showing existing and proposed alternative typical sections
- Alternative Comparison – Matrix displaying potential impacts and costs

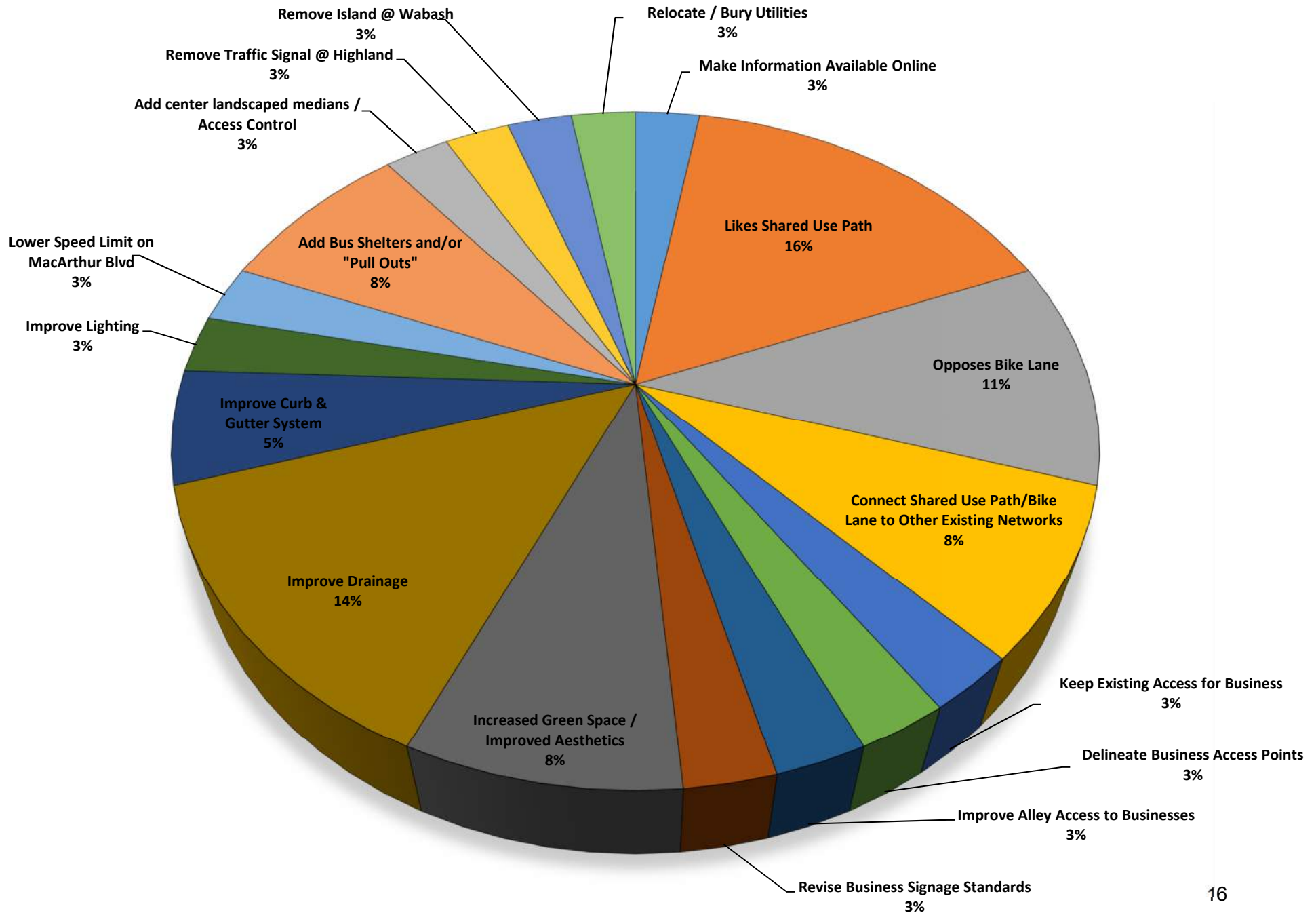
**Appendix F** (Proposed Conditions) contains plan sheets of the proposed conditions from the alternatives presented at the public meeting.



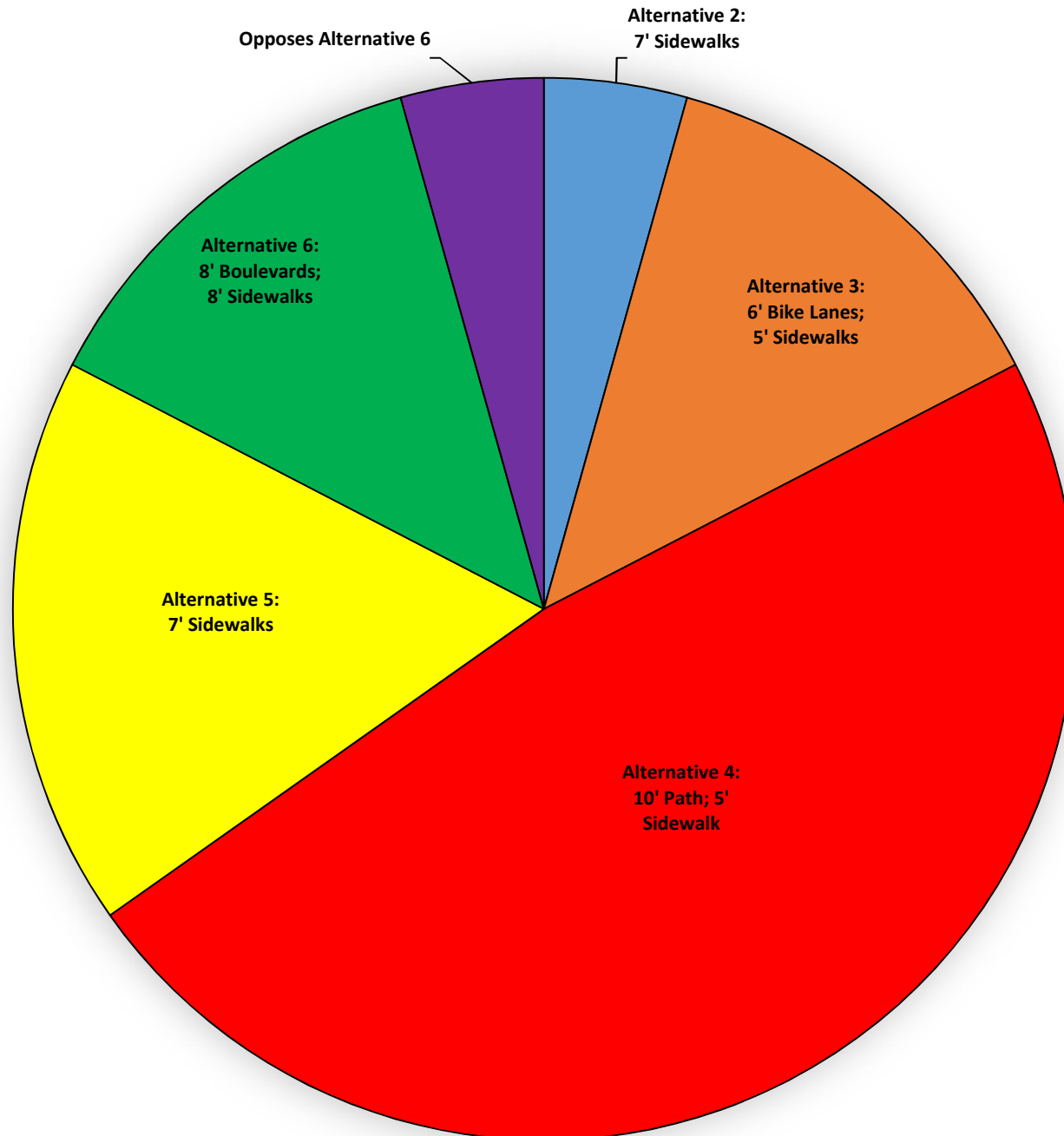
# Public Information Meeting 1 Responses



## Public Information Meeting 2 Responses



## Public Information Meeting 2 Alternative Choices



### 4.3. LOCAL MEETINGS

IDOT met with the Springfield City Council, the MacArthur Boulevard Association, and the Regional Planning Commission to discuss their comments and any concerns with the Feasibility Study. The following provides a summary of these meetings.

#### **Springfield City Council (Aug 2, 2017)**

- Alderman McMenamin discussed the history of the Feasibility Study and how it came to be, including a big push from the McArthur Boulevard Association.
- Alderman McMenamin discussed his concern for the potential impacts the presented alternatives could have on a large number of businesses, as well as delays which could occur in order to acquire right-of-way from those businesses.
- Mayor Langfelder inquired about the funding sources and timeline. IDOT noted there was no funding identified within the IDOT FY 2018-2023 Proposed Highway Improvement Program. The Phase I (Planning) stage will involve the Context Sensitive Solution (CSS) and input from stakeholders as well as establishment of a Community Advisory Group. Phase I could take from 18 to 24 months. Phase II (Design) could take 24 months. It was also noted it has not been determined if the project would be built as one contract or multiple contracts.
- Alderman Hanauer inquired as to what the City's portion to fund the project would be. While this has not been determined, it is a conversation that IDOT and the City will likely have to further discuss the direction of the project.

#### **MacArthur Boulevard Association (Aug 9, 2017)**

- The association would like the work to be done as soon as possible. They did not want to wait 10 years for the work to be done.
- Pedestrian access is important. It is difficult to walk safely to locations along the corridor.
- Some attendees suggested the city should take jurisdiction of the road to do the work more quickly, while others thought that the state would move faster than the city in getting the improvements done.
- The availability of funding is a major concern for all parties involved.

#### **Regional Planning Commission (Aug 23, 2017)**

- The commission stated that bikes should not be accommodated on MacArthur.
- Another alternative should be considered with only 5' sidewalks, putting bikes on a different route.
- Lakota Study recommended no bike accommodations on MacArthur. (*Note: The Lakota Study recommended parallel bike routes on low volume side streets and said "Bike lanes are not provided along the Boulevard due to its high vehicular travel speeds." However, the study said the improvement "should also be designed to be more pedestrian friendly in order to draw local residents who walk and bicycle as well as those who drive to shopping destinations." The study discussed improving access to the area for bicyclists and providing bicycle racks at various locations through the corridor.*)

- It was recommended to do the pavement and curb & gutter improvements now. The 8' sidewalk shown in the Lakota Study should be phased in as development is done on MacArthur.
- IDOT should consider the paving costs to be separate from the other improvements, since the roadway will need resurfaced no matter the improvement level.
- The committee asked for updates on the intersection improvements at Ash and Laurel. IDOT responded that the project is in the IDOT FY 2018-2023 Proposed Highway Improvement Program.

## 5.0 ENVIRONMENTAL REVIEW

The Illinois State Geological Survey (ISGS) completed a Preliminary Environmental Site Assessment (PESA) on February 15, 2017 for the project study area. The executive summary of the PESA Report can be found in **Appendix H**. The PESA report is a preliminary environmental assessment of natural and man-made hazards that may be encountered. The PESA report identifies and evaluates recognized environmental conditions (RECs) that may be indicative of releases or potential releases of hazardous substances on, at, in, or to the proposed project. Potential hazards were not verified by ISGS testing. Multiple RECS were identified within the project study area. If REC sites are impacted, soil testing may be required through the Preliminary Site Investigation (PSI) process.

## 6.0 ECONOMIC OVERVIEW

The improvement of MacArthur Boulevard will provide continuity of the roadway composition and pedestrian routes and improve the connectivity of the recent development to the south of this project's corridor to the established neighborhoods to the north. These aspects will in turn provide an economic benefit to the MacArthur Boulevard project corridor.

A more detailed analysis of the economic benefits and impacts will be conducted in the next phase of this study. For a feasibility level study, the following provides what a municipality could anticipate as a result of a roadway improvement such as MacArthur Boulevard. The IDOT Community Impact Assessment (CIA) Manual<sup>2</sup> provides a general overview of the economic benefit and impacts.

"Economic impacts pertaining to transportation projects are generally captured in the public or private sector as net losses or gains. From an economic standpoint, the impacts of a highway improvement can be classified in terms of direct, indirect or induced impacts. Direct impacts are those that produce immediate measurable changes such as increases in the number of on-site jobs available. Indirect impacts are those that result in some measurable net change in economic activity over time in a given community, which can be reasonably attributed to the development of the new highway improvement. An example of this would be increases in employment at off-site materials suppliers. Induced impacts occur as a result of direct and indirect impacts of new

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<sup>2</sup> Illinois Department of Transportation. 1 October 2007. Community Impact Assessment Manual.

employment and income resulting from successive rounds of spending. This can be seen in increased restaurant and other service employment. Major economic impacts due to a transportation project occur in both the public and private sector. In the private sector, employment and income levels change, thus affecting individuals and households, as well as retail, service, and manufacturing businesses. Economic impacts also occur on a secondary level; for example, in property value changes which may or may not be beneficial to the owner(s) or the community. Changes in transportation infrastructure often induce people to change their residences to take advantage of the new facilities. Businesses are also likely to locate or expand into areas offering improved access.

Overall, the economic effects of new or improved highway facilities are usually viewed positively in terms of generating new wealth or development. The efficient use of resources represents positive gains in the economy and the gross state product. Inadequate public capital formation, i.e., the lack of new highway facilities and/or inadequate maintenance levels, cause inefficiencies, delays and lost revenues. Nationwide, increases in public capital formation have been shown to account for as much as 17 percent of the change in aggregate income (Aschauer, 1989). Generally, infrastructure improvements such as new highway facilities, or widening and resurfacing projects, have a beneficial impact on businesses in the long run.”

Positive economic development improvements have already begun along the MacArthur Boulevard project corridor. The Hy-Vee grocery store has recently opened, which is a large scale grocery store. Large scale grocery stores are considered major traffic generators as they bring people to area. An increase in the number of people leads to the potential for other businesses to open in the same proximity. Anticipating this growth, the MacArthur Boulevard improvements will serve as a support for this overall growth.

## **7.0 ALTERNATIVE COMPARISONS**

After developing and showcasing the alternatives, the PST considered public comments about preferred alternative elements. The team also weighed the impacts these alternatives created against the identified project goals. Plan sheets illustrating the Proposed Conditions can be found in **Appendix F**.

MacArthur Boulevard is primarily zoned commercial along the street, with established residential zoning behind the row of businesses. The alternatives studied showed impacts to existing buildings along MacArthur Boulevard, necessitating a possible property acquisition. Impacts to buildings and parking were based on the typical sections of the alternatives and the right-of-way footprint. A few parcels would lose over 50 percent of their parking spaces as a result of some of the alternatives. This could be detrimental to a business. However, design exceptions and parking reconfigurations may mitigate these acquisitions. Further study will be required during the preliminary engineering phase.



As show in **Table 6**, Alternative 1, while being the cheapest, was dismissed because it did not provide any further pedestrian access along the route. Alternative 1 also kept the same design, meaning the northern third of MacArthur Boulevard remained a four lane roadway. Alternative 2 potentially impacted the least amount of buildings throughout the corridor, but the public did not favor this alternative. The public liked the use of bike lanes in Alternative 3, but this option came at a cost, both in dollars and amount of potentially impacted land. Alternative 4 was well liked for having a full-width separated bicycle facility off the roadway. The sidewalk located on the east side still maintained pedestrian accessibility on both sides of MacArthur Boulevard. Alternative 5 was liked by many for the ability to provide the “hybrid” multi use paths on both sides of MacArthur Boulevard. The business owners along the corridor liked the reduced footprint potentially interfering with fewer parking spots. The public voiced their concerns regarding the large footprint of Alternative 6. For safety reasons Alternative 7 was not studied further.

**TABLE 6: ALTERNATIVE COMPARISONS**

	Resurfacing	Resurfacing South; Widening north of Laurel	Bike Lanes	10' Bike Path (west); 5' Sidewalk (east)	7' Shared Use Path	8' Shared Use Path; 8' Boulevard	Narrow Lanes
	1	2	3	4	5	6	7
Total No. of Parcels	0	17	79	80	78	82	Not Studied Further Due to Safety Concerns
Total Acreage	Minimal	0.47	3.14	2.41	1.92	3.78	
Potential Impacted Buildings	0	3	26	15	9	32	
Land Acquisition (millions)	Minimal	\$2.5	\$14.0	\$11.0	\$10.0	\$15.5	
Construction Cost (millions)	\$2.5	\$4.0	\$12.1	\$10.7	\$10.6	\$10.8	
Total Cost (millions)	\$2.5	\$6.5	\$26.1	\$21.7	\$20.6	\$26.3	

NOTE: Potential Buildings Impacted and Potential Acres Impacted are approximations.  
Impacted values will be finalized during the next phase of the study.

## 8.0 FEASIBLE ALTERNATIVES

As this study highlights, multiple factors were assessed with the objective of recommending feasible alternatives to be studied further. The assessment conducted in this Feasibility Study identified the following. The public ranked alternatives 4 and 5 highest. As shown in **Table 6**, Alternates 4 and 5 do have impacts, but compared to other alternatives, the impacts are greater than some and less than others are. A Phase I study would evaluate how to minimize these impacts. Regarding cost, Alternatives 4 and 5 are not the cheapest nor the most expensive. Lastly, both Alternatives meet the goals of this Feasibility Study. With these combined factors, the PST recommends Alternative 4 and Alternative 5 to be studied further as part of a complete Phase I study.