



# APPLICATION FOR STP-U FUNDS

PROJECT DEVELOPMENT, PRESERVATION, MODERNIZATION

## FY 2011-2013

Project Information			
<b>Project Title:</b>	Maxwell Road Overlay		
<b>Agency Applying:</b>	Lane County		
<b>Fiscal Year(s):</b>	2011/2012		
<b>Staff Contact:</b>	Shashi Bajracharya	<b>Phone/Email:</b>	682-6932
<b>Project Type:</b>	<input checked="" type="checkbox"/> Preservation	<input type="checkbox"/> Modernization	<input type="checkbox"/> Project Development
<b>Mode:</b>	<input checked="" type="checkbox"/> Roadway	<input type="checkbox"/> Transit	<input checked="" type="checkbox"/> Bike/Ped
<b>Project Description:</b>			
Maxwell Road beginning from River Road and ending at Prairie Road is a County Road, except for a segment between mp 1.086 to mp 1.282. This project provides a 2.5"-3" thick asphalt concrete overlay to preserve the existing asphalt concrete pavement. The overlay project will require minor manhole adjustments, cold plane, and necessary leveling courses on the County sections.			
<b>Description of Need or Problem</b>			
Maxwell road is an important arterial road, which provides a convenient connection between River Road, Highway 99, Northwest Expressway, and beyond for pedestrians, bicyclists, automobiles, and freights. It is a 3-lane road, curb and gutter, concrete sidewalks, and bike lanes on both sides of roadway. The pavement is subject to a significantly high truck volume; consequently, the pavement shows the signs of load related distresses. Longitudinal cracks along the wheel path are evident.			

Eligibility	YES	NO
<b>RTP</b> Is the project listed in, consistent with, or able to be added to financially constrained RTP, during project time frame?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Timeliness.</b> Does the agency have the ability to utilize funds in FY requested?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Federal Eligibility.</b> Is project eligible for STP-U funding under Federal guidelines <sup>1</sup>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Local Match.</b> Can agency provide minimum required matching funds (10.27% of project total)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Sufficient Funding.</b> Has sufficient funding been identified to complete project/phase	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<sup>1</sup> See <a href="http://www.lcog.org/documents/meetings/mpc/0609/MPC5f-Attachment1-FederalGuidelinesforSTP-U.pdf">http://www.lcog.org/documents/meetings/mpc/0609/MPC5f-Attachment1-FederalGuidelinesforSTP-U.pdf</a>		

Cost Estimate/Funding Needs		
<b>Total Estimated Project Cost</b>	\$700,000	
<b>Funding Available</b>	\$72,000	Source: Road Fund
	\$	Source:
	\$	Source:
<b>Amount of STP-U Request</b>	<b>\$628,000</b>	
Note: Total non-federal funding must meet minimum match requirement of 10.27% of Total Project Cost.		

Regional Priorities				
<input checked="" type="checkbox"/>	<b>PRESERVES EXISTING TRANSPORTATION ASSETS</b>			
<b>Goal:</b>	Meet a minimum Pavement Condition Index (PCI) on high volume Arterials, Collectors and Multi-Use Paths.			
<b>Measures:</b>	<b>Roadway</b> <input checked="" type="checkbox"/>	<b>Transit Route</b> <input type="checkbox"/>	<b>Bike Lanes</b> <input checked="" type="checkbox"/>	<b>Multi-Use Path</b> <input type="checkbox"/>
	<b>Functional Class:</b>	Minor Arterial	<b>Transit Volume:</b>	
	<b>PCI:</b>	78	<b>Freight Volume:</b>	500-1,050
	<b>Traffic Volume:</b>	7,000-15,000	<b>Bike/Ped Counts:</b>	120
<b>Qualitative Assessment:</b>				
According to the 2010 pavement inspection report the roadway is beginning to show the signs of distress; about 13% of the distresses is load related. A recent vehicle classification count on the road indicates truck traffic on these roads is as high as 8%, mostly delivery vehicles. At this level of heavy delivery vehicles that are required to stop frequently (skid impact) together with the longitudinal cracks on the surface, the existing PCI is expected to go down rapidly below 60 if not treated in time. An asphalt concrete overlay to seal the cracks and strengthen the pavement is needed to keep pavements in repair.				

Regional Priorities				
<input type="checkbox"/>	<b>PRESERVES OR ENHANCES TRANSIT SERVICES</b>			
<b>Goal:</b>	Maintain or increase transit ridership.			
<b>Measures:</b>	<b>Existing ridership:</b>	0	<b>Proj. ridership</b>	0
	<b>Existing service hrs:</b>	0	<b>Proj. service hrs:</b>	0
	<b>Ex. area of service:</b>	0	<b>Proj. service area:</b>	0
	<b>Title VI Issues:</b>		<b>Title VI Issues:</b>	
<b>Qualitative Assessment:</b>				
Currently, transit service is not available on this road. LTD bus route # 54 crosses Maxwell Road at Grove Street and N Park Ave. This project is not likely to influence LTD's bus service on this road.				

Regional Priorities				
<input checked="" type="checkbox"/>	<b>IMPROVES SAFETY</b>			
<b>Goals:</b>	Reduce the number and severity of accidents involving pedestrians, bicyclists, and/or vehicles. Address areas perceived to have safety issues to increase the use of multi-use paths.			
<b>Measures:</b>	<b>Roadway</b> <input checked="" type="checkbox"/>	<b>Multi-Use Path</b> <input type="checkbox"/>	<b>Sidewalk</b> <input checked="" type="checkbox"/>	<b>Mixed</b> <input type="checkbox"/>
	<b>Vehicular Crash Data:</b>	6	<b>Traffic Volume:</b>	7,000-15,000
	<b>Bicycle Crash Data:</b>	NA	<b>Transit Volume:</b>	0
	<b>Ped. Crash Data:</b>	NA	<b>Bike/Ped Counts:</b>	200 estimated
<b>Qualitative Assessment:</b>				
Pavement surface conditions and riding qualities are related. There are six crashes reported in the last three years, involving same directional crash. These crashes could be linked with the pavement roughness conditions. This project significantly improves pavement surface quality in terms of providing better traction and braking capability. The overlay project eliminates potholes, rutting, and other undesirable elements on the pavement surface. Therefore, the project is expected to increase roadway safety for bicyclist and automobile users. The project also plans to provide durable and highly reflective thermoplastic pavement marking that enhance roadway safety.				

## Regional Priorities

### REDUCES GREENHOUSE GAS EMISSIONS

**Goals:** Reduce greenhouse gas emissions by reducing congestion, increasing operational efficiency, supporting alternative modes, and managing transportation demand.

<b>Measures:</b>	Congestion Reduction <input checked="" type="checkbox"/>	Operational Efficiency <input checked="" type="checkbox"/>	Alternative Modes <input checked="" type="checkbox"/>	Trans. Demand Management (TDM) <input type="checkbox"/>
	EXISTING		PROJECTED	
	<b>Traffic Volume:</b>	Avg. 11,500 (ranges 8,000-15,000)		
<b>VMT:</b>	16,800		17,500	
<b>Freight Volume:</b>	210		250	
<b>Transit Volume:</b>	0		0	
<b>Bike/Ped Counts:</b>	Bike=60, pedestrian =60 (estimated)			
<b>Travel Time:</b>				
<b>Congestion Index:</b>				
<b>Hours of Delay:</b>				
<b>Walk Mode Share:</b>	1%		1.5%	
<b>Bike Mode Share:</b>	1%		1.5%	
<b>Transit Mode Share:</b>	0			
<b>Carpool Mode Share:</b>	0			
<b>Transit Service Hrs:</b>	0			
<b>Sidewalk Miles:</b>	2.0			
<b>Bikeway Miles:</b>	2.8			
<b>Priority Bikeway Miles:</b>	0			

**Qualitative Assessment:**

The existing sidewalk and bike lanes are frequently used by users. Improved bike lane with highly visible pavement markings proposed in the project is likely to encourage bike riding and contribute towards greenhouse emission reduction efforts.

Additional Project Benefits	
<b>Connectivity</b>	Will completed project fill in key gaps in the transportation system, complete system components, or provide better pedestrian, bicycle, or roadway connectivity at a regional scale?
This project does not impact connectivity. However, failure to keep the road in repair may impact the existing freight connectivity.	
<b>Measures:</b>	
<b>Multiple Modes</b>	How will completed project benefit more than one mode or purpose (i.e., roadway & transit, bicycle & roadway users, or roadway & identified freight route)?
The roadway has bike lanes and sidewalks on both sides of the roadway for a significant length. A recent vehicle classification count shows about 60 bike users on average per day.	
<b>Measures:</b>	
<b>Congestion Reduction</b>	Will completed project reduce congestion through provision of additional capacity or critical link or other means?
<b>Measures:</b>	
<b>Freight</b>	Will completed project improve the freight system and freight movement?
It will improve on time delivery of goods and services to the project area residents.	
<b>Measures:</b>	
<b>Public Health</b>	Will the completed project provide public health benefits?
Improved pavement condition reduces noise and gas emission. Public health is indirectly benefitted.	
<b>Measures:</b>	
<b>Other</b>	Are there other benefits that the completed project will provide?
<b>Measures:</b>	

Other Project Information	
<b>Scope of improvement, i.e., regional, community, neighborhood, local</b>	
Regional	
<b>Ratio of STP-U Overhead to Overall Project Cost</b>	
low	
<b>Opportunity Costs, i.e., cost of not doing activity/project</b>	
Deferring periodic maintenance can result in a high cost rehabilitation project. A full rehabilitation project cost three times as much as a preservation project.	
APPLICATION DUE DATE: 5:00 PM, Wednesday, May 18, 2011	
PLEASE SUBMIT APPLICATION ELECTRONICALLY TO PAUL THOMPSON, LCOG <a href="mailto:pthompson@lcog.org">pthompson@lcog.org</a>	

**Maxwell Road Overlay Project  
MP 0 to 1.605  
Estimated Road Fund Cost \$72,000**



**Project Scope: Overlay roadway section with a 2” thick asphalt concrete including roadway profile corrections where needed**

<b>Project Limit</b>	MP 0 to 1.605	<b>Road Name</b>	Maxwell Road
<b>Functional Class</b>	Minor Arterial	<b>Project Status</b>	Proposed
<b>Length</b>	1.585 mile	<b>Project Category</b>	Pavement Pres.
<b>Funding Status</b>	Un-Funded		

**Existing Roadway Condition**

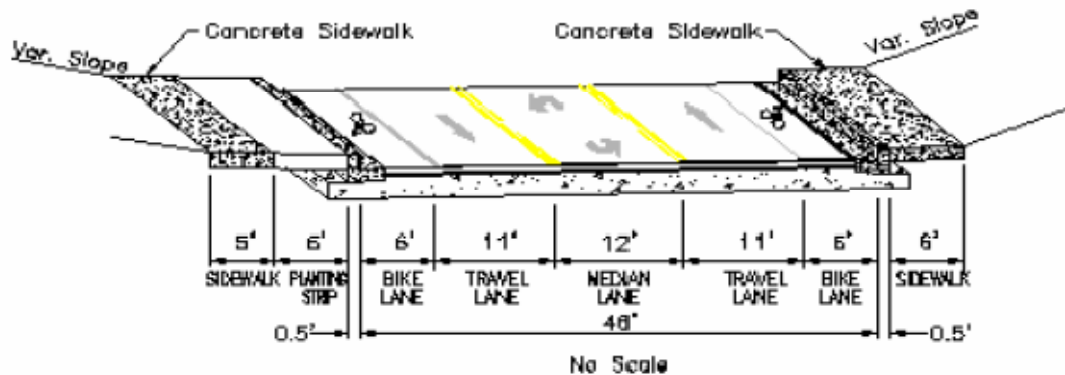
<b>ADT</b>	7,000-15,000	<b>Crash Rate</b>	
<b>Pedestrian Traffic</b>	50 estimated	<b>Shoulders</b>	☐
<b>PCI</b>	78	<b>Curbs</b>	☒
<b>Width</b>	48 feet	<b>Bike Lanes</b>	☒
<b>Right of Way</b>		<b>Sidewalks</b>	☒
<b>Pavement Type</b>	Asphalt Concrete	<b>Lanes</b>	2-3 lanes



**Define the Problem**

The annual pavement inspection revealed longitudinal cracks along the wheel paths of the roadway. These types of cracks indicate load related pavement distress that calls for

**Existing Roadway Section**



**Maxwell Road Overlay Project  
MP 0 to 1.605  
Estimated Road Fund Cost \$72,000**



attention. The latest pavement inspection reported PCI of 78 and load related distress of about 13%. If not addressed soon, the pavement rating may slip below 60 at which point a more expensive pavement treatment will be needed.

**Proposed Solution**

Considering the high traffic volume and type of vehicles the roadway serves, an overlay of 2” traditional asphalt concrete overlay is proposed. Asphalt concrete overlay seals cracks and strengthens the pavement for heavy vehicle uses.

**Project Cost (\$,000s)**

PROJECT ELEMENT	TOTAL	FY 11	FY 12	FY 13	FY 14	FY 15
Preliminary Engineering	\$61	\$61				
Right-of-way Phase						
Construction Engineering	\$31		\$31			
Construction <sup>1</sup>	\$608		\$608			
Utility relocation						
<b>Total Cost</b>	<b>\$700</b>	<b>\$61</b>	<b>\$639</b>			

**Funding Source (\$,000s)**

FUND SOURCE	TOTAL	FY 11	FY 12	FY 13	FY 14	FY 15
Road Fund (Local Match)	\$72	\$72				
Un-funded	\$628		\$628			
<b>Total Fund</b>	<b>\$700</b>	<b>\$72</b>	<b>\$628</b>			

**Factors for Project Selection<sup>2</sup>**

Safety Improvement	<input type="checkbox"/>	<input type="checkbox"/>	Plan Consistency	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Structural Capacity Enhancement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Economic Development	<input type="checkbox"/>	<input type="checkbox"/>
Congestion Improvement	<input type="checkbox"/>	<input type="checkbox"/>	Supports Tourism, Recreation	<input type="checkbox"/>	<input type="checkbox"/>
Provides Bike /Ped Connectivity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Preserves Bridge / Pavement	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Leverages Other Projects/Funds	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Has Public Requests / Support	<input type="checkbox"/>	<input type="checkbox"/>
Degree of Users Benefit	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Total Factors Considered		<b>7</b>

<sup>1</sup> This project is a priority from a road maintenance perspective. Lane County is exploring external funding opportunities to fund this project.

<sup>2</sup> The selection factors shown here are for informational purposes only. Pavement Overlay projects are prioritized based on the Pavement Condition Index (PCI) rating system, annual pavement inspection and reporting.

**Maxwell Road Overlay Project  
BMP 0 to EMP 1.605**

ITEM	UNIT	QTY.	UNIT PRICE	TOTAL
<b>TEMPORARY FEATURES AND APPURTENANCES</b>				
MOBILIZATION	LS	1	\$20,000.00	\$20,000.00
TEMPORARY PROTECTION AND DIRECTION OF TRAFFIC	LS	1	\$10,000.00	\$10,000.00
TEMPORARY SIGNS	SF	1,000	\$10.00	\$10,000.00
TEMPORARY BARRICADES, TYPE II	EACH	20	\$50.00	\$1,000.00
TEMPORARY BARRICADES, TYPE III	EACH	10	\$100.00	\$1,000.00
TEMPORARY PLASTIC DRUMS	EACH	30	\$50.00	\$1,500.00
PORTABLE CHANGEABLE MESSAGE SIGNS	EACH	2	\$3,000.00	\$6,000.00
FLAGGERS	HOUR	800	\$45.00	\$36,000.00
EROSION CONTROL	LS	1	\$500.00	\$500.00
INLET PROTECTION	EACH	34	\$75.00	\$2,550.00
POLLUTION CONTROL PLAN	LS	1	\$500.00	\$500.00
<b>ROAD WORK</b>				
REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LS	1	\$500.00	\$500.00
<b>DRAINAGE AND SEWERS</b>				
MINOR ADJUSTMENT OF MANHOLES	EACH	39	\$800.00	\$31,200.00
ADJUSTING BOXES	EACH	5	\$500.00	\$2,500.00
<b>BASES</b>				
COLD PLANE PAVEMENT REMOVAL, 0 - 2 INCHES DEEP	SY	10,500	\$4.00	\$42,000.00
AGGREGATE SHOULDERS	TON	100	\$20.00	\$2,000.00
<b>WEARING SURFACES</b>				
LEVEL 3, 1/2 INCH DENSE HMAC (Includes HMAC Repair Backfill)	TON	5,000	\$50.00	\$250,000.00
LEVEL 3, 3/8 INCH DENSE HMAC	TON	100	\$65.00	\$6,500.00
6 INCH ASPHALT CONCRETE PAVEMENT REPAIR (3% of area)	SY	1,200	\$30.00	\$36,000.00
EXTRA FOR ASPHALT APPROACHES	EACH	3	\$350.00	\$1,050.00
CONCRETE CURBS, STANDARD (GUESS ONLY)	FOOT	55	\$30.00	\$1,650.00
CONCRETE WALKS	SF	350	\$6.00	\$2,100.00
<b>PERMANENT TRAFFIC SAFETY AND GUIDANCE DEVICES</b>				
GUARDRAIL ITEMS UNKNOWN AT THIS TIME (GUESS)	LS	1	\$20,000.00	\$20,000.00
THERMOPLASTIC, NON-PROFILE, 120 MILS, EXTRUDED, (guess)	FOOT	55,000	\$0.90	\$49,500.00
PAVEMENT LEGEND, TYPE B: Arrows	EACH	13	\$250.00	\$3,250.00
PAVEMENT LEGEND, TYPE B: "SCHOOL"	EACH	2	\$600.00	\$1,200.00
PAVEMENT LEGEND, TYPE B: "X-ING"	EACH	2	\$600.00	\$1,200.00
PAVEMENT LEGEND, TYPE B: Bicycle Lane Symbols	EACH	19	\$350.00	\$6,650.00
PAVEMENT BAR, TYPE B-HS	SF	810	\$9.00	\$7,290.00
<b>PROJECT SUB-TOTAL =</b>				<b>\$553,640.00</b>
CONTINGENCIES @10%=				<b>\$55,364.00</b>
CONSTRUCTION COST=				<b>\$609,004.00</b>
PRELIMINARY ENGINEERING @10%=				<b>\$60,900.40</b>
CONSTRUCTION ENGINEERING @5%=				<b>\$30,450.20</b>
<b>TOTAL PROJECT COST=</b>				<b>\$700,354.60</b>