

### Broadway Traffic Signals at Millard Street and Guilderland Avenue

**PROJECT LOCATION(S):** City of Schenectady on Broadway at the intersections of Millard Street and Guilderland Avenue

**SPONSOR(S):** City of Schenectady

**FACILITY OWNER(S):** City of Schenectady

**DETAILED DESCRIPTION:** Replace traffic signals at two intersections using 12 inch signal heads with back plates and add high visibility crosswalks, pedestrian signals, countdown timers and pedestrian pushbuttons.

**PROPOSED TIP DESCRIPTION:** Broadway at Millard Street and Guilderland Avenue: Traffic Signal Replacement

**HSIP REQUESTED (INCLUDES MATCH AND INFLATION):** \$0.355 M

**TOTAL PROJECT COST (INCLUDES OVER MATCH AND INFLATION):** \$0.355 M

**DESIGN LIFE OF PROPOSED PROJECT (YEARS):** 10

**PAVEMENT CONDITION:** Broadway @ Millard St: 5, Broadway @ Guilderland Ave: 6 (2015)

**NHS AND FUNCTIONAL CLASS:** NHS: No, FC: 16 Urban Minor Arterial

**TRAFFIC OR OTHER VOLUME DATA:** NYSDOT RIS: 21,763 AADT (2013) near Guilderland Ave, 19,818 AADT (2011) near Millard St

<b>PROJECT TOTAL SCORE (UP TO 100 POINTS)</b>	<b>19.1</b>
MERIT CATEGORY SCORE SCALED *	17.3
SAFETY B/C RATIO FROM SPONSOR (MAX. 50)**	1.8

\*See page 2 for individual merit category scores.

\*\*B/C ratio cost does not include inflation.

<b>BENEFIT/COST RATIO (CALCULATED WITH USER BENEFITS)</b>	<b>1.6**</b>
Total Benefits (\$1,000's/Year)	75
Safety User Cost	75 0
Annualized Cost (\$1,000's/Year)	48

\*\* B/C with user benefits is lower than

**HSIP ELIGIBILITY:** HSIP eligibility assessment has not yet been completed. NYSDOT Region 1 will need to ensure that the existing signals are warranted and that the proposed project provides acceptable crash reduction. As proposed, the project intends to reduce the number of rear end crashes (which are 62% of the total crashes) occurring at both traffic signals. The crash rate is 1.22 crashes/million entering vehicles (MEV) at Millard Street (5.3 times the Statewide Average of 0.23 crashes/MEV) and 0.90 crashes/MEV at Guilderland Ave (3.3 times the Statewide Average of 0.27 crashes /MEV). The rates include both reportable and non-reportable crashes.

**PROPOSED PROJECT SCHEDULE:** Complete Preliminary Engineering October 2016 as part of S223 (PIN 1759.95): Schenectady City Pavement Preservation Project which includes Mill & Fill on both Guilderland Avenue and Broadway, Complete Detailed Design February 2017, Complete Construction November 2017. No Right of Way is required.

**OTHER CONSIDERATIONS:** Project supplements an existing pavement preservation project (PIN 1759.95) with needed pedestrian and vehicular safety improvements. The lack of signal head visibility is believed to be a contributing factor towards the high crash rate. The preliminary engineering cost is assumed to be 9% vs. the normal 18% as design is being incorporated into S223. High efficiency LED signal heads will save energy and utility costs.

MERIT CATEGORIES		NUMERIC VALUES			SCORE
REGIONAL BENEFIT (5 POINTS POSSIBLE)					
Benefit beyond project to transportation system or quality region	SCORE	-2	to	+5	1
	SUBTOTAL	-2	to	+5	1
COMMUNITY QUALITY OF LIFE & EQUITY (10 POINTS POSSIBLE)					
Land Use Compatibility	SCORE	-1	to	+3	0
Smart Growth	SCORE	-1	to	+3	2
Environmental Justice	SCORE	-1	to	+2	2
Accessibility / ADA / Universal Design/Human Services Transport	SCORE	-1	to	+2	1
	SUBTOTAL	-4	to	+10	5
APPROPRIATE INFRASTRUCTURE (10 POINTS POSSIBLE)					
Preservation/Renewal of Existing	SCORE	-2	to	+5	0
Complete Streets	SCORE	-2	to	+5	2
	SUBTOTAL	-4	to	+10	2
MULTI-MODALISM (10 POINTS POSSIBLE)					
Transit	SCORE	-2	to	+5	3
Pedestrian	SCORE	-1	to	+3	3
Bicycle	SCORE	-1	to	+2	2
	SUBTOTAL	-4	to	+10	8
ENVIRONMENT & HEALTH (8 POINTS POSSIBLE)					
Sensitive Area Preservation/Mitigation	SCORE	-1	to	+2	0
Greenhouse Gas Emissions Reduction	SCORE	-1	to	+2	0
Alternative Fuels Support	SCORE	-1	to	+2	0
Other Health Benefit	SCORE	-1	to	+2	1
	SUBTOTAL	-4	to	+8	1
ECONOMIC DEVELOPMENT (5 POINTS POSSIBLE)					
Economic Impact	SCORE	-2	to	+5	1
	SUBTOTAL	-2	to	+5	1
SAFETY & SECURITY (5 POINTS POSSIBLE)					
Additional Safety Benefit Beyond Crash History	SCORE	-1	to	+3	2
Security and Resiliency to Natural Hazards and Human Caused Events	SCORE	-1	to	+2	0
	SUBTOTAL	-2	to	+5	2
OPERATIONS & TECHNOLOGY (5 POINTS POSSIBLE)					
Traffic Operations & Reliability Improvements	SCORE	-1	to	+3	2
Use of Beneficent Advanced Technologies	SCORE	-1	to	+2	1
	SUBTOTAL	-2	to	+5	3
FREIGHT (5 POINTS POSSIBLE)					
Freight and Goods Movement	SCORE	-2	to	+5	0
	SUBTOTAL	-2	to	+5	0
INNOVATION (2 POINTS POSSIBLE)					
Innovative Solutions	SCORE	0	to	+2	0
	SUBTOTAL	0	to	+2	0
PROJECT DELIVERY (2 POINTS POSSIBLE)					
On Schedule/On Budget	SCORE	-2	to	+2	0
	SUBTOTAL	-2	to	+2	0
PROJECT MERIT CATEGORY SUB TOTAL	SUBTOTAL	-28	to	+67	23