



**Development of SUATS Transportation Improvement Program (TIP)
Project for FFY 2017-2022**

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Development of Sumter Transportation Improvement Program (TIP) Project for FFY 2017- 2022

Introduction

Sumter Transportation Improvement Program(TIP) is funded by the SCDOT Guides share program in which the SC State DOT allocates the federal transportation funding to 11 Metropolitan Planning Organizations (MPO) and 10 Council of Governments (COG) statewide by a formula which is based upon the latest 2010 population Census. For the period of FFY 2014-2019, Guides share amount for SUATS is approximately \$2.5 million.

Collective of all 11 MPOs and 10 COGs TIP projects are organized under the State Transportation Improvement Program (STIP). Each recipient must update their own TIP by July 2016 for FFY 2017 – 2022 and then all projects will be submitted to the State Commission for approval and adoption in August 2016.

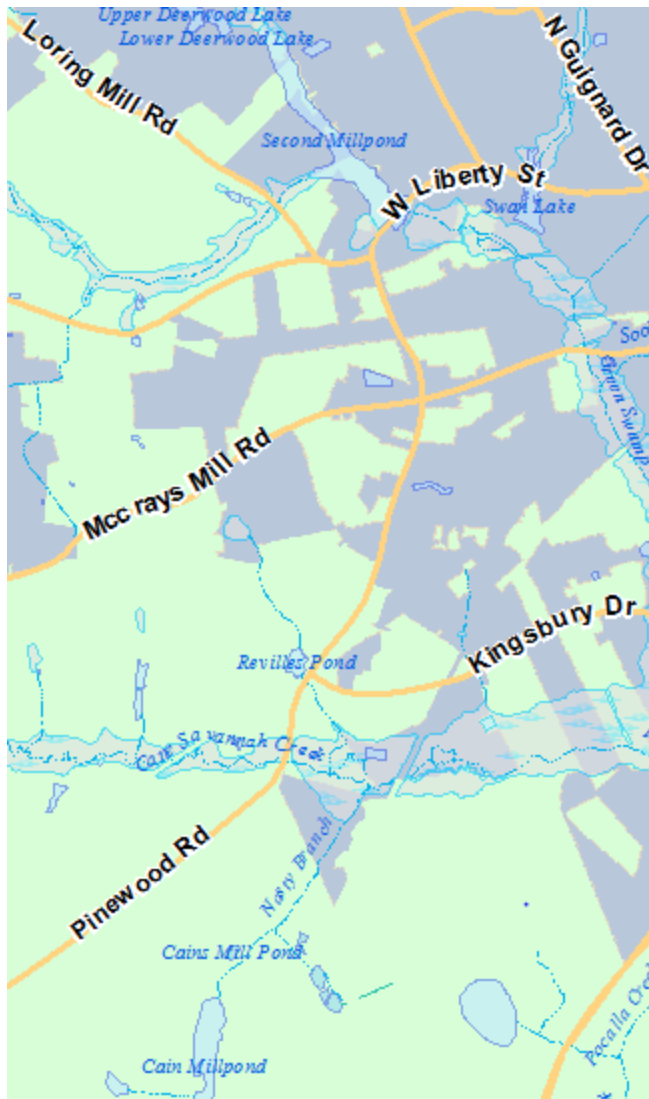
Each funding recipient must select a project from its Long Range Transportation Plan (LRTP) by July this year. Sumter Urban Area Transportation Study (SUATS) MPO in 2013 selected a roadway resurfacing and intersections improvement project on Broad Street between Wesmark Blvd and Bultman Drive. These were the Project Priority Ranking #1 and #2 projects in SUATS, LRTP 2010-2040.

In late January 2016, SCDOT requested SUATS to update the TIP for FFY 2017-2022. To this end, SUATS has selected the candidate project from the priority list of SUATS LRTP 2010-2040 for the SUATS Technical Coordinating Committee (Study Team) to review for SUATS TIP implementation. The candidate project is ranked the top third of the Project Priority Lists. The other top two projects were selected to for intersection improvements and roadway resurfacing in 2013.

Upon consensus from the Study Team, the candidate project will then be recommended to Policy Committee to adopt the project into SUATS TIP.

Candidate Project

Safety Improvements on Pinewood/McCrays Mill Road near intersection corridor



Existing Conditions

Pinewood Road (SC Route 120)

Pinewood Road (SC- Route 120) is an arterial running north and south. This road intersects with McGrays Mill Road (Route 33) which runs east and west and is controlled by traffic signal lights. The northern leg of this intersection are retail and commercial establishments with two major grocery supermarkets, two gas stations, McDonald fast food restaurant, Rite Aide pharmacy store and several retail stores. On the southern leg of this intersection on Pinewood are gas station, bank, fast food restaurant, single family homes, Tuomey Outpatient clinic and other retail stores.

Due to the concentration of these commercial entities, heavy traffic volume is expected on this corridor. In accordance with the SCDOT traffic volume data, the average annual daily traffic volume (AADT) in 2015 was 18,700 on the northern leg and 9,600 on the southern leg. Furthermore, the projection of growth rate to 2040 on this corridor is 1% and 1.41% on the northern and southern legs respectively. There were 25 accidents on Pinewood in 2015 almost a double the number of incidents of 13 in 2014. All these accidents were near or at the access points on Pinewood Road.

Currently there are 15 curb cuts on the northern leg within 0.2 mile from the intersection whereas there are 12 curb cuts on the southern leg.

McCrays Mill Road (Route 33)

McCrays Mill Road (Route 33) is an arterial and intersects Pinewood Road running east and west. The eastern leg of this road carries AADT 8,000 traffic volume whereas the western leg of this road carries about AADT 11,600 traffic volume in 2015. The projected growth rate on this road to 2040 is 2.5% and 1% per annum on eastern and western legs respectively. The eastern leg of this road connects with numerous retail stores, banks and Walgreen pharmacy store. The western leg of McCrays Mill Road gives access to gas station, a grocery supermarket, several fast food restaurants, bank and retail stores. There were 14 crashes on McCrays Mill Road in 2015. All these accidents were near or at the access points on McCrays Mill road.

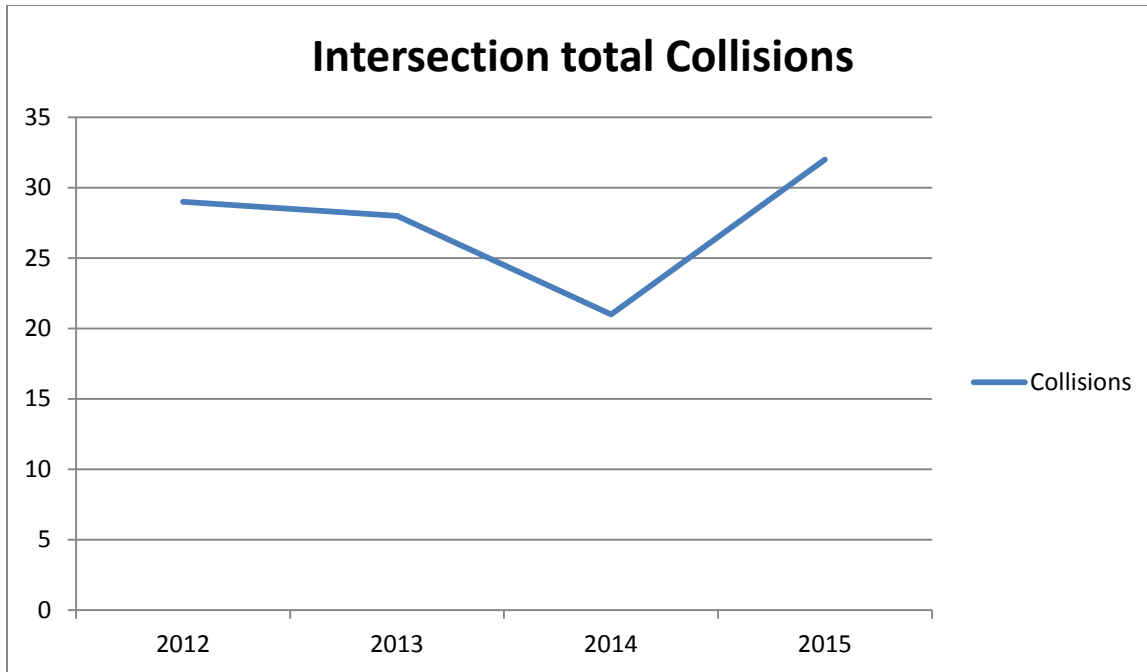
Currently there are 20 curb cuts on the eastern leg and 14 on the western leg within 0.2 mile from the intersection.

Traffic Problems

In accordance with the Public Safety Department crash data, the total number of crashes from 2012 to 2015 is 110 at or near this intersection. A 52% increase in the number of accidents was found from 2014 to 2015. No wonder this intersection has been placed on the top #3 priority of projects for overall ranking for improvements in SUATS LRTP 2010-2040.

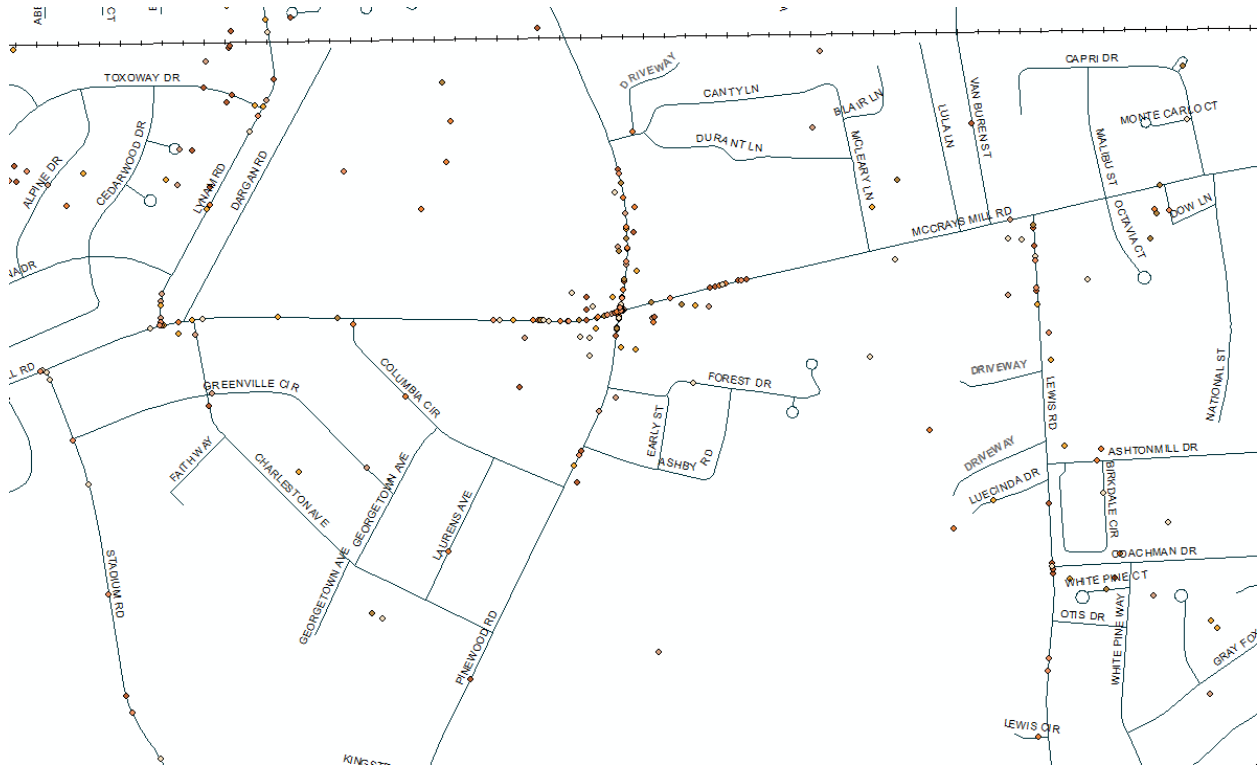
The posted speed limit is 45 mph on McCrays Mill Road and 40 mph on Pinewood.

On an average day, 47,900 vehicles enter the intersections of McCrays Mill Road and Pinewood Road in 2015 and this number is projected to increase to 63,500 in 2040. While the number of accidents cannot be projected for the future for such high volume traffic, the past history at the intersection (2012 to 2015) reveals the trend of collisions has been increasing as shown in the graph below.



For the past four years, 2012 to 2015, there were a total of 110 incidents of crashes with no fatal injuries but 51 non-fatal injuries. The month of January has the highest accident occurrences and Friday is the day of the week with most accidents. Nearly half of the crashes were caused by “failure to yield Right of Way”, “Distraction/Inattention such as using cell phones” is the second highest cause and “Improper Lane Usage/Change” is the third. Majority of accidents occurred between noon and 6 PM.

As identified in the SUATS LRTP, the access points at and near the intersections create many conflict movement points. As shown in the map below, majority of accidents occur along the access points on the commercial corridor on Pinewood Road and McCrays Mill road.



Recommendations for Roadway Function and Safety Improvements

The commercial corridor both on Pinewood Road and McCrays Mill Road could reduce the number of crashes and the function of roadway by:

- Consolidate and better define driveways with curb and gutter to combine turning movements, increase safety, limit driver confusion and ease congestion
- Move or consolidate driveway access away from intersections
- Improve on-site traffic circulation
- The median turn lanes both on Pinewood and McCrays Mill should be replaced with landscaped or raised median with U-turn and right-in/right-out access to control access and increase safety.
- Install barriers (on marked Chevron signs on roadway surface pavement) to separate the exclusive left turn lanes and the thru movement lanes
- Retime the traffic signal lights to accommodate current moving and turning traffic volumes.

