

TA Design Treatment Typical Costs			Material Cost (Installed with in house staff)		Installed Cost (Bid to contractor for installation)	
Type of Treatment	Typical Size	Unit Cost (Material)	Product Cost (Material)	Unit Cost (Labor + Material)	Product Cost (labor + Material)	

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 - Portable (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 - Fixed on pole (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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Designing for Bicyclists - Signs and Stripes/ Pavement Markings						
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	
Traffic Calming - Passive Measures						
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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Traffic Calming - Active Measures						
Active Speed Control Measures						
Horizontal Deflection						
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	
Constrictions						
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	
Vertical Deflection						
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						
Physical Diverters						
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.