

# D&S Engineering Labs 1101 Shady Oaks Drive

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#### **Budget Estimate for Construction Materials**

Testing & Observation Services Newton Rayzor Elementary School Denton, Texas D&S 22-527

Item Quantity Unit Unit Rate Total Earthwork Observation & Testing Paving & Utilities \$925.00 Moisture Density Relations (ASTM D698 - Method A or B) 5 each \$185.00 \$200.00 Moisture Density Relations (ASTM D698 - Method C) 1 each \$200.00 Atterberg Limits 25 each \$85.00 \$2,125.00 Minus 200 Sieve Analysis 3 \$40.00 \$120.00 each Sieve Analysis 1 each \$120.00 \$120.00 Lime Depth Checks 21 each \$15.00 \$315.00 Lime Subgrade Gradations 21 each \$15.00 \$315.00 Sulfate Content in Soils, Colorimetric Method 1 \$125.00 \$125.00 each \$400.00 \$400.00 Lime Series & Report 1 each In-Place Moisture-Density Tests (Paving)(Min. 3 Per Trip) 127 \$15.00 \$1,905.00 each In-Place Moisture-Density Tests (Utilities)(Min 3 Per Trip) 498 \$15.00 \$7,470.00 each 52 Engineering Soils Technician - Paving (Min. 4 hrs. per trip) \$60.00 \$3,120.00 hour Engineering Soils Technician - Utilities (Min. 4 hrs. per trip) 108 hour \$60.00 \$6,480.00 38 \$50.00 \$1,900.00 Trip Charge trip **Project Manager** 23 \$115.00 hour \$2,645.00 \$2,817.00 **Project Administration** n/a % 10 Estimated Total for Earthwork Services for Paving & Utilities: \$30,982.00 Asphalt Observation & Testing (Offsite) Set Rolling Patterns 24 hour \$65.00 \$1,560.00 Nuclear Density Gauge Equipment Rental Fee 3 \$100.00 \$300.00 day 3 trip \$50.00 \$150.00 Trip Charge \$115.00 **Project Manager** 2 hour \$230.00 **Project Administration** n/a % 10 \$224.00 **Estimated Total for Asphalt Services:** \$2,464.00 Concrete Observation & Testing - Site Work Concrete Test Cylinders (4 x 8 inch) 120 each \$20.00 \$2,400.00 96 \$60.00 \$5,760.00 Engineering Concrete Technician (Min. 4 hrs. per trip) hour (Includes reinforcing observation & cylinder pick up) Trip Charge 24 trip \$50.00 \$1,200.00 \$115.00 **Project Manager** 9 hour \$1,035.00 **Project Administration** n/a 10 \$1,040.00 % Estimated Total for Concrete Services for Paving: \$11,435.00 Earthwork Observation & Testing Building Pad Moisture Density Relations (ASTM D698 - Method A or B) 2 each \$185.00 \$370.00 2 \$85.00 \$170.00 Atterberg Limits each Minus 200 Sieve Analysis 2 each \$40.00 \$80.00 In-Place Moisture-Density Tests, Min 3 per trip 192 \$15.00 \$2,880.00 each Engineering Soils Technician (Min. 4 hrs. per trip) 44 hour \$60.00 \$2,640.00 \$50.00 \$550.00 **Trip Charge** 11 trip **Project Manager** \$115.00 \$690.00 6 hour Project Administration \$738.00 n/a % 10 **Estimated Total for Earthwork Services:** \$8,118.00

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Item	Quantity	Unit	Unit Rate	Total
Drilled Shaft Observations				
Concrete Test Cylinders (4 x 8 inch)	85	each	\$20.00	\$1,700.00
Sr. Engineering Technician (Min. 4 hrs. per trip)	136	hour	\$60.00	\$8,160.00
Sr. Engineering Technician (over time rate per trip)	56	hour	\$90.00	\$5 <i>,</i> 040.00
Senior Engineer (PE)	8	hour	\$175.00	\$1,400.00
Trip Charge	18	trip	\$50.00	\$900.00
Project Manager	15	hour	\$115.00	\$1,725.00
Project Administration	n/a	%	10	\$1 <i>,</i> 893.00
	Estimated Total for Drilled Shaft		aft Services:	\$20,818.00
Concrete Observation & Testing Building				
Concrete Test Cylinders (4 x 8 inch)	285	each	\$20.00	\$5,700.00
Engineering Concrete Technician (Min. 4 hrs. per trip)	318	hour	\$60.00	\$19,080.00
(Includes reinforcing observation & cylinder pick up)				
Trip Charge	76	trip	\$50.00	\$3 <i>,</i> 800.00
Project Manager	25	hour	\$115.00	\$2,875.00
Project Administration	n/a	%	10	\$3,146.00
	Estimated Tota	al for Concre	ete Services:	\$34,601.00
Masonry Observation & Testing				
Mortar Cubes (6 per set)	132	each	\$25.00	\$3,300.00
Grout Prisms (4 per set)	88	each	\$35.00	\$3 <i>,</i> 080.00
Engineering Technician (Min. 4 hrs. per trip)	88	hour	\$65.00	\$5,720.00
(Includes observation and masonry pickup)				
Trip Charge	11	trip	\$50.00	\$550.00
Project Manager	9	hour	\$115.00	\$1,035.00
Project Administration	n/a	%	10	\$1,039.00
	Estimated Total	al for Masonry Services:		\$14,724.00
Structural Steel Observation				
CWI Visual Observation (Min. 4 hrs. per trip)	70	hour	\$72.00	\$5 <i>,</i> 040.00
Ultrasonic Inspection (Min. 4 hrs. per trip)	15	hour	\$90.00	\$1 <i>,</i> 350.00
Material Fee	3	day	\$35.00	\$105.00
Trip Charge	17	trip	\$50.00	\$850.00
Project Manager	7	hour	\$115.00	\$805.00
Project Administration	n/a	%	10	\$815.00
Estimated Total for Structural St		eel Services:	\$8,965.00	
Fireproofing Observation & Testing				
Fireproofing visual observation (min. 4 hours per trip)	75	hour	\$72.00	\$5 <i>,</i> 400.00
Thickness and Density testing	68	each	\$30.00	\$2 <i>,</i> 040.00
Adhestion testing	68	each	\$42.00	\$2,856.00
Trip Charge	15	trip	\$50.00	\$750.00
Project Manager	7	hour	\$115.00	\$805.00
Project Administration	n/a	%	10	\$1,185.00
	Estimated Total fo	or Fireproofi	ng Services:	\$13,036.00

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Item	Quantity	/ Unit	Unit Rate	Total
Storm Shelter Observation & Testing				
Visual observation (min. 4 hours per trip)	32	hour	\$90.00	\$2,880.00
Trip Charge	5	trip	\$50.00	\$250.00
Project Manager	3	hour	\$115.00	\$345.00
Project Administration	n/a	%	10	\$348.00
	Estimated Total for Storm	or Storm Shel	torm Shelter Services:	
Project Setup Fee	1	each	\$100.00	\$100.00
Allowance for Sr. Engineer, Site Visits, Compliance Letters, ect.	19	hour	\$165.00	\$3,135.00
	Estimated Total for Professional Services:			\$3,235.00

Estimated Total for Above Services: \$152,201.00

#### NOT INCLUDED IN REQUIREMENTS OR THE BUDGET

Tests in excess of above stated quantities or additional tests not listed

Retesting of any failed tests / observation

Temporary site curing facility

Project compliance letter

The fees listed above for field and laboratory tests, include the equipment necessary to accomplish the task. Fees not listed above are available upon request. Overtime at 1.5 times the normal rate will be billed for time in excess of 8 hours per day and Saturdays, and for time worked before 7 a.m and after 6 p.m. Overtime at 2.0 times the normal rate will be billed for Sundays and holidays.