

COMMONWEALTH OF PENNSYLVANIA

GEOMECHANICS, INC. : BEFORE THE BOARD OF CLAIMS  
: :  
VS. : :  
: :  
COMMONWEALTH OF PENNSYLVANIA, : :  
DEPARTMENT OF TRANSPORTATION : DOCKET NO. 3386

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**FINDINGS OF FACT**

1. Plaintiff, GeoMechanics, Inc. (“GeoMechanics”) is a Pennsylvania corporation located at Millennium III Professional Park, 600 Munir Drive, P.O. Box 386, Elizabeth, PA 15037-0386. (Complaint)

2. Defendant is the Commonwealth of Pennsylvania, Department of Transportation (“PennDOT”), an executive agency, whose headquarters is located at the Commonwealth Keystone Building, 400 North Street, Harrisburg, PA 17120-0096. (Answer)

3. GeoMechanics keeps its books on a fiscal year basis ending May 31 of each year and provides three types of services to its clients: engineering/drafting; drilling and laboratory testing. (N.T. 18; 22-23)

4. Since it’s founding in the late 1960s, GeoMechanics has provided services to PennDOT, occasionally as a prime contractor but primarily as a subcontractor. (N.T. 19; Exhibits P-2, P-3, P-4)

**Witnesses**

5. Dr. Javaid M. Alvi is part owner and president of GeoMechanics, Inc. (N.T. 17-18)

6. Carole Licht is a bookkeeper for GeoMechanics, Inc. (N.T. 89-90)

7. Catherine S. Caccia, a CPA, is employed by Sarp & Company, a certified public accounting firm retained by GeoMechanics, Inc. (N.T. 111-12)

8. Walter M. Lorence is vice-president of GeoMechanics, Inc. (N.T. 179-80)

9. Philip Judge, an insurance examiner currently employed by the Pennsylvania Insurance Department, was previously employed by the Pennsylvania Department of Transportation as an auditor. (N.T. 305-06; 308-09) Mr. Judge performed the audit at issue in this case. (N.T. 306)

## The Case

10. At issue in this case are charges which GeoMechanics submitted to PennDOT for overhead and CADD services covering the audit period June 1, 1994, through May 31, 1999. (N.T. 9)

11. The audit took place from July 1999 through November 1999. (N.T. 27)

12. Plaintiff had 43 separate sub-consultant agreements that were subject to the Defendant's audit. (N.T. 58-59; Joint Stipulation No. 1)

13. The highway design contracts GeoMechanics worked on for PennDOT at issue here provided that GeoMechanics was to invoice PennDOT for direct labor multiplied by an overhead (indirect) rate; a percentage for profit, usually 5 percent; plus direct costs, other than payroll (travel, per diem, subcontractor costs, etc.). (N.T. 19, 49; Exhibit D-1)

14. Most of the services GeoMechanics performed for PennDOT were engineering/drafting services. (Exhibits P-2, P-4, D-2)

15. In connection with each subcontract and PennDOT requirements, GeoMechanics had submitted its computation of expenses and calculation of overhead rates to PennDOT each year in 1994, 1995, 1996, 1997 and 1998. (N.T. 25; Exhibit P-10)

16. GeoMechanics had hired a certified public accounting firm, Sarp & Company, at about the time GeoMechanics was founded in the late 1960's, to perform accounting and auditing services. (N.T. 21, 76, 112)

17. For the period in question (1994-1999), Sarp & Company had prepared statements of expenses supporting GeoMechanics overhead rates. (Exhibits P-5 through P-9, P-15 through P- 19)

18. The overhead rate for each year was calculated based upon the actual costs incurred in the fiscal year. (N.T. 25; Exhibit P-10)

19. For the fiscal years ending prior to 1996, GeoMechanics and its accountant Sarp & Company did not reflect costs on a segmented basis. For the fiscal years ending May 31, 1996, and thereafter, GeoMechanics and its accountant Sarp & Company reflected costs on the basis of two segments – engineering and drilling. (N.T. 140-44; Exhibits P-5 through P-9 and P-15 through P-19)

20. The overhead rates proposed by GeoMechanics were received by PennDOT for the years 1994, 1995, 1996, 1997 and 1998. (Joint Stipulation)

21. PennDOT approved the use of GeoMechanics' overhead rate in each year subject to subsequent audit. PennDOT concedes that it approved these preliminary rates developed by Plaintiff's accountant for the years 1990-1999. (N.T. 26; Joint Stipulation No. 4)

22. The audit report concluded, *inter alia*, that GeoMechanics is comprised of three separate segments – engineering, drilling, laboratory; that each segment has its own overhead rate; and that failure to recognize three segments in calculating the overhead rate for the entire company is unacceptable. (N.T. 26-27, 350-75, 392-93; Exhibit P-2)

23. The audit report for 1994-1999 (Audit Report No. B0100109) included the following findings:

- a. GeoMechanics failed to properly segment and reflect direct and indirect its expenses when computing the overhead rates submitted to PennDOT, resulting in an overpayment by PennDOT to GeoMechanics of \$192,552.00;
- b. GeoMechanics failed to support its estimated CADD equipment rate with actual costs, resulting in an overpayment by PennDOT of \$28,403.62; and
- c. GeoMechanics miscalculated an invoice submitted to PennDOT and overcharged \$1,000.00. (N.T. 231-32; Exhibit P-2)

24. Included in the CADD equipment costs of \$28,403.62 claimed by PennDOT following the 1999 audit is \$4,643.11 attributable to the 1994 audit findings. (N.T. 186; Exhibit P-2, page 15)

25. PennDOT had conducted an audit of GeoMechanics in 1993 that covered the period May 13, 1985, through October 8, 1993. (Exhibit P-4)

26. The 1994 Audit Report (3H060) contained a finding that GeoMechanics owed PennDOT \$4,643.11 for in-house computer costs billed in fiscal year 1993. (N.T. 185; Exhibit P-4, page 3, letter of March 23, 1994)

27. Notwithstanding the findings of the 1994 Audit Report, PennDOT did not require payment of the \$4,643.11 at the time the 1994 Audit Report was issued. (Exhibit P-4, page 1, letter of April 5, 1994)

28. Prior to the completion of the 1994 audit, by letter dated February 11, 1993, a rate for computer-aided drafting equipment was proposed by GeoMechanics based upon an estimated calculation by Sarp & Company. (N.T. 187, P-11)

29. GeoMechanics never received a response to its February 11, 1993, submittal to PennDOT. The company used the provisional rate for its CADD hardware costs in its billing to prime contractors. (N.T. 188, 218)

30. The PennDOT contracts for the highway design projects GeoMechanics has been involved in over the years include and incorporate by reference a portion of the Federal Acquisition Regulations (FAR) concerning the calculation of indirect overhead rates and billing based on actual costs, 48 CFR §1-201 et seq. (Exhibit D-1)

31. FAR provision Part 31 has been in effect since the early 60's in its current form or under other procurement rules of the U.S. Government. (Joint Stipulation No. 2)

32. The contracts on which GeoMechanics performed services for PennDOT all provided that PennDOT had the right to audit GeoMechanics' billings to determine if GeoMechanics was complying with the FAR in calculating the overhead rate it was applying to its direct labor costs. (N.T. 217; Exhibits D-1, D-3)

33. Chapter 31.203 of the FAR (48 CFR Chapter 31.203) states that contractors are to group their indirect costs on the basis of their "final cost objectives." This concept is known as "segmenting" indirect (overhead) costs among a company's various income sources. (N.T. 58, 146, 167-173; 297-298; Exhibits P-2, D-2)

34. In the case of GeoMechanics for the audit period in question, there were three final cost objectives: engineering services, drilling services, and laboratory testing services. (N.T. 165-173; Exhibit P-2; Board Finding)

35. On February 14, 2001, Mr. Walter Lorence, GeoMechanics' vice-president, and Mr. George Craig, GeoMechanics' attorney, met with Mr. Donald Childs of PennDOT's design section and Mr. Michael Alsher, PennDOT's attorney, to discuss resolution of the audit findings. (N.T. 195)

36. Mr. Lorence proposed that GeoMechanics be allowed to review all time sheets to reallocate all time charged by its employees into three business segments. (N.T. 195) Mr. Childs and Mr. Alsher agreed to look at a restatement of wages. (N.T. 195)

37. The audit adjustments for direct and indirect cost allocations among the three business segments of GeoMechanics arrived at by Mr. Judge in the final audit report here at issue (Audit Report No. 301001009) correctly reflect the direct and indirect cost allocations among the three business segments of GeoMechanics, with one exception; the allocation of direct and indirect costs between laboratory and engineering. (N.T. 28-47, 194-202, 232-35, 352-76, 395-406; Exhibits P-1, P-2, P-12, P-13, P-14)

38. In his audit, Mr. Judge based his allocations of costs between engineering and laboratory costs on the premise that the identifiable man hour cost of the laboratory operation consisted, with minor exception, of the time of one individual, T. Bolland. (the "Bolland Assumption"). (N.T. 353-5)

39. The allocation of employee man hours between engineering and laboratory performed by Dr. Alvi and Mr. Lorence (the “Alvi-Lorence Allocation”) upon review of all employee timesheets for the period at issue following the auditor’s advice of the need to differentiate between engineering and laboratory is a more accurate allocation of the man hours involved than Mr. Judge’s method used in the audit. (F.O.F. Paragraphs 37 and 38; Board Finding)

40. Sarp & Company’s calculation of overhead rates and overhead payment adjustments reflected in Exhibits P-13 and P-14, which are based on Mr. Judge’s audit, but modified to incorporate the Alvi-Lorence Allocation instead of the Bolland Assumption, are a more accurate reflection of overhead rates and overhead payment adjustments than the adjustments made in the audit here at issue (Audit Report No. 301001009). (F.O.F. Paragraphs 37, 38, 39; Board Finding)

41. Utilizing the most accurate method of calculating overhead rates and overhead payment adjustments, as described above in paragraph 40, PennDOT overpaid GeoMechanics for overhead in the subject audit period by \$5,683.49. (Exhibits P-13, P-14; Board Finding)

42. The most recent PennDOT audit (Audit Report No. 301001009) identified \$28,403.62 of CADD costs submitted to and paid by PennDOT to GeoMechanics, which amount includes \$5,006.93 and \$138.60 for CADD costs carried over from the prior audit (Audit Report No. 3H060). However the prior audit only claimed \$4,643.11 in CADD costs for which PennDOT sought reimbursement. (Exhibits P-2, P-4)

43. The correct total for CADD costs identified in the most recent audit is found by incorporating the outstanding amount of \$4,643.11 from the prior audit, resulting in an overpayment of \$27,901.20 in CADD costs. (N.T. 185-6; Exhibit P-2, P-4; Board Finding)

44. The corrected total amount of CADD costs of \$27,901.20 submitted to and paid by PennDOT to GeoMechanics were estimated costs, not actual costs. GeoMechanics did not offer evidence to establish actual cost at hearing and declined invitation to do so. (N.T. 223, 302; Exhibits P-2, P-4)

45. PennDOT’s audit identified a billing error regarding an invoice submitted for work performed on engineering design contract number 110888, resulting in an overpayment of \$1,000.00 by PennDOT to GeoMechanics. GeoMechanics does not contest this claim. (Exhibit P-2; Board Finding)

46. In the event that the Defendant is awarded a sum of money to be paid by the Plaintiff, Defendant will accept payment from Plaintiff directly without seeking payment from any of the prime contractors for whom Plaintiff acted as a sub consultant. (Joint Stipulation No. 6)

## CONCLUSIONS OF LAW

1. The Board of Claims has jurisdiction over this claim pursuant to 72 Pa. C.S. §4651-1 et seq.
2. The Board of Claims has jurisdiction over the parties as well as subject-matter jurisdiction asserted by the Plaintiff. (72 P.S. §4651-1, *et seq.*)
3. The Federal Acquisition Regulations (FAR) were applicable to the GeoMechanics sub-consultant agreements here at issue by the terms of the various prime contractor agreements between Defendant and its prime contractors. (Joint Stipulation No. 3)
4. Chapter 31 of the FAR (48 CFR Chapter 31) requires contractors to group their indirect costs on the basis of their “final cost objectives.” A final cost objective can be defined as a contractor’s source of revenue. (N.T. 58, 146, 167, 170-172, 297-98; Exhibits P-2; D-2)
5. FAR Chapter 31 required GeoMechanics to include in its indirect costs only those costs associated with the engineering final cost objective. GeoMechanics could not include in its indirect (overhead) costs those costs, which related to the drilling or laboratory testing final cost objectives. This concept is known as “segmenting” indirect (overhead) costs among a company’s various revenue sources. (N.T. 165-172; Exhibit P-2)
6. The FAR Chapter 31 required that CADD cost reimbursement to contractors must be based on actual, not estimated costs.
7. GeoMechanics failure to apply the FAR segmenting principles in calculating its labor overhead rates for fiscal years ending May 31, 1994, 1995, 1996, 1997, 1998 and 1999, resulted in an overpayment of overhead reimbursement by PennDOT to GeoMechanics of \$5,683.49. PennDOT is entitled to a refund of this overpayment from GeoMechanics in the amount \$5,683.49. (Record)
8. GeoMechanics failed to support invoiced CADD equipment costs, which were based on estimates, with actual costs, as required by the PennDOT contracts GeoMechanics worked on as a subcontractor, and PennDOT is entitled to refund of these costs in the amount of \$27,901.20 from GeoMechanics. (Record)
9. PennDOT’s audit identified a billing error regarding an invoice submitted for work performed on engineering design contract number 110888, and is entitled to refund of this overpayment of \$1,000.00 from GeoMechanics. (Exhibit P-2)

## OPINION

This matter involves issues arising from a demand by the Defendant, PennDOT, after an audit, for repayment of monies it paid to the Plaintiff, GeoMechanics, Inc., a subcontractor to

prime consultants who had design contracts with PennDOT. The Plaintiff had 43 separate sub-consultant agreements that were subject to audit for the audit period of 1994-1999. The first issue is whether the auditor's assessment of overpayment involving segmenting of expenses was proper. The second issue is whether and how much overpayment the Plaintiff owes the Defendant for computer assisted design and drafting (CADD) services. The third issue is Defendant's demand for \$1,000.00 for a billing error.

#### FAR Requirements

Under the aforementioned subcontracts, GeoMechanics was paid for its direct labor based upon specified hourly rates for each category of professional employees working on the subcontract plus a percentage rate applied against the direct labor billed for overhead. Overhead was to be based upon GeoMechanics' indirect costs in delivering services and a profit. In many of the subject contracts, the overhead rate was already established by the prime contractor's agreement with PennDOT. On an annual basis, GeoMechanics submitted overhead rates and supporting statements of expenses to PennDOT, including for fiscal years ending May 31, 1994, through 1999. (Exhibits P-15-19) The summaries were prepared by SARP & Company, accountants hired by the Plaintiff. The Plaintiff's billing would then be based in part upon this rate.

The subject contracts provided for PennDOT to audit the Plaintiff's accounts periodically, and after GeoMechanics submitted its proposed overhead rate in 1998, PennDOT scheduled and conducted an audit from July 27, 1999 to November 23, 1999. As a result of the audit conducted by the Bureau of Audit, Comptroller's Office, Department of Transportation, PennDOT presented GeoMechanics with a demand on March 3, 2000, that it forward PennDOT a check in the amount of \$221,955.62. PennDOT sought \$192,552.00 for general and

administrative overhead adjustments, \$28,403.62 for unsupported CADD computer costs and \$1000.00 for a billing error.

By letter dated April 5, 2000, GeoMechanics disputed the findings of the audit report on the basis that the auditor had arbitrarily divided GeoMechanics into three separate business units for purposes of establishing overhead rates to be applied to the 43 separate agreements. GeoMechanics also stated that the auditor never permitted GeoMechanics to restate its expenses into one or more business units. By letter of January 24, 2001, PennDOT, through its Assistant Counsel, Michael D. Alsher, informed GeoMechanics that it did not agree with Plaintiff's position and demanded repayment.

By letter dated February 21, 2001, GeoMechanics requested a decision of the contracting officer under the Commonwealth's Procurement Code in order that PennDOT could provide the contractual and factual basis for PennDOT's position. A review by the contracting officer would have permitted GeoMechanics the opportunity to have a "procurement official" with expertise in procurement matters review the controversy. By letter dated March 6, 2001, Donald Childs, P.E., Chief, Consulting Agreement Division, indicated that he had been designated the contracting officer and denied Plaintiff's claim on the basis that no contracting officer decision is available in a situation where PennDOT is asserting a claim. On April 6, 2001, a claim was filed by GeoMechanics before this Board, and a hearing was held on January 12 and 13, 2004.

The \$192,552.00 sought by PennDOT is based on the application of the FAR cost accounting standards. As indicated above, GeoMechanics provides services in three areas and receives income from these three sources: engineering/drafting, drilling, and laboratory testing. The Defendant asserts that under FAR the Plaintiff should have been allocating its costs among these three segments, and that GeoMechanics' failure to do so as well as other inaccuracies in

allocating direct and indirect costs among these segments resulted in over billing and PennDOT's overpaying for these services.

GeoMechanics' yearly submissions reflected a limited amount of segmenting until 1996 and 1997 when SARP states that the statement of expenses was conducted "in accordance with Federal Acquisition Regulation part 31 (48 CFR Ch. 1)." (Exhibits P-17 and P-18) SARP provided two statements of expenses, one for the engineering segment and one for the drilling segment. Laboratory expenses were not separated out.

FAR Section 31.001 (definitions) defines "segment" as "one of two or more divisions, product departments, plants, or other subdivisions of an organization reporting directly to a home office, usually identified with responsibility for profit and or producing a product or service." FAR 31.201-1 states that the total cost of a contract is the sum of the direct and indirect costs allocable to the contract. Under FAR Section 31.201-4, cost is allocable to a contract if it is incurred specifically for that contract. FAR Section 31.203 (indirect costs) defines "indirect costs" as "any costs that are distributed between 'final cost objectives,' i.e., the various segments of a company."

The Plaintiff argues that the Defendant had ample opportunity to point out the requirements of FAR 31.201-6 and FAR 31.001 at the time of the 1994 audit and that PennDOT should have raised the application of the FAR standards each time GeoMechanics submitted its overhead computations and overhead rate. The Plaintiff also contends that it is unfair to expect a small, specialized geotechnical consultant with fewer than 50 employees and sales under \$4,000,000.00 to understand the FAR applications. The Defendant points out that SARP & Company, the accounting firm used by the Plaintiff, should have been familiar with the federal rules and regulations and their application to the subject contracts and billing calculations.

The Board finds that the FAR were applicable to all of the subject contracts and that the regulations required GeoMechanics to allocate its costs according to costs specifically incurred for the contracts and according to the company's discernable segments. We agree with PennDOT that there were three discernable segments: engineering, drilling, and laboratory and that it was appropriate to adjust the overhead calculation. Under the subject contracts, the Plaintiff was paid for its direct labor based upon specified hourly rates for each category of professional employee that was to work under the subcontract plus a percentage rate applied against the direct labor billed for overhead based upon the Plaintiff's indirect costs in delivering its services.

#### Application of FAR Requirements

The next issue then is the application of the segmenting principles to the three segments. As discussed below, the Defendant's auditor sought to calculate overhead rates for each year and each contract. The Plaintiff accepted all of the auditor's calculations with the exception of the allocation of its employees' time among the three business segments. The Plaintiff argued that the review of individual time sheets by its officers provided a more accurate account of the actual allocation of labor than does the auditor's assumption that the wages to be attributed to the laboratory segment consisted entirely of those of one employee.

Philip Judge, auditor and author of the audit report dated November 23, 1999, explained in his testimony how he reviewed the Plaintiff's submitted information and also its actual general ledgers of records and how he did sampling to ensure the veracity and accuracy of various items. (N.T. 323-35) He then determined for each year how costs would be designated as direct or indirect and which costs would be allocable to each segment. He also noted that he reviewed each contract and compiled a record of all 43 agreements and the stipulated rate from which the

contractor is allowed to bill his direct labor costs. (N.T. 422-24, Exhibit D-2, Folder 6) Since 1993, there has always been a FAR rate and a State (PennDOT) rate. (N.T. 423) Mr. Judge stated, “That’s why the adjustment schedule was rather difficult to construct because in the overall adjustments for general and overhead expenses there were contracts that had all PennDOT and no FAR and some that had all FAR and no PennDOT and some that had both. So you had to be very careful to the percentage that you applied to those adjustments....” (N.T. 379)

The auditors were seeking to calculate overhead rates for what they considered to be engineering expenses, only, for purposes of the services performed by GeoMechanics for the PennDOT agreements. (N.T. 408-09) Costs, such as utilities and plant expenses, had to be allocated. Mr. Judge testified that GeoMechanics and their CPA, Sarp and Company felt that an allocation of 15 percent to the laboratory segment was reasonable. He agreed that the costs were small and it would be too tedious to go through each expense item individually. The auditor applied an 85/15 per cent allocation for utilities and plant expenses between engineering and laboratory segments then. (N.T. 367-70)

The auditors then addressed segmenting employee wages. Initially, for some years the wages were not segmented at all. For some of the later years audited the wages were initially divided by Geo-Mechanics into two segments - drilling and engineering. Chairman Smith asked Mr. Judge to further explain how he distinguished which employees were engaged in engineering and which were engaged in drilling. Mr. Judge stated that in the company’s general ledger account numbered 601-D in the company’s records showed all the wages of all the employees that were assigned to the drilling operation. He then considered that total dollar figure for wages of account 601-D and totaled up employee sheets that were maintained by the bookkeeper,

whose sum total would match that. (N.T. 399-406) He went on to testify that Geo-Mechanics' bookkeeper marked the auditors' records to indicate who was included in engineering and who was included in drilling. (N.T. 403)

Mr. Judge believed that it was necessary to segment the Plaintiff's services into a third area and to separate out lab wages. After discussion with Todd Bolland, Plaintiff's employee, and Carole Licht, GeoMechanics' bookkeeper, he subtracted the wages of Mr. Bolland from the engineering segment and placed them with the laboratory segment. He learned that Mr. Bolland was the primary person who did the *in-house* lab tests, and Mr. Judge assumed that, with minor exceptions, he was the only employee doing laboratory work. (N.T. 352-55)

A final wage calculation involves the salaries of the officers. Mr. Judge testified that in segmenting the officers salaries he applied a percentage of each officers salary to each segment. The percentage was calculated by dividing the labor for a segment by the total labor cost. However, for some contracts and certain years, PennDOT had a salary cap that indicated that a contractor could not bill over a certain hourly rate, e.g. \$30 or \$35 per hour, and he was required to calculate hourly rates and adhere to those limits. (N.T. 372-73)

As discussed above, the overhead rates for each contract were represented by a fraction in which the numerator is generally the allowable indirect costs and the denominator is always the direct labor. (N.T. 372-81) Thus, under an overhead rate for PennDOT, the officers salaries would be paid as direct costs up to the maximum and the remainder, if any would be included in the indirect costs, allowing the contractor to recover a little more of the officers' salaries. (N.T. 378) Mr. Judge also testified that a new FAR policy of not limiting the amount that a principal or officer of a company could charge took place in 1996. (N.T. 380)

The Plaintiff argued that it was able to compile a more accurate allocation of its employees' time which showed that other wages and costs should be allocated to the laboratory segment. During the hearing, Javaid Alvi, President, and Walter Lorence, Vice-President of GeoMechanics testified that they were able to reconstruct and allocate the hours of each of their employee's time to one of the three business segments being required by the auditors. They could also determine whether the time should be considered as direct charges or indirect charges. Also, as officers, they were in a position to know each employee, his/her job duties and the project that the individual was working on. (N.T. 44-54, 194-97, 231-35) They reviewed each two-week time card for all employees who were in engineering or laboratory work for each of the six subject years. Dr. Alvi explained that sometimes employees did work in both areas. The time cards reflected this and Dr. Alvi would also add notations, such as "E" for engineering, "L" for Laboratory, "D" for direct or "I" for indirect. (N.T. 32-40) Mr. Lorence also explained that they went back to confirm tick marks on time sheets with their in house project numbers to understand exactly what an individual employee might have been working on on a certain day. (N.T. 233-34)

Then each time sheet was turned over to Carole Licht, GeoMechanics' bookkeeper, who created spreadsheets to capture the allocation of time and wages by the three business segments. These spreadsheets were given to Cathy Caccia, a certified public accountant employed by SARP & Company, the accounting firm used by GeoMechanics. The above spreadsheets created by GeoMechanics' bookkeeper were used by Ms. Caccia to recalculate PennDOT's overhead rate, as well as the FAR overhead rate. She testified that she did not change any of the other adjustments that Mr. Judge had made to overhead computation for each audited year. In other words, Ms. Caccia used all of Mr. Judge's computations except that she used the allocations of

lab and engineering time as compiled in the reallocation by Dr. Alvi and Mr. Lorence, thus, rejecting Mr. Judge’s assumption that Mr. Bolland’s time constituted the entire amount of labor to be allocated to the laboratory segment. (N.T. 118-23)

For each of the PennDOT auditor’s schedules 3 through 8 (for each year from 1994 to 1999) contained in the 1999 Audit report, Ms. Caccia deducted the amount of direct labor attributable to the laboratory as compiled in the reallocation by Dr. Alvi and Mr. Lorence from the total of direct labor (the denominator) that the auditor used in developing both the FAR overhead rate and the PennDOT overhead rate. According to the auditor’s notes, such wages were only attributable to one or two laboratory employees. (N.T. 118-20) Ms. Caccia deducted the total dollar amount of wages attributable to the laboratory segment (with a similar adjustment to add back the PennDOT auditor’s indirect wages attributable to the one or two laboratory employees) and categorized as “allowable indirect costs” from the numerator of the auditor’s equation for both the FAR and the PennDOT overhead rate.

As indicated in the Findings of Fact, Ms. Caccia developed the following FAR and PennDOT overhead rates:

	FAR Rate	PennDOT Rate
1994	147.21	135.54
1995	134.34	134.99
1996	116.72	117.45
1997	124.97	124.45
1998	139.60	132.74
1999	145.97	142.74

(N.T. 122, Exhibit P-13)

Mr. Lorence testified that he took Ms. Caccia’s rates and plugged them into an EXCEL spreadsheet reflecting computations originally developed by the PennDOT auditor, Mr. Judge.

(N.T. 200-01, Exhibit P-14) The spreadsheet addressed the many factors that had to be

considered as they were in Plaintiff's Exhibit 2 on the Auditor's Schedule 1, including the maximum allowable percentage permitted under many of the agreements. Additionally, Mr. Lorence's calculations compared the amount that PennDOT was claiming pursuant to its 1999 audit with the amounts that were owing to each Party (PennDOT or GeoMechanics), using Ms. Caccia's calculations of the overhead rates.

The Board was well impressed with the candor and credibility of the Defendant's witness, Mr. Judge, and the Plaintiff's witnesses, Dr. Alvi and Mr. Lorence. The Board finds all three to be credible. However, we believe that the review of time sheets on a task-by-task basis as was performed by Dr. Alvi and Mr. Lorence, who had first hand knowledge of their company's projects and their employees' work, to be a more accurate method of allocating wages to the engineering or lab segments than Mr. Judge's method described above. In all other aspects, we find Mr. Judge's testimony and audit methods for allocating other cost items such as depreciation, insurance costs, etc., to be more accurate than GeoMechanics' segmentation of expenses.

Thus, the Board finds the "Recomputed General and Administrative Overhead Adjustments" as calculated in Plaintiff's Exhibit 14 incorporates the most accurate segmentation of wages and expenses in the overhead rates calculated from Plaintiff's Exhibit 13. The reimbursement calculations as derived from Plaintiff's Exhibit 14 are more accurate than those produced in the Auditor's Schedule No. 1 from Plaintiff's Exhibit 2. Accordingly, PennDOT is entitled to overhead payment reimbursement from GeoMechanics in the amount of \$5,683.49. (Board Finding)

The second matter at issue is the Defendant's demand for reimbursement for unsupported Computer Aided Drafting and Design (CADD) costs pursuant to its audit. (Exhibit P-2, p.15)

GeoMechanics billed PennDOT for CADD costs on several highway design contracts. FAR regulations require contractors to use actual cost data when billing for equipment operating costs. (FAR Section 31.105) In its audit, PennDOT stated that GeoMechanics billed for estimated CADD equipment costs as opposed to actual costs and demanded reimbursement.

In January 1993, GeoMechanics had submitted to PennDOT a letter from SARP & Company computing an estimated hourly overhead factor of \$11.55 for computer and CADD systems. PennDOT did not respond to approve or disapprove the rate or its manner of calculation. (N.T. 220) However, in its April 5, 1994, audit, PennDOT notified GeoMechanics that it must refund \$4,643.11 for computer costs because it billed at the \$11.55 rate which was calculated for fiscal year 1992. The audit report also noted that an outside accounting firm for the Plaintiff had been instructed to prepare the calculation of a rate for fiscal year ending 1993, but this had not been completed. Since the rate used was not based on actual costs, a refund was requested in the amount of \$4,643.11 for 1993. (Exhibit P-4)

Again in the 1999 audit, it was pointed out that GeoMechanics was not using actual CADD costs in its billing for the audit period 1994-1999. Mr. Lorence testified that they did not make the calculation because they had still not received guidance from PennDOT as to how they should present the information and that the amount was a relatively minor cost compared to the alleged costs for the overhead inconsistencies. (N.T. 223) Since the audit findings five years ago, GeoMechanics has not calculated the actual costs and declined to do so during this proceeding.

After Plaintiff's attorney requested the opportunity for Mr. Lorence to make the above calculation during the second day of his testimony at trial, Mr. Lorence testified that it would cost too much to go back, review the records and bring in experts to support their case.

(N.T. 296) The Plaintiff does not dispute that FAR requires that billing must be based on actual costs and that GeoMechanics used an estimated rate. On cross-examination, Mr. Lorence conceded this and testified, “It is not worth our benefit to go back in and revisit those records and generate a CADD billing rate.” (N.T. 302)

Thus, the parties agree that GeoMechanics performed CADD services for PennDOT and billed for the services at an estimated rate, rather than billing for the actual costs as required by the FAR. Although the Plaintiff seeks to have the Board make a determination as to what the appropriate rate for the actual costs should be, the Plaintiff gives no meaningful guidance as to how to calculate the actual cost. In point of fact, Dr. Alvi said that it’s not worth it. (*Id.*). Accordingly, since the contracts and regulations require that the billing be for actual costs, the estimated billings for CADD services for 1994-1999 must be disallowed. PennDOT is entitled to reimbursement, as discussed below. (Board Finding)

The Defendant seeks reimbursement for unsupported CADD services in the amount of \$28,403.62, and footnotes one and two in Exhibit P-2, p. 15, indicate that that amount includes \$5,006.93 and \$138.60 of costs carried forward from previous audit AR # 3H060. However, “Audit report No. 3H060, Auditors’ Schedule No. 1” found in Exhibit P-4 (which was discussed above) lists the total amount billed as \$4,643.11, with no mention of the above amounts. (The derivation of this total was explained at length in Finding No. 3 of that same auditors’ report.) Mr. Lorence also testified that there was nothing else in the audit report that indicated that there would be additional charges levied in connection with that report. (N.T. 185-86)

Therefore, the Board finds that pursuant to AR # 3H060, for the unsupported CADD costs, the amount of \$4,643.11 should be included in that owed to PennDOT and the amounts of \$5006.93 and \$138.60 should not. This results in a net reduction of \$502.42, and so the

Defendant is entitled to a refund for CADD charges in the amount of \$27,901.20. (Board Finding)

The final refund sought by the Defendant is \$1000.00 for a billing error. GeoMechanics does not dispute the audit's finding of this over billing. (N.T. 183) The Defendant is entitled to a refund in the amount of \$1,000.00. (Board Finding)

As per Joint Stipulation No. 6, the Defendant will accept payment from Plaintiff directly without seeking payment from any of the prime contractors for whom Plaintiff acted as a sub consultant.

**ORDER**

AND NOW, this 16<sup>th</sup> day of December, 2004, the Board of Claims hereby finds in favor of the Defendant, Commonwealth of Pennsylvania, Department of Transportation, and against the Plaintiff, GeoMechanics, Inc., in the amount of Thirty Four Thousand Five Hundred Eighty-Four Dollars and Sixty-Nine Cents (\$34,584.69), comprised of the following: \$5,683.49 for overhead; \$27,901.20 for CADD costs; \$1,000.00 for invoice error. Interest is awarded on each amount of damage at the statutory rate of six percent (6%) per annum from March 3, 2000, the date when the Defendant presented the Plaintiff with a demand for payment in the above areas after the audit.

Each party shall bear its own costs and attorneys fees.

BOARD OF CLAIMS

\_\_\_\_\_  
Jeffrey F. Smith  
Chief Administrative Judge

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Ronald L. Soder, P.E.  
Engineer Member

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John R. McCarty  
Citizen Member

**OPINION SIGNED**