

Staffing and Cost of Engineering Services

Table 1: Project Staffing

| Task | Hours Per Staff Member | | | Total Hours |
|--------------------------------------|------------------------|------------|-----|-------------|
| | Sr. ENG | Assoc. ENG | EIT | |
| 1.0 Site Investigation | 3 | 3 | 3 | 9 |
| 2.0 Field Sampling | | | | |
| 2.1 Field Work Plan | 1 | 1 | 7 | 9 |
| 2.2 Field Work | 1 | 9 | 20 | 30 |
| 3.0 Geotechnical Analysis | | | | |
| 3.1 Sieve Analysis | 1 | 2 | 15 | 18 |
| 3.2 Hydrometer | 1 | 2 | 15 | 18 |
| 3.3 Atterberg Limits | 1 | 2 | 15 | 18 |
| 3.4 Sand-Cone Test | 1 | 2 | 15 | 18 |
| 3.5 Tri-axial | 1 | 2 | 15 | 18 |
| 3.6 Consolidation | 1 | 2 | 15 | 18 |
| 4.0 Hydrology | | | | |
| 4.1 Watershed Delineation | 1 | 3 | 8 | 12 |
| 4.2 Time of Concentration | 2 | 6 | 16 | 24 |
| 4.3 Storm Event Runoff | 1 | 3 | 8 | 12 |
| 5.0 Hydraulics | | | | |
| 5.1 LID Development | 1 | 3 | 8 | 12 |
| 5.2 Pre/Post Floodplain Map | 1 | 3 | 8 | 12 |
| 5.3 Proposed Water Disbursement | 1 | 3 | 8 | 12 |
| 30% Milestone | | | | |
| 6.0 Wall Design Process | | | | |
| 6.1 Wall Designs | 4 | 48 | 38 | 90 |
| 6.2 Plan and Profiles | 1 | 1 | 7 | 9 |
| 6.3 Final Wall Design Selection | 2 | 6 | 1 | 9 |
| 60% Milestone | | | | |
| 7.0 Impacts | 3 | 3 | 3 | 9 |
| 8.0 Project Management | | | | |
| 8.1 Meetings | | | | |
| 8.1.1 Team Meetings | 10 | 10 | 10 | 30 |
| 8.1.2 Grading Instructor Meetings | 15 | 15 | 15 | 45 |
| 8.1.3 Technical Advisor Meetings | 8 | 8 | 8 | 24 |
| 8.1.4 Client Meetings | 2 | 2 | 2 | 6 |
| 8.2 Schedule and Resource Management | 16 | 3 | 1 | 20 |
| 8.3 Deliverables | | | | |

| | | | | |
|-----------------------------------|---|----|----|----|
| 8.3.1 30% Submittal and Revisions | 1 | 6 | 17 | 24 |
| 8.3.2 60% Submittal and Revisions | 1 | 6 | 17 | 24 |
| 8.3.3 90% Submittal and Revisions | 6 | 12 | 30 | 48 |
| 8.3.4 100% Submittal | 1 | 6 | 17 | 24 |
| 8.3.5 Website | 4 | 10 | 14 | 28 |

Table 2: Cost of Engineering Services

| Item | Description | Cost per Unit | Number of Units | Units | Cost |
|-----------------------|---------------------------------|---------------|-----------------|-------|----------|
| 1.0 Personnel: | Sr. Eng. | \$180 | 92 | Hours | \$16,560 |
| | Assoc. Eng. | \$135 | 182 | Hours | \$24,570 |
| | EIT | \$90 | 356 | Hours | \$32,040 |
| | Total Personnel: | | | | \$73,170 |
| 2.0 Supplies: | Lab Rental | \$100 | 108 | Hours | \$10,800 |
| 3.0 Travel | 12 miles round trip @ 10 visits | \$0.62 | 120 | Miles | \$74 |
| 4.0 Total | | | | | \$84,044 |