

RESEARCH PROBLEM STATEMENT

DATE: 9/25/2020 **PROJECT AREA:** Special Projects

TITLE: Surface Treatment for Bridge Joints

PROBLEM STATEMENT:

During large pedestrian events where masses of people walk the streets such as "Race for the Cure", I have seen big people slip and fall on the bridge joints that were still moist with dew. The type of joint noted here was a finger joint on the Broadway Bridge. I am sure that other steel bridge joints would also be slick when wet with dew. The bigger the joint the more potential for a slick surface area that might have slippage consequences for traffic and bicycles - as well as pedestrians. I was not able to stick around to see how badly the lady was hurt as she did have a lot of people helping her. She fell all the way to the bridge deck and landed with her knee on the large steel finger joint. I am proposing that some sort of roughening or surface additive be applied to the exposed deck side surface of bridge joints so that surface friction may be maintained for all users of the bridge at all times.

OBJECTIVES:

Look at surface additives of different types that will have a long service life to be applied to bridge joints to alleviate slippage. Also look at methods of roughening the joint surface which may provide a more permanent and longer lasting anti-slippage surface. Investigate any other methods of creating an anti-slip type of surface for joints.

FORM OF RESEARCH IMPLEMENTATION AND RETURN ON INVESTMENT:

The method of implementing a surface treatment is to be determined. Benefits include reducing the number of personal injuries to pedestrians and bicyclists. A reduction in auto and motorcycle accidents may be realized where vehicles skid due to the slick surface of a joint.

Estimated Project Duration: 12 Months

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Standing Subcommittee
Ranking

8/9

Advisory Council
Ranking

27

Statement Combined with
Statement Number(s)