

ATTACHMENT D
INCREMENTAL COSTS AND BENEFITS FOR IMPROVEMENTS
Project 205063 and 205104 – MBL Pedestrian Safety Enhancement at Grade Crossings

Reduction Percentage	50%
Annual Non-Fatal Accidents Before Gating	5.55
Annual Non-Fatal Accidents After Gating	2.78
Annual Reduction in Non-Fatal Accidents	2.78
Value of a Non-Fatal Accident Reduction (millions)	\$ 0.36
Estimated Annual Value of Non-Fatal Accident Reduction from Pedestrian Gating (millions)	\$ 1.01
Annual Fatal Accidents Before Gating	3.58
Annual Fatal Accidents After Gating	1.79
Annual Reduction in Fatal Accidents	1.79
Value of a Fatal Accident Reduction (millions)	\$ 6.32
Estimated Annual Value of Fatal Accident Reduction from Pedestrian Gating (millions)	\$ 11.32
Total Estimated Annual Value of Reduction to Fatal and Non-Fatal Accidents (millions)	\$ 12.33
Estimated Metro Costs for Gating O&M (millions)	\$ 0.15
Estimated UP Costs for Gating O&M (millions)	\$ 0.20
Total Estimated Annual Costs for Gating O&M (millions)	\$ 0.35
Estimated Annual Public Net-Benefit for Pedestrian Gating (millions)	\$ 11.98
NPV of Public Net-Benefit Over 25 Year Life (3% discount rate) (millions)	\$ 202.50
Project Cost (millions)	\$ (33.04)
Public Benefit Net of Project Cost (millions)	\$ 169.46
Payback Period in Months	37 Months
Break Even Collision Reduction	9.35%
Other Benefits	
Reduced occupational injuries	
Improved service reliability	
Lower Metro and other public costs for investigation and administration expenses	