

## Pedestrian Safety Circulation Improvement Summary

	<u>Pedestrian Improvement</u>	<u>Design Elements</u>	<u>Construction Cost (Planning-Level Estimate)<sup>1</sup></u>	<u>Notes</u>
	<b>UNSIGNALIZED INTERSECTION CROSSING</b>			
A	Stop Sign Control	Stop Sign	\$1,000	assumes installation of one sign in each direction of travel
		Crosswalk / Stop Bar	\$1,500	assumes continental/ladder crosswalk across two-lane cross-section and standard stop bar on on two intersection approaches
		ADA Curb Ramps	<u>\$10,000</u>	assumes two ADA curb ramps and truncated domes/detectable warning material includes demolition and restoration
			<b>\$12,500</b>	
	<b>MID-BLOCK CROSSING</b>			
B	Standard Treatment	Pedestrian Crossing Sign	\$1,000	assumes installation of one sign in each direction of travel
		Advance Pedestrian Crossing Warning Sign	\$1,000	assumes installation of one advance warning sign in each direction of travel
		Crosswalk	\$1,500	assumes continental/ladder crosswalk across two-lane cross-section
		ADA Curb Ramps	<u>\$10,000</u>	assumes two ADA curb ramps and truncated domes/detectable warning material includes demolition and restoration
			<b>\$13,500</b>	
C	Increased Signage	In-Pavement Sign	\$500	assumes bi-directional sign
		Advance Pedestrian Crossing Warning Sign	\$1,000	assumes installation of one advance warning sign in each direction of travel
		Crosswalk	\$1,500	assumes continental/ladder crosswalk across two-lane cross-section
		ADA Curb Ramps	<u>\$10,000</u>	assumes two ADA curb ramps and truncated domes/detectable warning material includes demolition and restoration
			<b>\$13,000</b>	

## Pedestrian Safety Circulation Improvement Summary

	<u>Pedestrian Improvement</u>	<u>Design Elements</u>	<u>Construction Cost (Planning-Level Estimate)<sup>1</sup></u>	<u>Notes</u>
D	Curb Extensions	Pedestrian Crossing Sign	\$1,000	assumes installation of one sign in each direction of travel
		Advance Pedestrian Crossing Warning Sign	\$1,000	assumes installation of one advance warning sign in each direction of travel
		Crosswalk	\$1,500	assumes continental/ladder crosswalk across two-lane cross-section
		ADA Curb Ramps	\$10,000	assumes two ADA curb ramps and truncated domes/detectable warning material includes demolition and restoration
		Curb Extensions	<u>\$10,000-\$15,000</u>	includes curb extension on each side of the roadway excludes utility or fire hydrant relocation excludes drainage modifications
			<b>\$23,500-\$28,500</b>	
E	Speed Table	Pedestrian Crossing Sign	\$1,000	assumes installation of one sign in each direction of travel
		Advance Pedestrian Crossing Warning Sign	\$1,000	assumes installation of one advance warning sign in each direction of travel
		Crosswalk	\$1,500	assumes continental/ladder crosswalk across two-lane cross-section
		ADA Curb Ramps	\$10,000	assumes two ADA curb ramps and truncated domes/detectable warning material includes demolition and restoration
		Speed Table	<u>\$40,000</u>	excludes drainage modifications assumes concrete speed table
			<b>\$53,500</b>	
F	Rectangular Rapid Flashing Beacon (RRFB)	RRFB Signage	\$15,000-\$20,000	includes RRFB in each direction of travel
		Advance Pedestrian Crossing Warning Sign	\$1,000	assumes installation of one advance warning sign in each direction of travel
		Crosswalk	\$1,500	assumes continental/ladder crosswalk across two-lane cross-section
		ADA Curb Ramps	\$3,000	assumes two ADA curb ramps and truncated domes/detectable warning material includes demolition and restoration
		Curb Extensions	<u>\$10,000-\$15,000</u>	excludes drainage modifications
			<b>\$30,500-\$40,500</b>	

## Pedestrian Safety Circulation Improvement Summary

	<u>Pedestrian Improvement</u>	<u>Design Elements</u>	<u>Construction Cost (Planning-Level Estimate)<sup>1</sup></u>	<u>Notes</u>
G	In-Pavement Lighting	In-Pavement Lighting	\$30,000-\$40,000	assumes two-lane cross-section installation required on both sides of crosswalk for entire length of crosswalk includes pedestrian pushbutton activation
		Advance Pedestrian Crossing Warning Sign	\$1,000	assumes installation of one advance warning sign in each direction
		Crosswalk	\$1,500	assumes continental/ladder crosswalk across two-lane cross-section
		ADA Curb Ramps	<u>\$10,000</u>	assumes two ADA curb ramps and truncated domes/detectable warning material includes demolition and restoration
			<b>\$42,500-\$52,500</b>	
<b>BNSF RAIL CROSSING / UNDERPASS</b>				
H	Loomis Street At-Grade Crossing	Pedestrian Gate	<b>\$200,000-\$250,000 (total)</b>	assumes new rail crossing signal equipment
		Sidewalk Extension Across BNSF Tracks / Right-of-Way		excludes drainage; excludes railroad logistics (e.g., flagger, closure)
		ADA Curb Ramps		assumes ADA curb ramp connection to future sidewalk along east side of Loomis Street north of BNSF tracks and truncated domes/detectable warning material includes demolition and restoration
I	Ellsworth Street Underpass	General Safety and Aesthetic Enhancements	<b>\$2.25-\$3.75 million</b>	assumes resurfacing of the walls and ceiling assumes blindside waterproofing from inside the tunnel for the walls and ceiling to mitigate water leakage issues (note: this waterproofing system is not effective in stopping water leakage; alternative waterproofing systems would require closure of the tracks for up to 72 hours for installation) assumes new lighting in the tunnel assumes new barriers on the walls leading to the tunnel on the north side of the tracks excludes mechanical ventilation of the tunnel assumes construction would not disrupt train traffic

## Pedestrian Safety Circulation Improvement Summary

	<u>Pedestrian Improvement</u>	<u>Design Elements</u>	<u>Construction Cost (Planning-Level Estimate)<sup>1</sup></u>	<u>Notes</u>
J	Washington Street Underpass	Reconstruct Bridge for Enhanced Washington Street Streetscape / Sidewalk <sup>2</sup>	\$5.5-\$7.0million	reflects bridge replacement in the same location assumes bridge would be approximately 90' long x 85' wide (extended length to accommodate wider pedestrian path) bridge width is assumed to remain the same as existing condition excludes shoofly for temporary train service excludes raising profile of train tracks or lowering Washington Street (existing bridge is posted for 14'-5" of vertical clearance) excludes utility relocations
J2	Washington Street Underpass	Enhance Washington Street Bridge Finishes/Aesthetics Only	\$250,000-\$500,000	Decorative Metal Panels along concrete walls and over road way inclusive of dimensional lettering and panel lighting. LED lighting under viaduct.
K	Re-Open Cow Tunnel		\$3.0-\$5.0 million	structural integrity of the cow tunnel would likely require repairs cost to modernize and repurpose to code could exceed cost of a new underpass.
L	New Underpass	Precast Box Culvert	\$3.0-\$5.0 million	assumes structure is not temperature controlled except at elevators (if provided in lieu of ramps) 10-foot clear dimension inside the tunnel excludes site civil and utilities
M	Pedestrian Overpass / Skyway	Pre-Engineered Steel Truss Hydraulic Elevator at each Headhouse	\$2.5-\$4.0 million	reflects 70-foot span and 12-foot wide truss assumes structure is not temperature controlled except at elevators (if provided in lieu of ramps) headhouse elevation to allow for the required clear height between top of rail and bottom of bridge structure excludes site civil and utilities reflects minimal architectural features
<b>5th Avenue Improvements - Washington to Sleight</b>				

**Pedestrian Safety Circulation Improvement Summary**

	<u>Pedestrian Improvement</u>	<u>Design Elements</u>	<u>Construction Cost (Planning-Level Estimate)<sup>1</sup></u>	<u>Notes</u>
	Median Improvements	New between block medians with landscaping from Washington to Sleight.	\$617,500	Reflects \$325/LF Cost - Saw Cutting, Asphalt removal, new median/curb, mill/resurface roadway, restriping and landscape
	Pedestrian Lights	City of Naperville Standard Street Lighting	\$596,600	Reflects 314/LF
			<b>\$1,214,100</b>	
<b>Washington Avenue Improvements - 5th to North</b>				
	Sidewalk Improvements	New sidewalk, retaining wall detail with landscape from 5th Ave. to North Aene on the East and West sides of Washington. Widening under brindge not included.	\$1,789,200	Reflects \$2,100/LF Cost - Saw Cutting, Concrete removal, new concrete sidewalks, hardscape retaining walls, landscaping and decorative railings.
	Pedestrian Lights	City of Naperville Standard Street Lighting	\$267,528	Reflects 314/LF
			<b>\$2,056,728</b>	

<sup>1</sup> Assumes the pedestrian crossing improvement is included with a comprehensive project in lieu of individual small-scale improvement projects.

<sup>2</sup> For purposes of this planning-level cost estimate, assumed dimensions of Washington Street streetscape included in the 5th Avenue Study, adopted by Naperville City Council on December 1, 2009.