

Alabama Department of Transportation
Highway Safety Improvement Program (HSIP)
Introduction to the HSIP Project Application Form

10/2/2015



The Alabama Department of Transportation (ALDOT) is pleased to provide this Highway Safety Improvement Program (HSIP) Project Application Form to assist your agencies in applying for funding for much needed highway safety projects across the State. Counties, cities, and various ALDOT offices may propose projects at any time during the year. **In order for HSIP projects to be selected for funding, ALDOT must confirm that the project application is complete and based on sound engineering principles.** All project applicants MUST coordinate their applications with their ALDOT Region Office. Once the Region Office reviews the application for completeness, it is forwarded to the ALDOT Office of Safety Operations (OSO) for final approval. The application is then forwarded to the Federal Highway Administration (FHWA) for coordination and funding approval.

Please note that one HSIP project application is REQUIRED for each type of project. Proposed project cannot include intersection(s) and road segment(s). If proposed project includes both, two (2) separate forms will need to be completed and submitted separately. However, up to three (3) highway safety countermeasures may be proposed for EACH project. For the purposes of this application, the term "countermeasure" means a proposed implementation action or safety-related improvement. If you have any questions about the HSIP Project Application Form, please contact your ALDOT Region Office.

The following items should be included in the HSIP Project Application to be considered "complete" by ALDOT.

- Cover letter from Project Sponsor Agency stating that the designated Contact Person is authorized to work with ALDOT on the project application and that non-federal matching funds will be made available for the HSIP project if it is selected for federal funding.
- HSIP Project Application Form - Worksheet 1 & Worksheet 2 (two pages) - signed by authorized representative of the sponsoring agency.
- Completed Questions Form
- For proposed intersection improvement projects - Drawing or map of intersection showing key features, safety problems and proposed countermeasures.
- For proposed road segment improvement projects - Drawing or map of project area showing key features, safety problems and proposed countermeasures.
- Labeled photos of project area with photo key showing location and orientation of photo
- Traffic data and traffic growth rate calculations
- For proposed intersection improvement projects - Intersection turning movement counts (OPTIONAL)
- Crash Summary Form and collision diagram
- For proposed traffic signal projects - submit traffic signal warrant worksheets
- If proposing a countermeasure that is not in the Improvement Table and spreadsheet, the applicant must provide information to support the service life and crash reduction factors (CRF) for the proposed countermeasure
- Preliminary project cost estimate with any supporting documentation for each proposed countermeasure. Also provide supporting documentation for estimated maintenance costs for each countermeasure.
- Engineering study for the proposed HSIP project signed by a Licensed Engineer in the State of Alabama
- Other data or information that supports the need for the proposed HSIP project (i.e. news articles, local government resolutions, etc.)


The HSIP Project Application Form requires data and information related to the location of the proposed project, the project sponsor agency and contact information, detailed description of the nature and location of proposed improvements, annual average traffic data (either for the intersection(s) or road segment(s)); detailed crash data (by type), detailed data on the potential reductions of crashes (by fatality, injury, and property damage categories), and other data. *Please refer to the "Guidance" tab for assistance. See also "Roadway Segment Example" and "Intersection Example" tabs for examples of completed worksheets.*

Please note: All crash data included in the ALDOT HSIP Project Application should be obtained from the CARE System (Critical Analysis Reporting Environment), where possible. For more information about the CARE system, please contact Waymon Benifield, (334)353-6404 or benifieldw@dot.state.al.us of the Safety Section of ALDOT's Modal Programs Office. CARE website - <http://care.cs.ua.edu>

For more information about the HSIP Program, please contact:

Sonya Baker
ALDOT Safety Engineering Manager
Office of Safety Operations
1110 John Overton Drive
Montgomery, Alabama 36110

Telephone: (334) 353-6468
E-Mail Address: bakers@dot.state.al.us

Alabama Department of Transportation Highway Safety Improvement Program (HSIP) Project Application Form (10/2/2015) Page 1 of 2										FOR ALDOT USE ONLY													
										Logged in: _____ Project Mgr. _____ HSIP Ref. #: _____													
1. Project Type:	Intersection	Yes	Road Segment	No	2. Sponsoring Agency:	City of Foley				Review Date:	_____	(for ALDOT use only)											
3. Project to be Administered By:	City of Foley			4. Contact Person:	Chad Christian	5. Phone Number:	251-970-1104			6. E-Mail Address:	cchristian@cityoffoley.org												
7. Street Address:	PO Box 1750			8. Fax: (optional)		9. ALDOT Region:	Southwest			10. MPO/RPO Area:	South Alabama RPO												
11. City, State, Zip :	Foley, AL 36536			12. Priority # (if submitting 2 or more forms):			1			13. Application submitted before?		No											
Note to Applicants: Each project must have a separate application form. Up to three (3) safety improvement actions may be included per application.		14. County	15. Route (including local name)		16. On State Hwy System?	17. Traffic Control	18. From (Cross Street, Milepost, Etc.):			19. To (Cross Street, Milepost, Etc.):													
		Baldwin	Foley Beach Express		No	Traffic Signal	County Road 12 S																
20. Functional Class Name (Federal):		3 - Rural Minor Arterial			21. Omitted		Omitted		22. Omitted		Omitted												
23. Risk Narrative - describe the safety problem(s) and the proposed project to address it.		The current configuration of intersection being considered by this project is signalized intersection where the NB and SB legs of the intersection are on a high speed four-lane divided highway with left turns to the EB and WB legs of the intersection. The left turns on the NB and SB legs have a negative offset presenting problems with sight distance and driver judgement of acceptable gaps in opposing traffic. The EB and WB legs are on a low speed two-lane highway without dedicated turn lanes in either direction. The existing signals for the left turn lanes on the NB and SB legs are the traditional 5 section "dog-house" style signals with protected/permissive left turns without flashing yellow arrows. The proposed countermeasures include removing the negative offset from the left turn lanes and modifying the signals to remove the 5 section signals and replace them with flashing yellow arrow 4 section signals and separate 3 section signals for through movements.																					
Crash Data (Items 24 - 34) - collision diagram is required for each application form	Crash Type		24.	25.	26.	27.	28.	29.	30.	31.	32. Total Related Crashes	33. Total Unrelated Crashes	34. Total Crashes										
	Severity		Head On	Angle																			
	Personal Injury (PI)	Fatal	K		1							1	0	1									
			A									0	0	0									
			B	1	1							2	1	3									
			C		1							1	2	3									
		PDO	PDO		2						2	7	9										
Total			1	5						6	10	16											
Traffic Data (Intersection Project)	36. Total ADT Entering Intersection		37. NB Entering ADT	38. SB Entering ADT	39. EB Entering ADT	40. WB Entering ADT	41. Other Leg Enter ADT	42. # of Approaches	43. ALDOT Node No.	44. Traffic Annual Growth Rate	35. Number of Years of Crash Data Used:		5										
			0	0	0	0	0	4	15115	3.0%													
Traffic Data (Road Segment Project)			Segment 1	Segment 2	Segment 3	Segment 4	Segment 5	Total/Average	<u>Worksheet Color Legend:</u> <table border="1"> <tr> <td>Blue</td> <td>Information to be input by Applicant</td> </tr> <tr> <td>Green</td> <td>Data Automatically Generated</td> </tr> <tr> <td>Yellow</td> <td>Drop-Down List (Choose Item)</td> </tr> <tr> <td>Orange</td> <td>For ALDOT's Use</td> </tr> <tr> <td>Gray or White</td> <td>No Information Required</td> </tr> </table>					Blue	Information to be input by Applicant	Green	Data Automatically Generated	Yellow	Drop-Down List (Choose Item)	Orange	For ALDOT's Use	Gray or White	No Information Required
	Blue	Information to be input by Applicant																					
	Green	Data Automatically Generated																					
	Yellow	Drop-Down List (Choose Item)																					
	Orange	For ALDOT's Use																					
	Gray or White	No Information Required																					
45. Seg. Length (mi)		0.000																					
46. Speed Limit		0																					
47. Average AADT		0																					
48. No. of Lanes		0																					
49. Lane Width		0																					

Alabama Department of Transportation
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Page 2 of 2



		50. No. of Countermeasures or Improvement Actions	2	51. Discount Rate (X.X%)	3.0%								
Items 52 - 58: Potential Reduction of Crashes (by type) and Total													
Proposed Countermeasures or Improvement Actions	Action No.	52. Proposed Countermeasure or Improvement Action	53. Service Life (in yrs)	54. Crash Reduction Factors (CRF)			55. K Crashes Reduced	56. A Crashes Reduced	57. B Crashes Reduced	58. C Crashes Reduced	59. PDO Crashes Reduced	60. Total Potentially Reduced Crashes	61. Annual Reduced Crashes by Countermeasure
				K	A, B, & C	PDO							
	1	Traffic Signal Improvement - Signal modification - Change from 5-section p/p left turn to FYA p/p left turn	20	0.25	0.25	0.16	0.25	0.00	0.50	0.25	0.32	1.32	0.26
	2	Channelization Improvements - Provide offset left turns (positive offset)	10	0.38	0.38	0.38	0.38	0.00	0.76	0.38	0.76	2.28	0.46
	3	No Improvement	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			20	0.54	0.54	0.48	0.54	0.00	1.07	0.54	0.96	3.10	0.62
			Max Service Life	Combined CRF			Potentially Reduced Crashes						
Project Schedule (After STIP Approval)		62. Begin PE Date (MM/YYYY)		08/2018	63. Target Ad Date (MM/YYYY)		12/2018	64. Begin Construction Date (MM/YYYY)		02/2019	65. Estimated Project Complete Date (MM/YYYY)		05/2019
Estimated Project Costs								Estimated Project Benefits					
Improvements		66. Design & Engineering Cost	67. R/W & Utility Cost	68. Construction and CE&I Cost	69. Maint. cost for service life of project	70. Total Project Cost	71. Annual Project Cost	Type of Crash		72. Annual Reduced Crashes by Type	73.* Cost per Crash (2017 \$)	74. Annual Benefit	
Action No.	1	\$ 2,000.00	\$ -	\$ 33,060.00	\$ -	\$ 35,060	\$ 2,357	K	0.11	\$ 196,100	\$ 20,983		
	2	\$ 24,500.00	\$ -	\$ 266,900.00	\$ -	\$ 291,400	\$ 34,161	A	0.00	\$ 196,100	\$ -		
	3	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	B	0.21	\$ 196,100	\$ 41,965		
								C	0.11	\$ 55,700	\$ 5,960		
TOTAL		\$ 26,500	\$ -	\$ 299,960	\$ -	\$ 326,460	\$ 36,518	PDO	0.19	\$ 9,200	\$ 1,763		
								75. Total Annual Reduction in Crashes	0.62	76. Total Annualized Benefit	\$ 70,671		
Calculation of Benefit/Cost (B/C) Ratio		Benefit	76. Total Annualized Benefit	\$70,671	77. Traffic Growth Factor	1.38	78. Total Annual Benefit	\$97,797					
		Cost	79. Annual Project Cost										
			\$ 36,518										
		80. Benefit/Cost Ratio:		2.68									
* Cost data from the North Carolina Department of Transportation (NCDOT) adjusted by the Consumer Price Index (CPI)													
Signature of Sponsor with Authority to Expend 10% Non-Federal Matching Funds													
Name (Print): _____ Signature: _____ Date: _____													

Alabama Department of Transportation
Highway Safety Improvement Program (HSIP) Project Application - Questions Form (10/2/2015)
Add additional sheets as necessary



1. Please describe in detail the specific location of the proposed HSIP project. Please identify whether project relates to an INTERSECTION or a ROAD SEGMENT. Please attach at least ONE sketch or map of the project area and at least ONE labeled photo describing the project area.

The proposed project is an INTERSECTION located on the Foley Beach Express at County Road 12 S in Baldwin County. The intersection is located on the Foley Beach Express south of Mifflin Road (CR-20) and north of CR-8, in the City of Foley.

2. Please describe in detail the identified safety problems at this location and the need for the proposed improvement(s).

The safety problems at this intersection arise from the divided median that exists at this location. With the mainline movement being a high speed roadway and having negative offset in the left turn lanes, the current configuration creates undesirable intersection sight distance and requires large gaps in oncoming traffic for left turning movements. A combination of driver error in judging these gaps and the potential for sight distance to be greatly reduced due to negative offset in the left turn lanes when vehicles are queued in the opposing storage lane create the need for the proposed improvements.

3. Please describe the proposed improvement action(s) or countermeasure(s) and document proposed improvements that do NOT have known crash reduction factors (CRFs), but are expected to reduce the risk of crashes.

The proposed countermeasures include removing negative offset and creating positive offset on the left turn lanes and modifying the traffic signals for the left turns to include the flashing yellow signals to get away from the 5 section "doghouse" style protected/permissive signals currently in-place at the intersection.

4. Please describe the other alternative solutions that were considered, implemented, or eliminated at this location.

Alternatives considered for this location include modifying the intersection signal to a protected left configuration or modifying the intersection geometry to an indirect left configuration. To date, no alternative solutions have been implemented or eliminated at this location.

5. Please describe how the project cost was calculated and how you can ensure the project can be completed within the proposed budget and schedule.

The project cost was calculated based on the pavement buildup and construction bid tab from an identical offset left-turn lane project performed at the intersection of Foley Beach Express at Mifflin Rd (CR-20). This project was completed in 2017 and the proposed budget and schedule should closely match this previous project.



DEPARTMENT OF TRANSPORTATION

Summary of Crashes at Proposed Improvement Location (Related, Unrelated, and Total Crashes)

10/2/2015)

RELATED CRASHES										
	AL Crash Report Number (DPS Case No.)	Date	Crash Severity (Check the most severe one)					DUI? (Y or N)	Crash Type	Comments
			Fatal (K)	Injury (A)	Injury (B)	Injury (C)	PDO			
1	3684799	9/17/2013	1					N	Angle	SB left turning vehicle crash with NB through vehicle
2	6649784	4/29/2016					1	N	Angle	NB left turning vehicle crash with SB through vehicle
3	6650682	5/1/2016			1			N	Head On	SB left turning vehicle crash with NB through vehicle
4	7656874	5/6/2017					1	N	Angle	NB left turning vehicle crash with SB through vehicle
5	7724860	10/20/2017				1		N	Angle	NB left turning vehicle crash with SB through vehicle
6	7735769	11/10/2017			1			N	Angle	NB left turning vehicle crash with SB through vehicle
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
UNRELATED CRASHES										
	AL Crash Report Number (DPS Case No.)	Date	Crash Severity (Check the most severe one)					DUI? (Y or N)	Crash Type	Comments
			Fatal (K)	Injury (A)	Injury (B)	Injury (C)	PDO			
31	7755403	12/18/2017					1	N	Head On	Fog misled driver into wrong way direction
32	7749051	12/5/2017					1	N	Angle	Ran traffic signal
33	7689950	7/31/2017					1	N	Sideswipe - Same Dir	Turning NB at same time and hit each other
34	7680071	7/6/2017					1	N	Angle	Failed to yield right of way
35	7631901	3/19/2017			1				Sideswipe - Opp Dir	Failed to yield right of way
36	6688488	8/2/2016					1	N	Sideswipe - Same Dir	
37	6684223	7/23/2016					1	N	Rear End	Misjudged stopping distance
38	6663802	6/2/2016				1		N	Angle	Ran traffic signal
39	6629608	3/11/2016				1		N	Rear End	Defective Equipment
40	5650171	5/10/2015					1	N	Rear End	Followed to close
TOTAL CRASH SUMMARY										
			Fatal	Injury A	Injury B	Injury C	PDO	Total	Legend:	
Total RELATED Crashes:			1	0	2	1	2	6	PDO - Property Damage Only	
Total UNRELATED Crashes:			0	0	1	2	7	10	DUI - Driving Under the Influence	
Total Crashes:			1	0	3	3	9	16		
Definitions: "Related Crashes" are those that can be addressed by the proposed safety countermeasures or improvement actions.										
"Unrelated Crashes" refer to crashes occurring at the proposed project location that cannot be addressed by the proposed countermeasure.										
"Total Crashes" is the sum of related and unrelated crashes at a specific location.										
Collision diagrams or maps should include all pertinent data related to the related crashes.										
Worksheet Color Legend:										
Blue - Information to be input by Applicant										
Green - Data Automatically Generated										
Yellow - Drop-Down List (Choose One)										