

TA Design Treatment Typical Costs			Material Cost (Installed with in house staff)		Installed Cost (Bid to contractor for installation)	
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### Designing for Pedestrians - Signs and Stripes/ Pavement Markings

Pavement Markings - Words or Symbols ("School XING", "ONLY" or 2 arrows)						
Material = Paint	20 SF	\$ 1.00 /SF	\$20	\$ 1.60 /SF	\$32	
Material = Long life, thermoplastic	20 SF	\$ 2.00 /SF	\$40	\$ 4.00 /SF	\$80	
Crosswalks						
Standard style - Paint (Two Lines Cross Walk, 40' long)	54 SF	\$1.00 /SF	\$54	\$ 1.60 /SF	\$87	
Continental style (10' wide, 40' long, 1' lines every 2')						
Material = Paint	225 SF	\$1.00 /SF	\$225	\$ 1.60 /SF	\$360	
Material = Long life, thermoplastic	225 SF	\$2.00 /SF	\$450	\$ 4.00 /SF	\$900	
Imprinted Crosswalks (assume 10' wide, 40' long)	400 SF (44 SY)	\$130 /SY	\$5,700	\$225 /SY	\$9,900	
Signs						
Regulatory and Warning Signs (ex. "Stop for Pedestrian", "End School Zone")	3 SF - 9 SF (18"x24" to 36"x36")	\$ 40.00 /SF	\$120 - \$360	\$ 50.00 /SF	\$150 - \$450	
Driver Speed Feedback Sign - <b>Portable</b> (also called a Radar Speed Sign)	each (2' x 3')	\$3,100 - 6,000	\$3,100-\$6,000	\$3,500-\$6,500	\$3,500 - \$6,500	
Driver Speed Feedback Signs - <b>Fixed on pole</b> (also called a Radar Speed Sign)	each (2' x 3')	\$3,000 - 4,000	\$3,000-\$4,000	\$5,000-\$6,000	\$5,000-\$6,000	
Portable Solar Powered Traffic Speed Trailer	each (trailer)	\$12,000	\$12,000	\$15,000	\$15,000	
Dynamic Message Sign - portable (Multiple Lines of Text)	each (4' x 8')	\$11,600-\$15,200	\$11,600-\$15,200	\$14,500-\$19,000	\$14,500-\$19,000	

### Designing for Pedestrians - Intersections

Traffic Signals						
Adding Pedestrian Signal Heads and push Buttons to an existing Traffic Signal	8 signal heads and 8 push buttons	\$1000.00 + \$450.00 each	\$11,600	\$2,900	\$23,200	
New Traffic Signal with Countdown Pedestrian Signal Heads	Intersection of two roads, each with one lane in each direction	\$187,500	\$187,500	\$250,000	\$250,000	
Pedestrian Activated Facilities						
Flashing Beacon/Enhanced Warning Sign	2 signs, one posted in each direction	\$5,800	\$11,600	\$6,500	\$13,000	
Rectangular Rapid Flashing Beacon (RRFB)	2 signs, one on each Side of Street	\$8,000 - \$12,000	\$8,000 - \$12,000	\$10,000-\$15,000	\$10,000-\$15,000	
Pedestrian Crossing In-Roadway Illumination System	Equipment includes fixtures, 4 lamps/ lane for a 3 lane crosswalk, controller, pole, and push button activator.	\$21,000 - \$32,000	\$21,000 - \$32,000	\$31,000 - \$53,000	\$31,000 - \$53,000	

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Pedestrian Hybrid Beacon (HAWK Signal)	Mid-block, 4 lane roadway, are on each side of the road	\$75,000-150,000	\$75,000 - \$150,000	\$100,000-\$190,000	\$100,000 - \$190,000	
Shorter Crossing Treatments & Refuge Areas						
Curb Extensions (simple - no drainage modification required)	6' wide, 20 feet long	\$4,500	\$4,500	\$6,000	\$6,000	
Curb Extensions (complex - assume drainage modifications required)	6' wide, 20 feet long	\$16,000	\$16,000	\$20,000	\$20,000	
Pedestrian refuge island	Assume a minimum of 6' wide and 10' long	\$5,600	\$5,600	\$7,500	\$7,500	

### Designing for Pedestrians - Paths and Sidewalks

Paths - Shared Use Path (10' wide)						
Material = Asphalt	100 Yards	\$70 / FT	\$21,000	\$95 / FT	\$28,500	
Material = Crushed Stone (will have higher maintenance costs)	100 Yards	\$45/FT	\$13,500	\$60/FT	\$18,000	
Sidewalks & Accessibility						
Sidewalks – Concrete (4" Thick, 5' wide)	100 LF	\$90/SY	\$5,000	\$108/SY	\$6,000	
Detectable Warning Surface (assumes curb ramp already in place)	2'x4' each	\$125/SY	\$125	\$250/SY	\$250	
Curb Ramps	new curb and concrete 5' deep 15' wide	\$1200 each	\$1,200	\$1,500	\$1,500	
Bollards on sidewalk (typical grouping of at least 4 bollards)	4' high, steel or concrete	\$500 each	\$2,000	\$750 each	\$3,000	

### Designing for Bicyclists - Roadway treatments and Amenities

Roadway Treatments						
"Bicycle-safe" stormwater drainage grates	each (2' x 4')	\$280	\$280	\$360	\$360	
Video Detectors (Installed in pairs) (2 Cameras + Processor)	Detector and stencil	\$16,000	\$16,000	\$20,000	\$20,000	
Parking						
Bicycle Racks (parking for two bicycles)	each	\$120 - \$300	\$120 - \$300	\$200-\$400	\$200 - \$400	
Lockers (each holds 2 bikes)	each	\$1,500 - \$3,000	\$1,500 - \$3,000	\$2,000 - \$4,000	\$2,000 - \$4,000	
Shelter/Covered (Excluding Racks) (each holds 8 - 12 bikes)	each	\$1,000 - \$3,000	\$1,000 - \$3,000	\$1,700 - \$5,000	\$1,700 - \$5,000	

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<b>Designing for Bicyclists - Signs and Stripes/ Pavement Markings</b>						
Signs						
Share the Road Sign (Assembly)	12 SF (3' x 3') + (24" x 18")	\$400.00	\$400	\$600.00	\$600	
Bike Route (signing per mile)	20 signs per mile (1.5'x2' = 3SF/Sign)	\$40.00	\$2,400	\$50.00	\$3,000	
Pavement Markings						
Shared lane markings "Sharrows"	each (30 SF)	\$2.00/SF	\$60	\$4.00/SF	\$120	
Bike Symbol (Words or Arrows, assume thermoplastic)	20 SF	\$2.00/SF	\$40	\$4.00/SF	\$80	
Bike lane striping (adding 4" white thermoplastic striping)	1 mile	\$1.00 /LF	\$5,300	\$1.60 /LF	\$8,500	
Colored Bike Lane (Green thermoplastic 4' wide and 50' long)	200 SF	\$2.00 /SF	\$400	\$4.00/SF	\$800	
<b>Traffic Calming - Passive Measures</b>						
Passive Speed Control Measures						
Streetscaping						
Street trees	each	\$500	\$500	\$900	\$900	
Pedestrian Scale Lighting (12' tall, installed every 50')	each	\$1,500 - 2,500	\$1,500 - \$2,500	\$2,250-4,000	\$2,250 - \$4,000	
Rumble Strips (Milled into Pavement)	40'	\$3 /LF	\$120	10 /LF	\$400	
Rumble Strips (Thermo on top of Pavement)	40'	\$9 /LF	\$360	15 /LF	\$600	
Textured/colorized pavement						
Concrete Sidewalk, 4" Thick, 5' Wide	100'	\$90 /SY	\$5,000	\$108 /SY	\$6,000	
Tinted Concrete Sidewalk, 4" Thick, 5' Wide	100'	\$95 /SY	\$5,300	\$115 /SY	\$6,400	
Brick Sidewalk, 5' wide	100'	\$105 /SY	\$5,800	\$160 /SY	\$9,000	

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<b>Traffic Calming - Active Measures</b>						
Active Speed Control Measures						
<b>Horizontal Deflection</b>						
Chicane	each	\$19,000	\$19,000	\$30,000	\$30,000	
Mini roundabout (traversable islands that is small enough to stay within the existing ROW)	each	\$24,000	\$24,000	\$35,000	\$35,000	
Neighborhood Traffic Circle (do not include raised channelization)	each	\$10,000 - \$50,000	\$10,000 - \$50,000	\$15,000 - \$75,000	\$15,000-\$75,000	
<b>Constrictions</b>						
Curb Extensions (high end - assume drainage modification required)	each (could have 4 per intersection)	\$16,000 - \$64,000	\$16,000 - \$64,000	\$20,000 - \$80,000	\$20,000 - \$80,000	
Neckdowns (assume no drainage modifications required)	each	\$3,000 - \$6,400	\$3,000 - \$6,400	\$4,000 - \$8,000	\$4,000 - \$8,000	
Pedestrian refuge island	each	\$5,600	\$5,600	\$7,500	\$7,500	
<b>Vertical Deflection</b>						
Speed Humps (Speed Tables)	each	\$2,000-\$4,000	\$2,000-\$4,000	\$3,000-\$5,000	\$3,000-\$5,000	
Raised crosswalk	each	\$6,000	\$6,000	\$8,200	\$8,200	
Raised intersection (includes paving, drainage, signs and striping)	each	\$60,000-\$96,000	\$60,000-\$96,000	\$80,000 - \$120,000	\$80,000 - \$120,000	
Volume Control Measures						
<b>Physical Diverters</b>						
Full street closure	each	\$500 - \$150,000	\$500 - \$150,000	\$1,000 - \$225,000	\$1,000 - \$225,000	
Partial street closure	each	\$250 - \$75,000	\$250 - \$75,000	\$500 - \$150,000	\$500 - \$150,000	
Diagonal diverter	each	\$100,000	\$100,000	\$150,000	\$150,000	
Median barrier	each	\$10,000 - \$20,000	\$10,000 - \$20,000	\$15,000 - \$30,000	\$15,000 - \$30,000	
Forced turn island	each	\$10,000 - \$15,000	\$10,000 - \$15,000	\$15,000 - \$25,000	\$15,000 - \$25,000	

Cost Assumption Notes:

- 1-Maintenance & Protection of Traffic costs are not included.
- 2-Excludes ROW, and Utility impacts or relocation costs.