

Dirt, Gravel, and Low Volume Road Program Summary of Typical Costs

April, 2015



This sheet presents rough cost estimates for typical deliverables on Dirt, Gravel, and Low Volume Road Projects. This is intended as a rough price guide only. Prices vary widely around the State. PEMA / FEMA rates may have changed since the date of this publication. Always check current listings.

Item	Unit	Expected Cost per Unit		Typical DGLVR Program Use and Notes
		Material Only	Installed / Completed	
STONE				<i>Note: Installed cost of stone products is highly dependent on trucking distance.</i>
Driving Surface Aggregate (DSA)	Ton	\$15-\$25	\$20-\$35	Driving surface
AASHTO #1 Stone (PA #4, ballast)	Ton	\$10-\$20	\$15-\$25	4" top size. Fill for French mattress, road fill to allow drainage, underdrains
AASHTO #3 Stone (PA 3A)	Ton	\$10-\$20	\$15-\$25	3" top size. Road fill to allow drainage.
AASHTO #10 Stone (screenings)	Ton	\$10-\$20	\$15-\$25	Pipe Bedding
AASHTO #57 Stone (PA 2B)	Ton	\$10-\$20	\$15-\$25	1.5" top size. Clean stone for underdrains, road sub-base or fill
2A Stone	Ton	\$10-\$20	\$15-\$25	2" top size. Graded, clean. Road sub-base
2RC Stone	Ton	\$10-\$15	\$14-\$20	2" top size. Graded, highly variable composition. Road sub-base or fill
Riprap R-3	Ton	\$16-\$22	\$26-\$32	6" top size. Outlet stabilization, road base.
Riprap R-4	Ton	\$18-\$24	\$28-\$34	12" top size. Concentrated flow stabilization (ditches, outlets)
Riprap R-5	Ton	\$20-\$26	\$32-\$38	18" top size. Concentrated flow stabilization (ditches, outlets)
Riprap R-6	Ton	\$22-\$28	\$36-\$44	24" top size. Concentrated flow stabilization (stream banks, outlets)
DRAINAGE				<i>Note: installed cost for pipes includes backfill, inside diameters listed.</i>
4" perforated	Linear Ft.	\$2-\$4	\$6-\$8	Underdrain
6" perforated	Linear Ft.	\$3-\$5	\$7-\$9	Underdrain
12" HDPE, dual-wall smooth bore	Linear Ft.	\$7-\$11	\$20-\$30	Drainage culverts (HDPE = High-density polyethylene (plastic pipe))
15" HDPE, dual-wall smooth bore	Linear Ft.	\$8-\$12	\$40-\$50	Drainage culverts
18" HDPE, dual-wall smooth bore	Linear Ft.	\$14-\$18	\$45-\$55	Drainage culvert in larger drainages.
24" HDPE, dual-wall smooth bore	Linear Ft.	\$18-\$22	\$50-\$60	Drainage culvert, stream crossing.
30" HDPE, dual-wall smooth bore	Linear Ft.	\$24-\$30	\$60-\$70	Drainage culvert, stream crossing.
36" HDPE, dual-wall smooth bore	Linear Ft.	\$28-\$34	\$70-\$80	Drainage culvert, stream crossing.
Stone Headwall or Endwall	Each	\$50-\$100	\$100-\$200	Protect pipes ends from erosion. (price is each, budget two per pipe)
French Mattress (18"D x 20"W x 50'L)	Each	~\$2,800	~\$4,000	Stone structure wrapped in fabric under a road to allow water to flow freely
GEO-FABRICS				
Fabric, 2A non-woven (12.5'Wx432'L)	Each	\$300-400	\$500-\$700	Separate layers in road, French mattress, underdrain, under rip-rap
Geogrid (13'W x 150'L)	Each	\$500-\$750	\$750 - \$900	Road base reinforcement

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PAVING: note: paving cost will vary widely based on location, trucking distance, and job size. Small jobs will cost significantly more per unit for mobilization.				
Pavement Milling	SY	-	\$4 - \$8	Remove existing pavement and leave stone sub-base in place.
Chip-seal ("Tar and Chip")	SY	-	\$1 - \$4	Application of binder and stone separately to form wearing course.
note: cost of "chip-sealing" is highly variable based on location, size of job, amount and type of sealant, and amount and type of stone used				
1.5" SuperPave 9.5 mm	SY	-	\$8-\$12	Pavement wearing course (exposed to traffic)
2" SuperPave 12.5mm	SY	-	\$10-\$14	Pavement wearing course (exposed to traffic)
4" SuperPave 19mm	SY	-	\$18-\$22	Pavement base course
4" SuperPave 25mm Base	SY	-	\$18-\$22	Pavement base course

Item	Rental	FEMA/PEMA Rate*	Typical DGLVR Program Use and Notes	
EQUIPMENT				
Notes: PEMA/FEMA rates do not include labor and do not apply to contracted equipment				
Dozer, crawler, up to 75 HP	Rental rates are highly variable based on location, for a general estimate, multiply the hourly FEMA/PEMA rate by 10-15 to estimate a daily rental rate. (i.e. small dozer @ \$31/hr = \$310-\$465/day)	\$31/hr	Spread material	
Dozer, crawler, to 105 HP		\$40/hr	Spread material	
Dozer, crawler, to 160 HP		\$65/hr	Spread material	
Dozer, wheel up to 300 HP		\$55/hr	Spread material	
Grader, up to 110 HP and 10' blade		\$34/hr	Re-shape road surface.	
Grader, up to 150 HP and 12' blade		\$58/hr	Re-shape road surface.	
Excavator, 1 CY Bucket		\$39/hr	Excavate trenches, pits and place material	
Excavator, 1.5 CY Bucket		\$65/hr	Excavate trenches, pits and place material	
Backhoe, 1 CY Bucket		\$23.5/hr	Excavate trenches, pits and place material	
Backhoe, 1.5 CY Bucket		\$33/hr	Excavate trenches, pits and place material	
Loader, Skid Steer, (2,000lb cap.)		\$18/hr	Loading and moving material.	
Trucking (~22 ton Triaxle)		\$65/hr	Hauling material	
Paver, up to 125 HP		\$115/hr	Place asphalt and DSA	
Paver, to 175 HP		\$125/hr	Place asphalt and DSA	
Roller, 8 Ton Vibratory		\$25/hr	Compact asphalt, DSA and sub-base material	
Roller, 10 Ton Vibratory		\$29/hr	Compact asphalt, DSA and sub-base material	
Jumping Jack		\$60-\$80/day	-	Compact pipe bedding

Expected Cost: An estimated cost range based on past experience of Center staff. Cost will vary by location.

***PEMA/FEMA Rate:** Establishes maximum charge for equipment for in-kind contributions. Applicant owned equipment charges are limited to the PEMA/FEMA rates. Rate does not include labor. Does not apply to contracted equipment. **Rates may have changed, always check current rates.**

Current rates at: <https://www.fema.gov/schedule-equipment-rates>

Prevailing Wage: Note that Prevailing Wage applies to all contracted (not municipal) labor if the total value of the DGLVRP Project is over \$25,000.