

Geotechnical Engineering Services, AKA Cost Estimate October 18, 2018
Oxford Elementary School - Full Geotechnical Study

PERSONNEL	LABOR									Direct Costs (by Subtask)	Task Totals	
	Classification	Principal Engineer	Associate Engineer	Principal Geologist	Senior Engineer	Project Geologist	Staff Engineer	GIS/Graphics	Word/Data Processing			Labor Subtotal (by Subtask)
Labor Rate	\$230	\$210	\$190	\$195	\$145	\$125	\$120	\$85				
PHASE 1 - Geotechnical Landslide Investigation												
1.0 - Background, Site Recon and Field Explorations												
1.1 Geologic Background Review	6		8	2						\$3,290		\$3,290
1.2 Site Reconnaissance and USA			10	2		2				\$2,540		\$2,540
1.3 Coordination, Utility Clearances, Drilling Permit	6			8		4				\$3,440	\$3,347	\$6,787
1.4 Onsite Drilling Exploration (8 borings to 150-feet)			10	10	80					\$15,450	\$32,800	\$48,250
1.5 Onsite Large-Diameter Drilling Exploration (3 shafts to 50-feet + downhole logging)	4		12	10	8					\$6,310	\$21,850	\$28,160
1.6 Spoils Off-Haul				4						\$780	\$3,750	\$4,530
1.7 Geophysical	2			4						\$1,240	\$5,290	\$6,530
1.8 Laboratory Testing	2			6						\$1,630	\$15,000	\$16,630
Task 1.0 Totals :	20	0	40	46	88	6	0	0		\$34,680	\$82,037	\$116,717
2.0 - Analyses, Engineering, Report												
2.1 Coordinate with BUSD/CGS/DSA and Analysis Team	24		24	24						\$14,760		\$14,760
2.2 Analyze and Interpret Data	8			10						\$3,790		\$3,790
2.3 Geo-Hazard Evaluation	6			6						\$2,550		\$2,550
2.4 Site Specific PSHA	1			1						\$425	\$12,075	\$12,500
2.5 Prepare Cross-Sections	2		4	2	8		4			\$3,250		\$3,250
2.6 CEG Review	1		6							\$1,370		\$1,370
2.7 Finite Element / LS Analysis	6			8		6				\$3,690	\$40,000	\$43,690
2.8 Site Plan and Plates/Figures	4			4			8			\$2,660		\$2,660
2.9 Note 48 Checklist	2		2	6						\$2,010		\$2,010
2.10 Draft Report	8		8	16	4		6	4		\$8,120		\$8,120
Task 2.0 Totals :	62	0	44	77	12	6	18	4		\$27,865	\$52,075	\$79,940
Total Labor Hours:	82	0	84	123	100	12	18	4				
Total Labor Fee	\$18,860	\$0	\$15,960	\$23,985	\$14,500	\$1,500	\$2,160	\$340		\$62,545	TOTAL FEE:	\$196,657

DIRECT COSTS (include 15% m/u)		Unit Cost	Qty	Total	Task
Utility Locator	ea	\$1,380	1	\$1,380	1.3
City of Berkeley Permit	ea	\$1,967	1	\$1,967	1.3
Drilling Contractor (Britton)	ea	\$32,800	1	\$32,800	1.4
Drilling Contractor (Tri-Valley)	ea	\$21,850	1	\$21,850	1.5
*Spoils Off-Haul and Site Clean-up	cy	\$150	25	\$3,750	1.6
Geophysical (Suspension Logging/Norcal)	ea	\$5,290	1	\$5,290	1.7
*Lab Testing	ea	\$15,000	1	\$15,000	1.8
PSHA (Pacific Engineering / LCI)	ea	\$12,075	1	\$12,075	2.4
*Dr. Bray (UCB) Landslide Characterization and Finite Element Analysis	ea	\$40,000	1	\$40,000	2.7
* estimated cost - dependent upon exploration results				Total Direct Costs:	
				\$134,112	