Summary of Estimated Hours for Engineering Tasks			
Task	**Maximum Allowable Hours ***		
	CADD Operator **	**Project Engineer ****	**Project Manager/ Senior Engineer ****
1 Slope Stability (per analysis)	N/A	4.0	0.5
2 Settlement (per analysis)	N/A	5.0	1.0
3 Deep Foundation (per analysis)	N/A	5.0	1.0
4 Wave Equation Driveability (per analysis)	N/A	5.0	1.0
5 Negative Skin Friction (per analysis)	N/A	3.0	0.5
6 Bearing Capacity (per analysis)	N/A	4.0	0.5
7 Retaining Wall (per analysis)	N/A	6.0	1.0
8 Drafting (per sheet)	7.0	1.0	N/A
9 Logging Rock Cores (per hour) ***	N/A	N/A	N/A

*   These hours will generally be used to determine letter agreement upset limits and apply to most projects; however, there may be project-specific exceptions, if pre-approved in writing.

**   Typical personnel are listed and may vary depending on the firm's personnel classification system. The Geotechnical Branch may specify classifications of personnel on a project-by-project basis.

***   Logging rock cores will be paid for the actual number of hours for a geologist to log the cores, with an estimated rate of 250 feet per 8-hour day.

The maximum allowable hours for the following tasks will be estimated for each project.
- Preliminary Plans
- Preliminary Meetings
- Rock Core Meetings
- Interim Meetings
- Final Meetings
- Report Writing
- Publication of Reports

The estimated hours for specialty or out-of-the-ordinary tasks such as those below will be negotiated for each project.
- Tieback or Soil Nail Retaining Wall Analyses
- Analyses for Abnormally Large Fills (i.e. > ≈ 200 ft.)
- Analyses for Abnormally Deep Foundations (i.e. > ≈ 150 ft.)
- Seismic Analyses
- Tunnel Analyses

There will be no increase in allowable hours for LRFD Analyses since LRFD is now standard practice.

Any other miscellaneous tasks will be discussed on a project-specific basis.

Summary of Laboratory Tests and Specified Production Rates

	Test Description	Applicable Test Method(s) * and/or Comments	Pay Unit	Hours **
1	Moisture Content	T265	Test	0.25
2	Soil Classification	KM519, T89, T90, T100 & Classify (plastic soil)	Sample	4.0
3	Wash Gradation	D 1140, % Finer than #200 Sieve, Gradation, & Classify (non-plastic soil)	Sample	1.0
4	Moisture-Density, CBR, & Soil Classification	KM511, KM501, KM519, T89, T90, T100	Sample	9.5
5	Moisture-Density	KM 511	Sample	3.0
6	Slake Durability Index & Jar Slake Test including pulling sample from the core box	KM513, KM514	Sample	1.25
7	Unconfined Compression Test on Soil	KM522	Test	1.0
8	Unconfined Compression Test on Rock	KM523 or D2938 w/ stress-strain curve, includes sawing and capping sample	Sample	2.0
9	One-Dimensional Consolidation Test	T216	Test	9.0
10	CU Triaxial Test w/ Pore Pressure Measurements	KM502	Test (1 stress path)	6.0
11	UU Triaxial Test	KM521	Test	2.0
12	Undisturbed tube extraction including, waxing, moisture contents, pocket pens & vane tores.	T265	Tube	0.5
13	Remolding Sample for Permeability or Triaxial Testing	Includes moisture adjustments, Remolding, & extrusion	Sample	1.0
14	Constant Head Permeability Test on Granular Soil	D2434	Test	5.0
15	Falling Head Permeability Test on Cohesive Soil (Flexible Wall)	D5084	Test	8.0
16	Falling Head Permeability Test on Rock (Flexible Wall)	D5084	Test	16.5
17	CU Triaxial Test w/ Pore Pressure Measurements (Large Scale)	T297, aggregate, 6 inch dia. X 12 inch	Test (1 stress path)	10.0
18	Direct Shear Test (Large Scale)	T236, aggregate, 18 inch x 18 inch	Test (1 normal force)	10.0
19	Resilient Modulus Test	T307	Test	10.0
20	Direct Shear Test	T236	Test (1 normal force)	3.5

*   T = AASHTO Test Methods, D = ASTM Test Methods, KM = Kentucky Methods

**   Specified hours are for a laboratory technician or the firm's equivalent personnel classification, as approved by the Geotechnical Branch. Blended rates consisting of more than one classification (e.g. 80% Technician, 20% Senior Technician) may be used if justification is provided and approved by the Geotechnical Branch.

SPECIAL INSTRUCTIONS	**Other Requirements**
	All test information for any type of lab test on a project will be entered in a software package called gINT, the Department will provide the data template to the consultant and they will fill it out and submit it back to the department electronically.
	The consultant will also be responsible for checking and/or obtaining, information from the drilling consultant and design surveyors and making sure it is correct in gINT for all projects that the consultant writes the geotechnical report on, including all lab testing done on soil and rock. All coordinates will be checked to verify their locations are plotted in the right location on the map.
	The consultant will supply one draft hard copy of the report for review and two final hard copies of the report when completed.
	The consultant will supply the following electronic files for each completed project.
	Projects with Lab testing only:
	• The gINT file named with the correct tracking number for the project (S-XXX-20XX.gpj or R-XXX-20XX.gpj).
	• CU Triaxial test results shall be put in a (.pdf) file labeled with the file named as setup in gINT.
	• Consolidation test results shall be in a (.pdf) file labeled with the file named as setup in gINT.
	• UU Triaxial test results shall be in a (.pdf) file labeled with the file named as setup in gINT.
	• All other test results in one (.pdf) file labeled (Lab results for S-XXX-20XX.pdf)
	Projects with Report writing:
	• Consultant is responsible for submittal of all of the above files whether they were performed in-house, subcontracted or done by others.
	• All final drill logs shall be in a (.pdf) file labeled (Drill logs for S-XXX-20XX.pdf).
	• All (.DGN files) for the project.
	• The word document for the report in a file labeled (S-XXX-20XX.doc).

SPECIAL INSTRUCTIONS	- The report in a (.pdf) file labeled (S-XXX-20XX.pdf). - All email correspondence for the project. - All engineering analyses for the project. - All electronic maps made for the project. - All photos for the project. - And any other electronic files made for the project. - Pay Estimates All files shall not be locked in any way.