

COMMONWEALTH OF PENNSYLVANIA

H. PLATT COMPANY : BEFORE THE BOARD OF CLAIMS
: :
VS. : :
: :
COMMONWEALTH OF PENNSYLVANIA, : :
DEPARTMENT OF GENERAL SERVICES : DOCKET NOS. 3258, 3260, 3358,
3465

FINDINGS OF FACT

1. Plaintiff H. Platt Company (“H. Platt”) is a Pennsylvania corporation, with its principal place of business from 1925 through the term of the contract in Erie, Pennsylvania. (Notes of Trial Transcript, pages 30-31, [“N.T. 30-31”]; Exhibit P-2 [Ex. P-2]).

2. Defendant Commonwealth of Pennsylvania, Department of General Services (“DGS”) is an agency of the Commonwealth with its principal offices located in Harrisburg, Pennsylvania. (Exs. P-2, P-3).

3. On August 4, 1999, DGS awarded H. Platt Contract No. 800-220-1 (“Contract”) for a contract bid of \$ 7,700,000. H. Platt was to be the general contractor on the project. The total project was \$12,000,000.00. (N. T. 35; Ex. P-2).

4. The purpose of the contract was to construct the Junker Building, a two story building on the Behrend Campus of Penn State University in Erie, Pennsylvania, which contained a swimming pool, large locker room areas, athletic offices, classrooms, a work-out area, and a gymnasium. (N.T. 32, 45-46, 76).

5. Celli-Flynn & Associates (“Celli-Flynn” or “Professional”) was the architect for the project. (N.T. 474; Exs. P-1, P-5).

6. Gregory Walker (“Walker”) was the project manager for Celli-Flynn. (N.T. 474; Ex. P-1).

7. Peter Smith (“Smith”), an engineer and building contractor, was the president of H. Platt Company. (N. T. 31).

8. Matthew Rose (“Rose”) was a civil engineer employed by H. Platt as the designated estimator and the project manager for the project. (N.T. 38, 451).

9. Robert Wagner (“Wagner”) was the DGS construction inspection supervisor on this project and was responsible for working between the contractor, the professional and DGS and keeping the project on time. (N.T. 608-609).

10. John Bender (“Bender”), a soils engineer and a registered geologist, was employed by DGS. He was called by Mr. Wagner to come to the site for consultation regarding the retaining wall. (N.T. 268-269, 277).

11. James Hunt (“Hunt”) was an independent consultant hired by Penn State to assess the cause of the damage to the gymnasium floor. He testified at trial as an expert in forensic architecture. (N.T. 216, 681-682, 673-674).

12. The initial bid invitation, plans and specifications for the project were issued April 4, 1999. (Ex. P-2).

13. On April 22, 1999, Smith from H. Platt attended a controlled site visit held at the Penn State Behrend Campus where the Professional answered questions pertaining to the site work. Prior to attending the conference, H. Platt representatives had an opportunity to study the plans and specifications. H. Platt paid particular attention to estimating what the quantity and cost of the site excavation work would be because it was going to be a major portion of the project. (N.T. 34-36; Ex. P-1).

14. During the pre-bidding process, H. Platt sent out inquiries to hundreds of subcontractors and material suppliers to put together an estimate for the project. (N.T. 37-38).

15. H. Platt submitted its bid for the contract and learned it was the low bidder on May 19, 1999. DGS had 90 days from that date to award the contract. (N.T. 38, 45-46, 353).

16. The contract duration was 400 days from the date it was executed and it provided for liquidated damages of at least \$1,750 per day if the contract deadline was not met. (N.T. 48-49, 361-362).

17. H. Platt signed the contract on June 27, 1999. (Ex. P-2).

18. The contract was executed by DGS and became effective on August 4, 1999. (Ex. P-2).

19. On August 5, 1999, H. Platt was notified that the contract had been executed and that it was authorized to incur off-site costs associated with the contract. (N.T. 47, 355; Ex. P-3).

20. Under the contract’s terms, H. Platt, as the lead contractor, had the responsibility to prepare the preliminary and master progress schedules for the work to be done by all contractors on the Behrend project. H. Platt did develop these schedules. (N.T. 48-49, 390-392, 464-46; Ex. P-2, P-73).

21. Section 63.34 of the General Conditions of the contract states that H. Platt is solely responsible for all construction means, techniques and procedures (“means and methods”) for work under its contract. (N.T. 556, 558; Ex. P-73).

22. Section 63.36 of the General Conditions provides, inter alia, that, unless otherwise specifically noted, H. Platt shall provide and pay for all labor, materials, equipment . . . necessary for proper execution and completion of the work. It also states that H. Platt shall furnish such equipment and/or materials necessary for the proper prosecution of the work . . . at a satisfactory rate of progress. There was no notation otherwise that H. Platt was not to supply the steel I beams for the retaining wall. (Ex. P-73; Board Finding).

23. On August 18, 1999, DGS issued the notice to proceed and held the initial job conference. (N.T. 49-50, 61-63, 355, 648; Exs. P-4, P-5).

24. The final completion date for the project was scheduled to be September 21, 2000. (N.T. 50).

A. Over Excavation and Additional Backfilling Issues Related to Steel Delivery

25. Pursuant to its contract, H. Platt was responsible for supplying all the structural steel used in construction of the project. (Ex. P-73; Board Finding).

26. As part of the project, H. Platt was required to construct a retaining wall on the south side of the new multi-purpose building hereinafter referred to as the gymnasium. The design of the retaining wall required large pieces of structural steel I beams. These large I beams were to be buried in the ground along the slope to be removed, and precast concrete wall sections were to be slotted in between the webs of the I beams to act as the retaining wall. This design facilitated a “top-down” method of constructing the retaining wall because once the I beams were driven into the slope and a precast concrete wall section slotted in place, the face of the slope could be excavated below the wall section, which would descend into place by force of gravity while additional concrete wall sections were placed on top of it. By repeating this process section after section until the desired elevation was reached, the slope face could be removed and the wall could be built by slotting the precast sections at the top and progressing downward with minimal disturbance to, or excavation of, the ground behind the retaining wall. (N.T. 39- 42, 73-78, 615-616; Exs. P-7A, P-7B, P-77).

27. From May to August 1999, Mr. Smith and Mr. Rose from H. Platt looked for the major materials needed for the project. This included gathering price proposals from suppliers and subcontractors to provide the I beams. H. Platt, however, could not properly enter into any written contracts because DGS had not yet executed the contract with H. Platt. (N.T. 42-43, 48, 52, 456-458, 462; Ex. P-68).

28. During June of 1999, H. Platt was told by one company representative from Art Iron, Inc., that these size steel I beams had limited availability and might be difficult to get. A representative of Art Iron told Mr. Smith that the next rolling date from a steel mill in Arkansas that made the specified steel would not be until January 2000. Mr. Smith continued to look for other sources for the steel. (N.T. 52-54, 461; Exs. P-68, P-75).

29. Mr. Smith testified that he had no specific discussions with any steel suppliers before H. Platt bid the contract about lead times for receiving the steel I beams. He called

sources for prices but did not discuss specific delivery dates. Mr. Rose testified that he had inquired of suppliers and/or subcontractors regarding the availability of these steel I beams as well as pricing. The Board finds the testimony of both Mr. Rose and Mr. Smith as to “availability” and delivery time discussions to be vague at best, and we are unpersuaded that anyone from H. Platt made adequate inquiry about the availability of these steel I beams until after its contract was fully executed on or about August 4, 1999. (N.T. 44, 51-55, 338-348, 433-444, 445-448, 452-464; Board Finding).

30. On August 5, 1999, H. Platt was notified that DGS had executed the contract. H. Platt could then enter into contracts for materials, and it then began serious negotiations with various parties to obtain the steel for the retaining wall. (N.T. 51).

31. The retaining wall was one of the first items of work which needed to be performed, and construction on the retaining wall was scheduled to begin on October 13, 1999. The project schedule showed that the steel I beams were supposed to be delivered to the site on October 14, 1999 and, as soon as they were installed, H. Platt could then start the mass excavation of the embankment to be removed at the south end of the gymnasium. (N.T. 526-527; Ex. P-19).

32. Mass excavation of the embankment in front of the retaining wall to be built was a necessary precursor to the start of construction of the new gymnasium (e.g. the placing of footers and foundations) because the bank in front of the retaining wall needed to be cut and this material moved to fill in other areas in order to form a level ground area on which the new gymnasium was to be built. (N.T. 79-82; Exs. P-7A, P-77).

33. Soon after August 5, 1999, when it entered into serious negotiations to purchase the required steel I beams, H. Platt became aware that it would be difficult to obtain the structural steel for the retaining wall by October of 1999. H. Platt subsequently discovered that these size I beams were not then available; that only one mill in the United States, the Nucor-Yamato Mill (“Nucor”) in Arkansas, rolled the specific sizes of I beams needed for the retaining wall; and that Nucor would not roll this size beam again until January 2000. (N.T. 54-55, 84-84, 340, 351, 445, 462; Ex. P-10).

34. H. Platt was unaware of the limited availability of, and the need to ascertain lead times and rolling schedules for, the specific type of I beams required on the Behrend project for the retaining wall before submitting its bid and executing its contract. (N.T. 44, 51-55, 338-348, 445-448, 452-464).

35. Mr. Smith testified that he was unfamiliar with the workings of the steel industry in general before he became aware of this problem with the availability of the retaining wall I beams. He also noted that H. Platt had typically utilized subcontractors to perform steel work on projects in the past even though H. Platt, in this instance, considered purchasing the steel I beams for the retaining wall directly from a supplier and installing them itself on the Behrend project after receiving price quotes from the prospective subcontractors and suppliers for this job. (N.T. 51-55, 338-348, 445-448, 452-464).

36. H. Platt would have had to order the steel I beams needed on this project from Nucor prior to June 1999 at the latest (Nucor's prior rolling date for this size I beam) in order to have them available for H. Platt's scheduled delivery date on the project of October 14, 1999. Accordingly, as a matter of fact, the steel I beams needed for the retaining wall, as designed, were not available for delivery to the project per H. Platt's schedule when H. Platt signed and returned its contract for the Behrend project (i.e. June 27, 1999). (N.T. 52, 326, 351-352; Ex. P-68).

37. The unavailability of the steel I beams needed for the retaining wall for delivery in October 1999 as initially scheduled by H. Platt arose before H. Platt executed its contract with DGS for work on the Behrend Campus and well before the contract was fully executed on August 4, 1999. Therefore this unavailability was not, as a matter of fact, a supervening event to the formation of the contract at issue. (N.T. 52, 326, 351-352; Ex. P-68; Board Finding).

38. After August 5, 1999, the required I beams would not be rolled until January 20, 2000. As initially planned, the steel then had to go to a fabricator, so it could not have been delivered to the site until mid-March 2000. (N.T. 57, 92-94).

39. In mid-September, Mr. Smith from H. Platt discussed the problem of steel availability for the retaining wall with representatives of the Professional, DGS and Penn State. DGS did not want to grant H. Platt any extension of the project to wait for the steel. (N.T. 56-57, 66, 68, 462-463, 475).

40. Prior to the bid, the Professional, DGS and H. Platt were all unaware that there could be a problem in obtaining the steel I beams specified for the retaining wall in a timely fashion. (N.T. 44, 445).

41. Representatives of both the Professional and DGS subsequently investigated the steel availability problem and confirmed that the specific steel for the I beams would not be available from any American steel plant until January 2000. (N.T. 71, 495-497, 642).

42. All parties agreed that the steel I beams originally specified for the retaining wall were not available for delivery when initially scheduled for installation by H. Platt. (N.T. 118, 495-498).

43. In October 1999, H. Platt, DGS, and the Professional began to discuss other construction strategies in order to keep the project on schedule, since waiting for the steel I beams could have meant a delay from October of 1999 through March of 2000 for starting the retaining wall and commencing construction of the gymnasium's foundation. (N.T. 57).

44. Using the "top-down" construction technique for the retaining wall, as allowed for by the steel I beam design and originally contemplated by H. Platt, would have delayed the entire project several months and could have potentially exposed H. Platt to the imposition of liquidated damages of \$1,750.00 per day for "unexcused delays" beyond the contract completion date. (N.T. 55-57, 68, 101; Ex. P-2).

45. To solve the steel I beam unavailability problem for the retaining wall, H. Platt had the option, under the terms of the contract, to seek an extension of time. However, since time was of the essence because Penn State planned to use the gym facility in the fall semester of 2000, DGS denied H. Platt's application for an extension of time. (N.T. 67-68, 97, 100-102, 500-501, 560; Exs. P-2, P-12, P-17, P-18, P-21, P-22).

46. To solve the steel unavailability problem, H. Platt also had an option under the terms of the contract to request to use foreign steel by getting an exemption from the Steel Products Procurement Act that required all steel and cast iron products used in the project to consist of at least 80% steel made in the United States. Mr. Smith testified that he did not request to use foreign steel because he believed the request would be denied, and, hence, pointless. Testimony from DGS representatives confirmed that any such waiver request would have been denied. (N.T. 65, 349-350, 561-563; Exs. P-2, P-6, P-73).

47. Since the options of getting an extension of time or using foreign steel were not available to H. Platt to avoid delay and liquidated damages, H. Platt proposed a different construction technique to create the retaining wall. This alternative involved over-excavation of the embankment both in front of and behind the retaining wall location to allow the cut and fill operation to level the ground for construction of the gymnasium foundation to begin before installation of the retaining wall. This would then be followed by subsequent construction of the retaining wall and backfilling of the area behind the retaining wall once the steel I beams were delivered. (N.T. 69-82; Exs. P-7A, P-7B).

48. In October 1999, DGS and the Professional agreed to allow H. Platt to change to this "bottom-up" method of building the retaining wall because it would keep the project on schedule. H. Platt believed that the change in the method of construction of the retaining wall from the original "top-down" method to the "bottom-up" method would be more cost-effective than would have been the case if liquidated damages had been assessed against it for the delay. (N.T. 81-82).

49. H. Platt quoted DGS a price to over-excavate for the retaining wall in order to commence with site grading and gymnasium construction. Then, after the steel for the retaining wall was acquired, the retaining wall would be built and backfilled with the existing excavated material. The original request for change order was in the amount of \$158,671.02. (N.T. 105; Exs. P-20, P-24, P-2, P-28).

50. If the retaining wall had been constructed as originally designed and scheduled, there would have been no need to excavate and backfill behind the retaining wall. (N.T. 376, 481-482).

51. The over-excavation work for the alternative "bottom-up" method of constructing the retaining wall began in October of 1999. (N.T. 83).

52. During October 1999, H. Platt received quotations for the steel I beams from various sources, and in November 1999 H. Platt ordered them from Art Iron, Inc. After the I beams arrived, H. Platt constructed the retaining wall using the alternate technique. The

retaining wall itself remained essentially as originally designed and performed the same function as called for in the plans and specifications. (N.T. 91-92, 95-96, 273; Exs. P-7, P-8, P-9, P-11, P-13, P-77; Board Finding).

53. The steel I beams needed for construction of the retaining wall (as originally designed) were not, as a matter of fact, impossible or impracticable to procure, they were only unavailable for delivery by the time they were scheduled by H. Platt to be installed. (F.O.F. ¶ 25-51; Board Finding).

54. H. Platt's requested change order for this excavation behind the retaining wall was denied by DGS because it deemed the excavation behind the retaining wall to be "means and methods" used to minimize delays associated with the steel I beam delivery issue, not work beyond the scope of the contract. (N.T. 82-83, 97, 100-102, 563-564; Exs. P-12, P-17, P-18).

55. Since H. Platt proposed using a different construction method than planned to build the retaining wall in order to avoid delaying the project (i.e. over-excavating the embankment behind the retaining wall and constructing it using the "bottom-up" method so construction of the gymnasium foundation would not be delayed), but the basic design and materials of the retaining wall itself remained unchanged, the Board finds that the excavation work necessary to construct the retaining wall by a "bottom-up" method was not work outside the scope of the contract, but was means and methods chosen by H. Platt to construct the retaining wall and allow gymnasium construction to proceed in a timely fashion. (F.O.F. ¶ 25-54; Board Finding).

56. H. Platt also incurred costs for replacement of the fill it had excavated behind the retaining wall. Under the original design for the retaining wall, H. Platt expected this soil behind the wall to remain undisturbed. (Ex. P-24, p. 2, P-28).

57. As noted above, H. Platt's new plan to build the retaining wall from the "bottom-up" involved excavating behind the wall into the hillside. After it completed the retaining wall pursuant to this alternate sequence of construction, H. Platt still planned to backfill the area with the same material that had been excavated. No one from DGS indicated to H. Platt that it could not backfill with the same material at the time H. Platt undertook to over-excavate the embankment. (N.T. 78-81, 105-107; Ex. P-25).

58. After H. Platt over-excavated the area where the retaining wall was to be constructed, the Professional retained the services of a geotechnical firm (Atlantic Engineering Services) to test the properties of the excavated material. Based on the test results, the material was deemed unsuitable to be used as backfill behind the retaining wall by the Professional and DGS. Instead, H. Platt was directed to use a more granular material to limit horizontal pressure from being induced on the retaining wall, most particularly from anticipated backfill compaction procedures and equipment. In addition, the direction to H. Platt placed restrictions on allowable compaction procedures and called for placing a one-foot layer of AASHTO #57 stone behind the retaining wall and installing a 6 inch diameter perforated drain pipe at the base of the wall. (N.T. 106-107, 112-113; 482; Ex., P-24).

59. The geotechnical firm employed by the Professional also stated in Note 3 on the sketch that was provided with its backfilling recommendations adopted by DGS that “for wall backfill GM, GC, SM and SC are unsatisfactory.” (Ex. P-24).

60. Section 02200 of the Specifications, Part 2 – Products, Paragraph 2.2 Fill Materials, subparagraph A1, Soil Fill Materials states, among other things, that satisfactory fill or backfill shall be of Soil Classification Group GM, GC, SM or SC. (Ex. P-73).

61. When DGS informed H. Platt that the excavated material could not be used to backfill the retaining wall, H. Platt hired Urban Engineers and its subsidiary, John H. Robinson Testing, to test the excavated soil. These test results indicated that the original material would be acceptable for backfilling purposes. In fact, the Soil Classification Groups identified in Urban Engineer’s soil tests were GC-GM, SC-SM and SC-SM. In other words, this soil was satisfactory fill per the original contract specifications. (N.T. 111-112; Exs. P-67; P-73: Board Finding).

62. DGS brought John Bender, a DGS soils engineer and geologist, to the site to consult regarding the new soil requirements for backfill material, and the parties attempted to find a less costly alternative. Mr. Bender initially suggested that at least some of the on-site soil could be used to backfill, but when Mr. Hooper of Atlantic Engineering Services objected, Bender recommended new but cheaper backfill materials, and the parties agreed to follow his recommendations. (N.T. 113, 270, 115, 273-274, 276; Exs. P-32, P-33).

63. According to Mr. Smith, when he met on site with Messrs. Bender, Hooper, Wagner and Walker, he made it very clear that, in Smith’s view, what they were recommending was a change in scope, and that H. Platt would be submitting a change order request for placing this backfill. He was told that this was the procedure to follow. (N.T. 115-116).

64. H. Platt then revised its original change order request from \$158,671.02 to \$94,923.61 due to change in the work scope of the original over-excavation (i.e. changing from over-excavating, storing on-site and placing the existing soil back behind the wall to excavating behind the retaining wall and hauling the excavated material off site). H. Platt then also submitted to DGS an additional change order request in the amount of \$174,974.20 for importing new material and placing said material behind the retaining wall. (N.T. 81-83, 122-123, 261-266; Exs. P-20, P-33, P-35).

65. DGS denied H. Platt’s revised and additional change order requests for the same reason cited in its original denial. (N.T. 81-83, 122-123, 261-266; Exs. P-20, P-33, P-35).

66. H. Platt performed the excavation and backfill work in connection with the retaining wall without a written approved change order from DGS. However, Mr. Smith maintained that prior to doing the work, representatives of DGS left him with the impression that he would be paid for the extra work. (N.T. 82-83, 110, 115-116; Exs. P-18, P-35).

67. Mr. Smith testified that Mr. Bender told him that he considered the excavation and backfilling work done in connection with the retaining wall to be extra work and that H. Platt

should be granted a change order from DGS. Mr. Bender testified that he felt at the time that H. Platt should have been fully or partially compensated for the work on the retaining wall. (N.T. 114-120, 274, 288-289; Exs. P-32, P-33, P-72).

68. The Board finds that H. Platt did not reasonably rely on Mr. Bender's statements before it constructed the retaining wall by excavating behind the wall and utilizing the "bottom-up" method to construct it because the statements were made after the over-excavation. Moreover, Mr. Bender was a DGS employed geologist, and Mr. Smith knew him to be a soils expert for DGS, not the DGS decision-maker respecting change order requests. The Board finds that Mr. Bender's statements and opinions regarding additional compensation were beyond the scope of Mr. Bender's actual or apparent authority to make them. Accordingly, we find no reasonable reliance by H. Platt on Mr. Bender's statements to support an estoppel argument with regard to the importation of new backfill either. (N.T. 110-114, 634-635; Exs. P-32, P-33, P-77; Board Finding).

69. Additionally, the Board finds Mr. Smith's description of his conversations with Mr. Walker of Celli-Flynn, Mr. Wagner (chief DGS inspector on site), Mr. Jones (described as Mr. Wagner's boss from Harrisburg) and other DGS personnel to be insufficient to establish that any of these individuals or others promised H. Platt on behalf of DGS that H. Platt would definitely receive an approved change order for additional payment on account of the over-excavation or new backfill occasioned by the alternative method employed to construct the retaining wall (as opposed to instructing H. Platt to pursue such claim for additional payment through the change order procedure as outlined in the contract). (N.T. 79-83, 101-102, 109-110, 113-116, 634-635; Exs. P-2, P-77).

70. DGS and the Professional denied H. Platt the right to use the excavated material as backfill behind the retaining wall and directed it to import new fill when, in fact, the existing excavated material's soil classifications met the requirements of satisfactory fill called for in the contract specifications. (F.O.F. ¶ 56-69; Board Finding).

71. Although the Board recognizes that an additional concern with using the existing soil to backfill the over-excavated portion of the slope behind the retaining wall was the compaction procedure anticipated if the old soil (as opposed to the new, more granular fill recommended) was used. However, Atlantic Engineering Services and the Professional still specified the allowable limits on compaction pressure and procedures in their instruction for the new fill and could have done the same for compaction procedures utilizing the existing fill. Moreover, H. Platt's testimony indicates that its intended compaction procedures for the old soil would not have run afoul of the compaction limits and procedures prescribed for the new fill. In short, the Board finds that DGS and the Professional could have addressed concerns regarding compaction limits and procedures with the old soil and alleviated these concerns without requiring H. Platt to remove the old soil (which was suitable for backfill per contract specifications). Accordingly, we find that removal from site of the old soil and replacement of same with new was work beyond the scope of the contract directed by DGS. (N.T. 375-377; Ex. P-24; F.O.F. ¶ 56-70; Board Finding).

72. H. Platt, after making adjustment for work variations since its original change order, now claims \$94,923.61 for the over-excavation behind the retaining wall and the trucking of this soil off the site as extra work beyond the scope of its contract. (N.T. 81-83; 261-263; Ex. P-20).

73. Additionally, H. Platt claims \$174,974.20 for the cost, importation and placement of the new fill behind the retaining wall. (N.T. 122-123, 266; Ex. P-33, P-35).

74. Since H. Platt chose to over-excavate the slope behind the retaining wall when it proposed to construct the wall from the “bottom-up,” and this was a means and methods chosen by H. Platt to build the wall, the over-excavation of the slope and the task of backfilling this area after constructing the retaining wall was not extra work outside the scope of the contract. However, the directive from DGS and the Professional to replace the existing material with new material (i.e. haul off the old fill and purchase and truck in new material) was extra work beyond the scope of the contract. (F.O.F. ¶ 25-73; Board Finding).

75. DGS did not contest, in any meaningful way, the reasonableness or accuracy of the costs identified by H. Platt for the over-excavation and fill replacement here at issue. (Board Finding).

76. The Board finds that H. Platt incurred costs for hauling the material excavated from behind the retaining wall off the site (which was work beyond the scope of its original contract), but that the cost of the over-excavation itself was not work beyond the scope of its contract. Therefore, the \$94,923.61 claimed must be reduced by \$33,902.36 (the cost of the over-excavation itself), which results in an extra cost of \$61,021.25 for hauling the old soil off the site. (Ex. P-20; Board Finding).

77. The Board also finds that H. Platt incurred costs for purchasing and importing new backfill material as work beyond the scope of its original contract, but that the cost associated with placement of the new backfill material was not work beyond the scope of its contract (as this placement of backfill was a necessary part of its over-excavation). Therefore, the \$174,974.20 claimed must be reduced by \$23,119.47, which results in an extra cost of \$151,854.73 for purchasing and hauling the new material to the site. (Ex. P-33; Board Finding).

78. Thus, the Board finds that H. Platt incurred costs of \$212,875.98 (\$61,021.25+ \$151, 854.73) for work beyond the scope of its original contract at the direction of DGS for providing new backfill material for the excavation behind the retaining wall. (F.O.F. ¶ 58-77; Board Finding).

B. Pool Pit Backfill Issue

79. As part of the project, H. Platt was required to construct a swimming pool which required a pool pit that was 29 feet deep. (N.T. 125, 126; Ex. P-41).

80. H. Platt excavated the area for the pool pit, stockpiled the excavated material from the pit and poured the foundations. Later H. Platt planned to backfill the pit with soil stockpiled from the excavation. (N.T. 125-127).

81. The excavated material was tested initially by the DGS soil engineer and approved for use as backfill. (N.T. 484).

82. The Professional told H. Platt to keep the pile covered to preserve the consistency of the material if it wanted to reuse the material for backfill. (N.T. 618).

83. H. Platt tried to keep the excavated soil from getting wet by putting it in a pile between the retention wall and the building. The company then compacted the pile and placed some tarps and Visqueen on top. (N.T. 127-128, 131-132, 617).

84. Mr. Wagner, the construction inspection supervisor, testified that H. Platt did not do a good job of protection because the pile was never completely covered. He testified that the Visqueen material used was only 20 feet wide and it only covered the middle of the much broader pile. Mr. Wagner testified that H. Platt could have purchased more Visqueen material to better cover the pile but did not. The Board finds Mr. Wagner's testimony that H. Platt did not adequately protect the pool pile from the wet weather to be credible and reliable. (N.T. 617-619; Board Finding).

85. Under the contract, H. Platt was to utilize the means and methods necessary to protect the pool pile material depending upon the climate and conditions in the area. (N.T. 619).

86. In January 2000, H. Platt was ready to begin backfilling the pool pit, but the DGS soil engineer tested and rejected the fill material because it was too wet and would not compact properly. It did not then meet contractual requirements. DGS informed H. Platt that the material could not be used to backfill the pool pit unless it was dried out. (N.T. 127-128, 484, 503; Ex. P-36).

87. H. Platt was a contractor with experience doing construction in the winter in Erie, Pennsylvania where the weather is often very wet and very cold. These were the conditions that H. Platt encountered in the winter of 1999-2000 and should have been anticipated when H. Platt bid and constructed this project. (N.T. 134, 362; Board Finding).

88. The contract specifications included Sections 02200-8 3.10 B and 02200-8 3.10 C which provided two alternatives to H. Platt regarding backfilling the pool pit after it found out that the excavated soil was too wet to use. (N.T. 129-130; Ex. D-1).

89. Contract Specification 02200-8 Para. 3.10 B states, "Soil material too wet for proper compaction which has been removed, may be stockpiled or spread and allowed to dry. Material may be reused when moisture content has been lowered sufficiently to allow proper compaction." (Ex. D-1).

90. Contract Specification 02200-8 Para. 3.10 C states, “Soil material which has been stockpiled for future incorporation into the project shall be protected from becoming saturated. Stockpiled fill in a loose and/or unprotected condition, which becomes too wet for use, shall be spread and allowed to dry until suitable for use or replaced with borrowed fill material at no additional cost to the Department.” (Ex. D-1).

91. Completion of the pool pit portion of the project in a prompt manner was critical to continued progress on the remainder of the project. (N.T. 136).

92. If H. Platt had opted to spread the material and wait for it to dry out, that could have taken as much as three months; the project would have been delayed; and H. Platt could potentially have been assessed liquidated damages for the delay. (N.T. 135-136, 361; Ex. P-2).

93. Under the contract’s terms, H. Platt’s only practical alternative was to remove the wet pool pit material and import dry fill. In performing this work, H. Platt incurred costs of \$69,341.21. (Exs. P-36, P-73).

94. DGS denied H. Platt’s request for a change order for \$69,341.21 for removing the wet pool pit soil from the site and importing dry backfill material to replace it. (N.T. 137; Ex. P-38).

95. H. Platt did not adequately cover and protect the pool pit pile of backfill material, and it became too wet to use as a consequence. (F.O.F. ¶ 79-93; Board Finding).

96. H. Platt effectively chose one of the options under the contract to deal with the wet fill problem (i.e. replace the soil). Accordingly, the Board finds that H. Platt did not perform any extra work outside the scope of the contract. (F.O.F. ¶ 79-95; Board Finding).

C. Payment for Temporary Water Issue

97. Pursuant to the Contract Specifications Section 01030-B, 2.2A and B, the plumbing contractor was to bring water to the site to within ten feet of the building. (N.T. 144, 149; Ex. P-50, Para. 2.2 B).

98. At the initial job conference on August 18, 1999, DGS told H. Platt and the other contractors that temporary water to the site would be provided by the plumbing contractor (“the .3 contractor”), citing the terms of the contract, Section 01030-B, 2.2 A and B. (N.T. 366; Ex. P-5, p. 3).

99. Water lines were not available for use on the project until the end of the project when the water meter pit was installed. (N.T. 147-149).

100. H. Platt and the other contractors at the construction site needed temporary water for their construction operations, but from the start of construction to near completion no water source was available from any plumbing lines on site. (N.T. 144, 146-148).

101. At the beginning of work on the project, DGS directed H. Platt to truck water onto the site for its own use as well as the use of the other contractors until DGS could resolve the problem with the water source. Throughout the duration of the project, H. Platt sent men and trucks to a fire hydrant several times a day to procure water for its own purposes and for other contractors. (N.T. 148-149, 151-152, 505).

102. H. Platt kept track of its costs and told DGS at various times what they were. (N.T. 152; P-52).

103. Under Specification 2.1B of the contract, H. Platt was to pay the costs of the water itself and other utilities. H. Platt paid those costs. The specifications did not require H. Platt to bring the water to the site. (N.T. 151; Exs. P-51, P-73; Board Finding).

104. H. Platt made a claim to DGS for \$64,140.26 for the labor and the trucking costs it incurred for bringing the water onto the site. (N.T. 154; Ex. P-52).

105. DGS rejected H. Platt's claim for \$64,140.26, relying on the recommendation of Mr. Walker, the Professional for the Behrend project. (N.T. 154; Ex. P-49).

106. Mr. Walker, as representative of the Professional, originally recommended that H. Platt's request for change order be rejected because of his interpretation that, under the contract, the "General Contractor is to pay for all water consumed by temporary construction." However, at trial, Mr. Walker changed his view and acknowledged that the plumbing contractor, not the general contractor, was responsible for getting the temporary water to the site under the contract's provisions. (N.T. 508).

107. At trial, Mr. Barkey, the DGS regional director, also acknowledged that it was the responsibility of the plumbing contractor to get the temporary water supply to the site. (N.T. 594-596).

108. DGS did not dispute the claim for trucking temporary water on the grounds that this work was unnecessary or because the costs claimed were inaccurate or unreasonable. DGS simply claimed that it was H. Platt's obligation as the general contractor to provide temporary water under the terms of the contract. (N.T. 265, 506-507).

109. The Board finds that DGS directed H. Platt to truck temporary water onto the site during the duration of the construction period and that this was extra work outside the scope of H. Platt's contract. (F.O.F. ¶ 97-108; Board Finding).

110. DGS does not dispute, and the Board finds, that the cost of \$64,140.26 was incurred by H. Platt for bringing water onto the site and that this cost is reasonable for the work performed. (N.T. 152, 640; Ex. P-52; F.O.F. ¶ 104-109; Board Finding).

D. Balanced Site Issue

111. Prior to attending the controlled site visit on April 22, 1999, H. Platt estimated the quantities of the total site cut and total site fill that would be required for the project from the project plans and drawings. Since earthwork operations were a major part of the project, H. Platt made that estimate before submitting its bid in order to determine whether it would be necessary to include costs of bringing in new material to the site or hauling material away from the site in order to achieve the grades specified. (N.T. 33-37, 155-157; Ex. P-1).

112. The minutes of the controlled site meeting held on April 22, 1999 show that the Professional told H. Platt at that meeting that the project site was designed to be balanced (i.e. materials removed during excavation could be re-used as fill at other areas of the site without the need to haul away or import any other soil). (N.T. 368, 487; Ex. P-1).

113. Mr. Walker, the project manager for the Professional, testified that the bid documents given to H. Platt showed the site would balance. (N.T. 515).

114. In May 1999, before submitting a bid for the project, H. Platt and its subcontractor made computations based on the contract documents and site drawings in order to confirm whether the site balanced and whether soil would be needed to be added or subtracted in order to build the project in compliance with the site plans and contract specifications. (N.T. 167-170, 372; Ex. P-56).

115. To make the pre-bid estimates, Mr. Smith reviewed the contract drawings and computed that H. Platt would have to bring 5,000 cu. yds. of additional soil on to the site to exactly create the contours on the drawings. H. Platt reviewed the contours on the plans and drawings and confirmed the representation by the Professional that the site would roughly balance. (N.T. 156-157, 167-172; Ex. P-56).

116. The minutes of the initial job conference held on September 13, 1999 state that with respect to excavation H. Platt was told, "This contract is unclassified, per page 02200-2, 1.4." (N.T. 380; Ex. P-5, p. 4).

117. Section 02200-Earthwork, Part 1.4A of the Contract Specifications states in part, "Excavation for this project shall be considered unclassified and shall include all types of earth and soil, any pebbles, boulders, and bedrock, municipal trash, rubbish and garbage and all types of debris of the construction industry...All such materials encountered which are identified by this paragraph as unclassified shall be removed to the required widths and depths to create a finished product as shown and/or noted on the drawings as written in the specifications. No additional compensation shall be made to the contractor for this unclassified excavation." (Ex. D- 1).

118. Section 02200-Earthwork, Part 3.18A of the Contract Specifications provides, "Except for suitable topsoil, excess earth and other debris must be removed from the site, using procedures resulting in full compliance with all applicable regulations. The Contractor shall

obtain approval of the dump site from the Professional and the Department, which approval will not relieve the Contractor of his responsibility herein.” (Ex. D-1).

119. At the end of construction, after H. Platt finished 99% of the grading of the site, built the retention ponds, and installed the parking lots and sidewalks, H. Platt still had several very large piles of dirt left. These piles were placed in the parking lot. (N.T. 158).

120. H. Platt had these piles of excess soil surveyed, and the surveyor found they contained 18,470 cu. yds. of dirt. These dirt piles were not classified as unsuitable. (N.T. 158, 412-413, 415).

121. While DGS argued to the Board that soil excavated from the retaining wall, pool pit or gymnasium footers was co-mingled with, or included in, the parking lot dirt piles, DGS presented no evidence to support these contentions. H. Platt’s testimony at the hearing established that the 18,470 cu. yds. of excess dirt resulted from finishing the contouring and grading of the site as specified, and that this soil was kept in segregated piles in the parking lot, not co-mingled with any earlier piles. (N.T. 161, 410-413, 646; Board Finding).

122. The Board finds that the site did not balance as represented to H. Platt by the project Professional and the contract plans and drawings. (F.O.F. ¶ 111-121; Board Finding).

123. H. Platt notified DGS about the large piles of dirt remaining after the site grading was finished, and DGS instructed H. Platt to haul the dirt off the site. (N.T. 158, 322-323).

124. H. Platt was required by DGS to load up the excess material and haul it off site, then grade it and seed it in accordance with the requirements of the Conservation District of the Department of Environmental Protection. (N.T. 160).

125. H. Platt incurred costs of \$152,899.11 for removal and disposal of the 18,470 cu. yds. of excess dirt from the project site. (Ex. P-53).

126. DGS did not dispute, in any meaningful way, that H. Platt performed the work of hauling the dirt off the site; that H. Platt incurred the costs claimed for removal and disposal of this excess dirt; or that these costs were reasonable. (N.T. 163, 265-266, 510; Board Finding).

127. No final survey or inspection was done by the Professional at the end of the Project to determine if the final grades and elevations were correct. (N.T. 513).

128. Final inspection and acceptance of the project occurred in early fall of 2000. DGS offered no evidence at trial that the building was not built or the site was not graded in accordance with the contract plans and specifications DGS provided to H. Platt. (N.T. 610, 652; Board Finding).

129. Testimony was offered at trial as to possible explanations for the imbalance, including suggestions that the Professional relocated the building numerous times on the site,

that the test borings were inaccurate, or that the original contour lines on the drawings were inaccurate. (N.T. 159, 166, 369, 415-416, 489-490, 514-516; Board Finding).

130. The Board finds that there was no credible evidence presented that it was H. Platt's fault that the site did not balance. (Board Finding).

131. Based on the evidence as a whole, and because H. Platt's bid was based on the contract documents (including the plans, specifications and drawings) which showed the site to be roughly balanced as to cut and fill excavation, as well as representations from the project Professional that the site was designed to balance at the controlled site visit before the bid and thereafter; and because H. Platt followed the contract documents in constructing and grading the site; and because, when it completed the work, the site did not balance, the Board finds that H. Platt was given inaccurate information upon which it reasonably relied to prepare its bid. (Ex. P-1, N.T. 166, 320-323, 369, 378, 416-417, 151; Board Finding).

132. H. Platt submitted a request for change order in the amount of \$152,899.11 for removal of the 18,470 cu. yds. of extra soil that DGS required H. Platt to dispose of off site. (N.T. 159-160, 265; Ex. P-53).

133. On July 7, 2000, the Professional recommended to DGS that the change order request be denied based upon Specifications Section 02200 1.4A and Section 02200 3.18A. (Exs. P-54, P-73).

134. On August 5, 2000, DGS denied H. Platt's change order request, stating that the reasons for denial were those cited by the Professional and adding that, "the excess unsuitable soil was caused in part due to Contractor's choice of means and methods to circumvent Contractor's own steel delivery delay which has been previously denied." (Ex. P-54).

135. DGS presented no evidence at the hearing to show that the piles of 18,460 cu. yds. in the parking lot were "unsuitable," or that they came from the over-excavation behind the retaining wall (resulting from the steel delivery delay), from the pool pit excavation or from any failure of H. Platt to follow the plans, specifications and drawings provided by DGS. (N.T. 161, 322-323, 410-413, 487, 516, 630-631, 653; Board Finding).

136. Because H. Platt was specifically told before bidding that the site would balance and given plans that showed the site would balance; and because H. Platt constructed and graded the project in accordance with the project's plans and specifications and then had to haul away, at DGS' direction, an extra 18,470 cu. yds. of soil, the Board finds that the soil disposal was extra work outside the scope of the contract and that H. Platt incurred costs of \$152,899.11 for this extra work. (F.O.F. ¶ 111-135; Board Finding).

E. Rock Excavation Issue

137. As part of the site work on the project, H. Platt had to dig down four feet to install each of the footers for the building so that each would be installed below the frost level. (N.T. 35, 177, 185).

138. Prior to putting the contract out for bid, DGS retained a consultant who dug ten to fifteen test borings in the area around where the building was to be built and developed geological information concerning where the rock bed was located. This information was in the form of a profile of the terrain and was a part of the subsoil report which was included in the project's geotechnical report. (N.T. 179, 518).

139. The subsoil report was not part of the drawing package included in the contract documents, and the subsoil profile did not appear on any contract drawings. (N.T. 517-518).

140. The geotechnical report, core borings and plans and contract documents indicated that bedrock was present in the general area of the footings at various elevations. (N.T. 176-179).

141. DGS made the geotechnical report and test borings available to H. Platt before the bid, but DGS specified in the contract that it did not guarantee the accuracy or completeness of the test boring results. All bidders were instructed to make their own investigation of existing subsurface conditions. (N.T. 377-380, 389-390, 517; Exs. D-1, P-73, Sec. 01030, para. 1.7).

142. At the April 1999 controlled site visit, Mr. Smith of H. Platt inquired whether the geotechnical report for the site was available. DGS made the report available to Mr. Smith, and Mr. Smith reviewed it along with the Project's plans and specifications prior to bidding. (N.T. 35-36, 177; Ex. P-1).

143. H. Platt made no independent investigation of subsurface conditions. (N.T. 318).

144. When Mr. Smith prepared H. Platt's bid for the project, he concluded that H. Platt would have to excavate some small quantities of rock for the footers because he believed that most of the bedrock appeared to be situated below the excavation level. (N.T. 36, 176-177; Ex. P-57).

145. While digging the trenches for the footers, H. Platt found that the elevations of rock were generally as predicted by the test borings, but in one particular area the rock was two to three feet closer to the surface than H. Platt expected. H. Platt had to use a large John Deere excavator to remove the shale rock at this single location for the footer. (N.T. 176-178, 377; Exs. P-57, P-58, P-60).

146. H. Platt performed the footer excavation for all the footers. It then submitted a change order request for \$34,000 for the rock excavation work at the single location. This request was denied by DGS based upon the language of the contract. (N.T. 181, 264; Exs. P-58, P-60, P-61).

147. Under the terms of the contract in Section 02200, Paragraph 1.4 A, excavation on the site was unclassified. The unclassified materials were defined as including “. . . all types of earth and soil, any pebbles, boulders and bedrock” All such unclassified materials “identified in this paragraph as unclassified shall be removed to the required widths and depths to create the finished product as shown and/or noted on the drawings and as written in the

specifications. No additional compensation shall be made to the contractor for this unclassified excavation. The materials defined by this paragraph as unclassified will not be considered to be concealed conditions or unknown physical conditions below the surface of the ground for purposes of Paragraph 63.131(H) of the General Conditions to the Construction Contract.” (N.T. 628; Exs. P-1, P-73, D-1, Section 02200 1.4 A).

148. Mr. Smith’s own testimony describing H. Platt’s claim for extra rock excavation establishes, *inter alia*, that: (1) H. Platt knew, coming into this project, that a site such as this on a hillside would have buried rock; (2) H. Platt also knew that such areas as this could have unforeseen bumps or ridges in the geological rock formation below the surface; and (3) the rock elevations provided by the geotechnical report ran generally true to form. (N.T. 176-177).

149. Mr. Smith’s testimony establishes that rock was encountered 2-3 feet higher than he expected from his review of the geotechnical report and test borings provided him by DGS at some location in the gymnasium footer trenches “between column line 15 and 17.” However, the Board is unable to ascertain from this testimony or the evidence presented if this alleged “higher rock” ran along the east or west walls of the gymnasium between column lines 15 and 17, or along the entire south wall of the gymnasium parallel to column lines 15 and 17, or both, neither, or some large or small portion thereof. (N.T. 176-178; Exs. P-57 through P-61; Board Finding).

150. The record does not reflect the amount of extra rock excavation that was required because neither the volume of rock removed nor the length of the rock in footer trench is in the record. (Board Finding).

151. The geotechnical report, the test borings report and the subsoil report with profile were not introduced or admitted into evidence in this case. (Board Finding).

152. H. Platt has failed to establish that the bedrock it encountered at a two-three foot higher elevation than it expected at one trenching location of undefined size was a material difference from that to be expected at the site pursuant to the geotechnical report, core borings, plans, drawings, or other information provided to it pre-contract. (Exs. P-73, P-77; F.O.F. ¶ 137-149; Board Finding).

153. H. Platt has also failed to establish that the excavation of this two to three feet of rock of undefined volume in one trench area was extra work outside the scope of the contract. (N.T. 571-572, 628; Exs. P-72, P-73; F.O.F. ¶ 137-140; Board Finding).

154. While Mr. Smith testified that, when H. Platt discovered the extra rock in the footer trench, Mr. Robert Wagner, the DGS site inspector, told him to “put in for a change order,” the Board finds that this testimony is insufficient to find that DGS or Mr. Wagner promised H. Platt that it would be paid for the extra rock excavation. (N.T. 180-181; Board Finding).

F. Gym Floor Issues

155. H. Platt installed the wood floor in the gymnasium from October 9, 2000 to December 4, 2000. (Ex. D-10).

156. H. Platt constructed the gymnasium floor and installed the maple wood flooring as indicated in the project plans and specifications. Among other things, this involved pouring a four inch concrete slab, putting down a six mil vapor barrier, then placing wood sleepers (1 inch thick plywood cut into 2 inch wide strips) on top. Just under each sleeper was a rubber pad. A 1/2 inch layer of plywood was placed on top of the sleepers and then the maple wood flooring was nailed at the tongue through the plywood. (N.T. 227-228; Exs. P-7, P-64, P-73, P-77).

157. Beginning in late 2000, Penn State Behrend began using the gymnasium. It cleaned and maintained the maple floor by using two heavy scrubbing machines which applied water and water-based cleaning solution to the floor. It also had moveable bleachers in the gymnasium that were rolled over the floor on wheels to provide extra seating for certain events. (N.T. 203-206; Exs. P-63, D-10).

158. As part of its value engineering, Penn State Behrend decided not to provide any air conditioning system in the gymnasium. Without any air conditioning, the temperature and humidity levels varied widely in the gymnasium. (N.T. 210, 213, 569-570, 742, 754-756, 758).

159. The specifications for the maple wood flooring installed in the gymnasium indicated that, in order to properly maintain the flooring, it was important to minimize extremes between high and low humidity. The hardwood flooring was manufactured at a moisture content most compatible with the 35-50% humidity range, and facility managers were advised to make use of HVAC systems to prevent excessive tightening and shrinking. The Maple Flooring Manufacturers' Association also specified that there should be air conditioning to prevent damage to the floor from humidity. (N.T. 754, 756).

160. The floor manufacturer's specifications also warned the buyer not to use water to clean the floor because it would damage the wood. (N.T. 739).

161. The floor manufacturer's specifications set forth maximum wheel loads for equipment that would be rolled over the floor and stated that loads exceeding these levels could crack and split the floor boards. (N.T. 19-20, 201-205).

162. The wheel loads for the scrubbing machines that Penn State used to clean the floor and the wheel loads for the wheels under the moveable bleachers significantly exceeded the loads recommended by the floor manufacturer. (N.T. 739, 759-760; Ex. D-10).

163. The sub-floor installed under the gymnasium's track was plywood. The Professional did not specify that the plywood should be wolmanized. The lack of wolmanized (e.g. pressure-treated) plywood to underlay the maple flooring made it and the track floor more susceptible to cracking from any moisture present. (N.T. 756-757; Ex. D-10; Board Finding).

164. Penn State violated the manufacturer's specifications by using water to clean the floor and by rolling heavy machines and bleachers over the flooring. These acts caused damage to the flooring. (N.T. 201-205; Ex. D-10; Board Finding).

165. H. Platt was not involved in Penn State's decision to roll the heavy cleaning machines over the floor, to use water on the floor, to fail to use pressure treated plywood in the track's sub-floor, or to save money by not installing air conditioning in the gym area. (N.T. 212; Board Finding).

166. In 2003, DGS notified H. Platt that significant cracking had occurred in the wood floor. The maple floorboards were splitting along the tongue and groove joints and on the ends of the boards. (N.T. 195, 201-202, 544; Ex. D-14).

167. DGS requested that H. Platt come back and make some repairs. At this time the warranty period for the floor had expired. (N.T. 200, 241).

168. In May 2003, H. Platt agreed to return to repair and replace the particular boards that were splitting, and DGS approved Change Order #24 for H. Platt's repair work in the amount of \$32,345.70. (N.T. 195-196, 206; Ex. P-65).

169. H. Platt had the repair work performed by its subcontractor, Tom Brown Contracting, and H. Platt paid that subcontractor in full for the work. (N.T. 208).

170. After the work was completed, DGS refused to pay H. Platt all or any part of the Change Order #24 on the premise that the gym floor problem was somehow attributable to H. Platt. However, nobody from DGS told H. Platt that it might withhold any of the amount agreed upon in the Change Order #24 until after H. Platt performed the floor repair work. (N.T. 216, 239-241; Ex. P-66).

171. On July 31, 2003, DGS told H. Platt that its original work related to the backfill in the areaway between the retaining wall and the southern gymnasium wall was non-conforming work because it did not comply with Contract Specification, Section 02711, Paragraph 2.4B defining the composition of drainage fill (i.e. No. 57 gravel) and Contract Drawing A20 detail for said areaway. (N.T. 709; Ex. D-14).

172. A meeting was held at the site in September 2003 and attended by representatives of DGS, Penn State and H. Platt. James Hunt, a consultant hired by Penn State, was also present. The parties discussed the possible causes of the floor damage, and DGS sought to blame H. Platt. (N.T. 233).

173. At the meeting, Mr. Barkey of DGS and Mr. Hunt theorized that high humidity levels in the gymnasium were one cause of the cracking and swelling of the floor; that the backfill that H. Platt had allegedly installed improperly in the areaway between the retaining wall and the gym wall was not allowing ground water to properly drain; that the humidity in the gym came from this problem with the areaway; and that this was the cause of floor damage. H. Platt

disagreed with this analysis and with the contention that any additional drainage work in the areaway was necessary. (N.T. 237-241; Ex. P-66).

174. At the September 2003 meeting, the parties agreed that Mr. Hunt would monitor environmental conditions in the gymnasium from October 6, 2003 to July 4, 2004, covering all seasons. They agreed the testing procedure would utilize four sensors at different locations to measure and compare the temperature and humidity levels in the gymnasium both before and after H. Platt replaced the fill material in the areaway. (N.T. 545, 742-747; Exs. P-66, D-10).

175. Since DGS was refusing to pay H. Platt fully for the floor repairs it had already completed pursuant to Change Order #24, H. Platt felt it had no practical choice but to agree to having Mr. Hunt proceed with humidity and temperature testing procedures. For the same reason, H. Platt removed the fill in the areaway it had previously installed and replaced it with alternate fill, No. 57 gravel, from top to bottom, pursuant to DGS direction. (N.T. 241-244; Ex. D-19).

176. Mr. Smith testified that when H. Platt originally constructed the areaway between the retaining wall and the gymnasium, it installed a drainpipe and connected surface drains to same, placed a vapor barrier on the outside face of the gym wall, and backfilled the areaway with the three different materials required by the plans and specifications, including filtering material, the No. 57 gravel drainage material and a top layer of impervious material. H. Platt contends that this construction met the contract specification. (N.T. 234-239).

177. Contract Specification Section 02711 – FOUNDATION DRAINAGE SYSTEMS – states, in relevant part, as follows:

2.4 SOIL MATERIALS

- A. Impervious Fill: Clay, gravel and sand mixture capable of compacting to dense state.
- B. Drainage Fill: Washed, evenly graded mixture of crushed stone, or crushed or uncrushed gravel, ASTM D 448, coarse aggregate, Size No. 57, with 100 percent passing 1-1/2 inch (37.5-mm) sieve and not more than 5 percent passing No. 8 (2.36-mm) sieve.
- C. Filtering Material: Evenly graded mixture of natural or crushed gravel or crushed stone and natural sand, with 100 percent passing 1-1/2-inch (37.5-mm) sieve and 0 to 5 percent passing No. 50 (0.3-mm) sieve.
- D. Matting: Geotextile filter fabric, in 1 or more layers, for minimum total weight of 6 oz./sq. yd. (0.20 kg/sq.m).

...

3.5 SOIL MATERIAL INSTALLATION

- A. Impervious Fill at Footings: Place impervious fill material on subgrade adjacent to bottom of footing after concrete footings have been cured and forms removed. Place and compact impervious fill to dimensions indicated but not less than 6 inches (150 mm) deep and 12 inches (300 mm) wide.
- B. Filtering Material: Place supporting layer of filtering material over compacted subgrade where drainage pipe is to be laid to depth indicated or, if not indicated, to compacted depth of not less than 4 inches (100 mm).
- C. Drainage Fill: Place fill over drain piping after satisfactory testing and covering with filtering material. Cover piping to width of at least 6 inches (150 mm) on each side and above top of pipe to within 12 inches (300 mm) of finish grade. Place fill material in layers not exceeding 3 inches (75 mm) in loose depth, and compact each layer placed.
 - 1. Place synthetic drainage fabric as detailed.
- D. Fill to Grade: Place impervious fill material over compacted drainage fill. Place material in loose-depth layers not exceeding 6 inches (150 mm). Thoroughly compact each layer. Fill to finish elevations and slope away from building.
[Emphasis Added]

(Ex. P-73; Board Finding).

178. The project plan drawings, particularly the 2/A20 detail for the wall section at the south side of the gymnasium on Contract Drawing A20 and the 14L-11 inline drain detail on Contract Drawing L-11, indicate that the areaway is to be filled from top to bottom with a gravel material (without an impervious top layer). These contract drawings were in conflict with the contract specifications. (Exs. P-73, P-76, P-77; Board Finding).

179. The contract, at General Conditions, Section 63.2, Paragraph C states, in relevant part, that, “If there is a conflict between the drawings and the specifications, the specifications shall prevail.” (Ex. P-73; Board Finding).

180. Mr. Hunt attempted to persuade the Board that there was no No. 57 gravel used by H. Platt to backfill the areaway via testimony and a sampling of photos taken of the areaway during some test hole excavation. The holes were not deep enough, showing primarily the top layer of impervious material, and did not establish that H. Platt failed to install the No. 57 gravel in the areaway around and above the drainage pipe (but below the impervious layer) as called for

by Contract Specification Section 02711 Paragraph 2.4 and 3.5. (N.T. 235-238, 709-710, 764-767, 771-773; Exs. D-10 C& D, P-73; Board Finding).

181. The Board finds Mr. Smith's testimony credible with regard to the original backfill of the areaway and that H. Platt properly followed the contract specifications rather than the contract drawings when it originally installed the No. 57 gravel around and above the drain pipe but then topped it with impervious fill in the areaway. (N.T. 234-239, 764-769; Exs. P-73, P-76, P-77, D-10; F.O.F. ¶ 176-179; Board Finding).

182. When H. Platt excavated the backfill from the areaway, as ordered by DGS, DGS determined that no grout had been installed in the sub-grade gap or joint between the bottom of the pre-cast wall and the top of the building's foundation. DGS contended that this grouting was required by Contract Specification Section 03450-12, Paragraph 3.2E. H. Platt had not applied grout to this joint originally and disagreed that it was required to do so, but did the grouting work when it replaced the areaway fill at DGS' direction. (N.T. 302-311; Ex. D-10).

183. H. Platt completed the removal and replacement of the areaway backfill material and the grouting as directed by DGS in December 2003. (N.T. 242-246, 303-311; Ex. P-66).

184. Contract Specification Section 03450, Paragraph 3.2F states, in relevant part, that the contractor is to grout connections where required or indicated. Contract Drawings for this project, particularly Detail 2/A20 on Contract Drawing A20 and detail for "Typical Precast Conc. Wall Panel Connection to Masonry Fdn. Wall or Grade Beam Detail" on Contract Drawing No. S-11, consistently required grouting between such connections as are here at issue. These drawings are not in conflict with the specifications. (Ex. P-73, P-77; Board Finding).

185. DGS is correct that the specifications and drawings required grout in the joint between the precast wall and the gymnasium foundation along the south wall adjacent to the areaway. (Ex. P-73, P-77; Board Finding).

186. Mr. Hunt set up the testing protocol for the gymnasium environmental conditions after the parties' discussions in September 2003. However, he only reported results from three sensors. He did not use any data from Sensor #2 which was one of the monitors placed in the plenum area under the gymnasium floor. His test data was not collected using the testing protocol that the parties originally agreed to. (N.T. 714, 744-751, 776, 782, 795-796; Exs. D-10, D-19; Board Finding).

187. Mr. Hunt did have three sensors from which he claims to have acquired reliable data. These are Sensor #1 in the plenum area between the maple wood flooring and the concrete slab underneath the gym floor (near the areaway); Sensor #3 above the top row of bleachers inside the gym near the areaway; and Sensor #4 outside the gymnasium. The fourth sensor (Sensor #2) which he found to be unreliable was in the plenum area between the wood flooring and the concrete slab underneath the gym floor (away from the areaway). Hunt found Sensor #2 to be unreliable, not because of the sensor itself, but because he concluded that where it was placed (the plenum area away from the areaway) was replicating outside air (i.e. was somehow getting cold drafts or such from outside). This numbering system and the elimination of one

meter did not coincide with Hunt's original plan proposed to the parties. (N.T. 743-751; Exs. D-10, D-19; Board Finding).

188. In Mr. Hunt's report, he indicated that the gym's maple flooring system is sensitive to temperature and humidity and that the floor requires close attention to existing and future environmental conditions and user activities. (N.T. 792; Ex. D-10).

189. The manufacturer's floor specifications and industry standards recommend humidity levels below 50% and that humidity fluctuations of less than 15% be maintained by use of HVAC systems in order to minimize floor shrinkage and damage. (Ex. D-10).

190. Mr. Hunt measured humidity levels in the gym before and after H. Platt performed the areaway work. Hunt's test results showed some days in October and November 2003 when the humidity level was over 50% and some days when the humidity fluctuations were greater than 15%. The tests conducted after the areaway work was completed showed that in late March, April and May 2004 there were also days when the humidity fluctuations were greater than 15%. (Ex. D-10).

191. Mr. Hunt's testing showed that, in the winter months after the replacement of areaway fill and regrouting, there was a decline in the humidity levels in the plenum area under the gym floor, but also in the entire gym itself. He also acknowledged that when the heat was turned on in the building between November and March, that this could have caused the relative humidity in the building to fall. (N.T. 730-733, 785).

192. Beginning in April 2004, Mr. Hunt found that the humidity in the interior of the gym space began to rise again along with a significant rise in the exterior humidity. Mr. Hunt acknowledged that these rising humidity levels in April and May meant there were still going to be problems with expansion and contraction of the maple floor regardless of the replacement of the backfill in the areaway. (N.T. 734, 790, 805; Board Finding).

193. Mr. Hunt basically identified five factors which, in his opinion, contributed to the cracking and buckling of the gymnasium flooring, which can be summarized as follows:

1. H. Platt's failure to construct the areaway and provide drainage backfill therein in a proper manner as per contract specification, thereby preventing proper areaway drainage and increasing humidity levels under the gym flooring;
2. H. Platt's failure to grout the joint between precast wall and gym foundation along the areaway as per contract specification, thereby preventing proper areaway drainage and increasing humidity levels under the gym flooring;
3. Failure of the plans and specifications to specify pressure-treated exterior grade plywood for the gym sub-floor thereby making this base beneath the maple flooring and running track more susceptible to swelling from migrating moisture;

4. Penn State's use of floor maintenance equipment exceeding wheel load limitations which introduced water and water based cleaning solution to the floor contrary to flooring manufacturer's recommendations (as well as excessive load from rolling bleachers; and
5. Failure to install HVAC (air conditioning) system to maintain humidity levels in gymnasium within floor manufacturer's recommended range.

(Ex. D-10).

194. Mr. Hunt stated that the lack of an air conditioning system in the gym complicated the ability to maintain a stable temperature and humidity level in accordance with the manufacturer's and flooring industry standards. (N.T. 760; Ex. D-10).

195. Mr. Hunt identified the lack of air conditioning as "a significant factor" in the cracking of the floor. (N.T. 756).

196. Based upon the testimony of Mr. Hunt, other witnesses and the evidence produced, the Board finds that the major or primary causes of damage to the gym floor were the lack of air conditioning in the gymnasium (which allowed fluctuations in humidity in excess of the floor manufacturer's recommendations) and the use of water and over-weight cleaning equipment on the flooring, also contrary to the manufacturer's explicit recommendations. These factors had at least twice the impact on the flooring as any of the contributing factors identified below. (N.T. 742, 754-756, 760, 796-798; Ex. D-10; Board Finding).

197. The Board agrees with Mr. Hunt's assessment that the failure to specify pressure-treated exterior grade plywood for the gym sub-floor made the floor more susceptible to humidity or moisture fluctuation. However, we find this to be a contributing factor (as opposed to a primary cause) of the cracking and buckling of the gymnasium floor. (N.T. 742, 754-756, 760, 796-798; Ex. D-10; Board Finding).

198. H. Platt was not at fault for Penn State's decision not to install air conditioning, Penn State's use of water and improper cleaning equipment on the floor, or the failure of the plans and specifications to require pressure-treated plywood in constructing the gymnasium sub-floor. (N.T. 754; Board Finding).

199. Mr. Hunt maintained that his test results showed that the replacement of the areaway fill and grouting of the joints between the precast wall and gym floor foundation reduced humidity in the plenum area beneath the wood flooring. Although the Board finds Mr. Hunt's data to be less than compelling due, *inter alia*, to the somewhat inconsistent variations and relationships in humidity levels among all three areas monitored, additional variables unaccounted for (e.g. heating of the building, the "drafts" in the plenum at the other end of the gym, the elimination of water cleaning with the scrubbers used beforehand, etc.), the Board does

agree with Mr. Hunt that the data support his conclusion that moisture in the plenum area near the areaway was generally reduced following the replacement of the areaway fill and grouting of the joints. (Ex. D-10; F.O.F. ¶ 176-197; Board Finding).

200. The Board finds, however, that the evidence presented establishes that H. Platt backfilled the areaway between the southern gymnasium wall and the retaining wall as required by contract and specification. Moreover, we find that the original backfill of the areaway did not contribute in any material way to the sub-floor moisture or flooring problem. We also find that replacement of the original backfill with the gravel in the areaway made no material difference in the environmental conditions of the gymnasium. We reach this conclusion primarily because the combination of the impervious layer on top of the areaway fill; the inline drainage system installed in the areaway; and the fact that the areaway was covered overhead with a walkway that was sealed to the gymnasium wall, together, served to prevent any surge of water run off or seepage of sufficient quantity or suddenness so that the inline drainage system, as installed, was fully adequate to drain off any ground water or seepage entering the areaway, thus making H. Platt's application of an impervious surface to the top of the areaway (as opposed to complete granular fill) of no material instance. (N.T. 235-238, 248-249, 716-720, 734, 756, 760, 765-769, 790, 805; Exs. P-76, P-77, D-10; F.O.F. ¶ 155-199; Board Finding).

201. The Board also finds, however, that H. Platt's failure to apply grout to the precast concrete wall/foundation joint along the south gymnasium wall, while not a primary cause of the excess humidity or humidity variations in the gymnasium nor a primary cause of the cracking and buckling problems with the gymnasium floor, was a contributing cause of the humidity or humidity variations in the plenum area beneath the gymnasium floor and a contributing cause of the cracking and buckling problems with the gymnasium floor. We reach this conclusion for several reasons, including the following: (A) Mr. Hunt's data provide support for his conclusion that there was a source of moisture independent from the ambient air in the gym affecting the plenum below the maple wood flooring; (B) the pictures provided by Mr. Hunt of the areaway test holes and his testimony confirms that there was insufficient placement of an adequate vapor barrier on the outside of the gym wall below the areaway fill to prevent ground moisture from entering below the slab through the ungrouted wall joints; and (C) the vapor barrier that H. Platt installed between the concrete slab and the gym sub-floor would have prevented most, but not all, moisture from the ungrouted joint from seeping under or damaging the wood floor from below. Accordingly, the Board finds that the absence of grout was not a primary cause of the problems experienced with the wood flooring, but was a contributing cause of the damage to the maple wood floor. (N.T. 235-238, 716-720, 765-769; Exs. D-10, P-76, P-77; Board Finding).

202. Based on the totality of evidence presented, including Mr. Hunt's attribution of flooring damage to five causes (four of which the Board finds viable); our finding that the failure to install an HVAC system in the gymnasium and the improper floor cleaning methods were the primary and most significant causes of such problems; and our findings that the absence of pressure-treated exterior plywood for the sub-floor and failure to grout the wall/foundation joints were contributing causes of the wood flooring problems; the Board finds that H. Platt's failure to grout the wall/foundation joints contributed 15% of the damage to the gym flooring. (F.O.F. ¶ 155-201; Board Finding).

203. Prior to the September 2003 meeting, DGS refused to pay H. Platt any money pursuant to the previously approved Change Order #24. After the meeting, DGS paid H. Platt half of the amount due under Change Order #24 or \$16,172.85. (N.T. 208, 216, 239-242; Ex. P-66).

204. At the September 2003 meeting, DGS and H. Platt discussed a potential workout of their dispute regarding the gym floor. DGS demanded and H. Platt agreed to remove and replace the backfill within the areaway with another type of gravel on condition that H. Platt would be paid one-half of Change Order #24 immediately and would be reimbursed for the gravel replacement in the areaway and paid the second half of Change Order #24 under certain conditions related to environmental testing in the gymnasium. (N.T. 216, 232-233, 242-244; Ex. P-66).

205. The evidence presented shows that DGS and H. Platt discussed an arrangement whereby H. Platt would not be paid the remainder of Change Order #24 or the cost of replacing the areaway fill if the testing done by Mr. Hunt showed that moisture coming from the areaway was causing the damage to the floor, but if the testing did not show that moisture coming from the areaway was causing the damage to the floor, then H. Platt would be paid in full for Change Order #24 and for the cost of replacement of the areaway fill. (N.T. 243-244; Ex. P-66; Board Finding).

206. Mr. Smith of H. Platt, at one time, stated in a letter that H. Platt should be paid if the replacement of the gravel made no material difference regarding the environmental conditions of the gymnasium. (N.T. 242-244; Ex. P-66).

207. Mr. Barkey of DGS testified to his understanding that if the testing showed that the humidity levels dropped significantly, "it would prove that the areaway drainage was incorrect also, and that's primarily the cause why the floor failed." (N.T. 545).

208. H. Platt and DGS never finalized or executed a written agreement regarding this work-out arrangement. In their attempt at oral agreement, DGS and H. Platt apparently did not reach a clear understanding regarding what standard should be used to determine causation of the floor damage. For example, it remains unclear whether the damage had to be caused by the improper choice of areaway backfill or just by moisture from the areaway. Did this moisture have to be a primary cause of damage to the gym floor; a material cause; or any degree of contributing cause at all for H. Platt to be responsible? Was Mr. Hunt's subjective opinion final or did his report have to establish the cause by an objective review standard? Since all parties understood at the time that there were likely multiple causes of floor damage and multiple causes of the humidity (including the lack of air conditioning), these standards were material terms of any potential agreement. In light of the lack of clarity on this point, we cannot find that an agreement was reached by the parties on this matter. (N.T. 241-246, 293-299, 545-546; Board Finding).

209. H. Platt agreed to the testing procedures originally proposed, but never agreed to be bound by Mr. Hunt's conclusions. (N.T. 241-245, 293-299, 545-546; Exs. P-66, D-12, D-19).

210. At the direction of DGS, H. Platt repaired the flooring pursuant to the terms of approved Change Order #24 (\$32,345.70), \$16,172.85 of which DGS has refused to pay. (N.T. 206, 239-243; Exs. P-65, P-66; Board Finding).

211. At the direction of DGS, H. Platt also excavated and replaced the fill material and installed grout in the areaway. In doing so it incurred costs for that work of \$44,728.88. (N.T. 243-248; Ex. P-66; Board Finding).

212. Of the \$60,901.73 total amount of work performed by H. Platt with regard to the gym floor which remains unpaid by DGS, the Board finds that 15% of this cost is attributable to H. Platt's failure to grout the precast concrete gym wall sections to the gym foundation (contrary to project specifications), but that the remaining cost (\$51,766.47) is attributable to actions or decisions of DGS, Penn State, the project Professional or other causes beyond H. Platt's control and constitute costs for extra work beyond the scope of H. Platt's contract. (F.O.F. ¶ 155-211; Board Finding).

213. The "costs" which the Board has found to be incurred by H. Platt for its various claims in this action include appropriate markups for overhead and profit. (Board Finding).

214. The evidence presented in this case does not establish the specific dates when H. Platt first made its administrative claims to the DGS contracting officer for amounts claimed to remove/replace old fill behind the retaining wall, to provide temporary water, or to remove excess soil from the site. The closest date to the filing of these claims with the DGS contracting officer that the Board can confirm from the evidence presented is December 18, 2000 (the date of the claim hearing). H. Platt submitted its administrative claim to the DGS contracting officer for extra unpaid floor repair/areaway fill replacement costs on September 8, 2004. (Exs. P-62, P-66; Board Finding).

215. Upon review of the evidence presented, the Board finds that the actions and positions taken by DGS on the various claims asserted herein by H. Platt both during construction and in defense of said claims had a reasonable basis in the language of the contract and/or recommendations from the project Professional. H. Platt has failed to establish that DGS acted in an arbitrary or capricious manner in connection with H. Platt's claims in this case. (Exs. P-73, P-77, D-10; F.O.F. ¶ 1-214; Board Finding).

CONCLUSIONS OF LAW

1. The Board of Claims has exclusive jurisdiction to hear and determine this matter as a claim against the Commonwealth of Pennsylvania, Department of General Services, arising from a contract entered into by the Commonwealth. 62 Pa.C.S.A. §§ 1701-1751).

2. The Board of Claims has jurisdiction over the parties as well as the subject matter of the claim asserted by plaintiff, H. Platt Company. Id.

3. A party may amend its claim at any time pursuant to Pa.R.C.P 1033 unless that amendment is contrary to a rule of law or where surprise or prejudice to the other party will result. H. Platt was permitted to amend its existing complaint to conform to the proof presented at trial because DGS was not surprised, prejudiced or delayed by the amendment. Burger v. Borough of Ingram, 697 A.2d 1037, 1041 (Pa. Cmwlth. 1997); Noll By Noll v. Harrisburg Area YMCA, 643 A.2d 81, 84 (Pa. 1994).

4. In asserting a claim for recovery for a breach of contract, it is the plaintiff's burden to show that the facts exist to support the requested recovery. Paliotta v. Department of Transportation, 750 A.2d 388 (Pa. Cmwlth. 1999).

5. Under the terms of the contract with DGS, H. Platt was obligated to construct a retaining wall as designed and using the materials identified in the contract plans and specifications. Ex. P-73.

6. As a general rule, a party to a contract assumes the risk of its own inability to perform. Luber v. Luber, 614 A.2d 771 (Pa. Super. 1992); Restatement (Second) of Contracts, sec. 261, comment e.

7. This assumption of risk as to one's ability to perform typically includes the risk as to the availability or unavailability of materials specified in the contract where, as here, the contractor agrees to provide these materials. See e.g., A.G. Cullen v. State System of Higher Education, 898 A.2d 1145, 1158-1159 (Pa. Cmwlth. 2006); Mat-Su/Blackhard/Stephen & Sons v. State of Alaska, 647 P.2d 1101, 1104-1105 (Supreme Ct. 1982).

8. H. Platt assumed the risk as to the availability or unavailability of the steel "T" beams called out in the plans and specifications to build the retaining wall here at issue as it agreed to provide same pursuant to its contract. Id.; Ex. P-73, General Conditions, § 63.36.

9. An exception to the rule in Luber, recognized in Pennsylvania case law, is the doctrine of impossibility/impracticability of performance. This doctrine provides that where, after a contract is made, a party's performance is made impracticable through no fault of its own, the parties may waive the difficulties or terminate the agreement, ending all contractual obligations. West v. Peoples First National Bank & Trust Co., 378 Pa. 275, 106 A.2d 427 (1954); Restatement (Second) of Contracts, sec. 261.

10. The doctrine of impossibility/impracticability of performance is designed primarily to allow a court, under certain circumstances, to discharge a contractor's duty to perform. Restatement (Second) of Contracts, sec. 261.

11. A party is expected to use reasonable efforts to surmount obstacles to performance, and a performance is impracticable only if it is so in spite of such efforts. F.J. Busse, Inc. v. Department of General Services, 408 A.2d 578, 581 (Cmwlth. Ct. 1979); Restatement (Second) of Contracts, sec. 261, comment d.

12. H. Platt has failed to establish that building the retaining wall as designed by and required per the contract documents was impossible or impracticable, as those terms are defined by Pennsylvania case law and/or the Restatement (Second) of Contracts, Section 261 for the following reasons: (A) the unavailability of the steel "I" beams for delivery to the project in the time frame initially planned by H. Platt was not a supervening event arising after consummation of H. Platt's contract with DGS; (B) construction of the retaining wall with the steel "I" beams specified in the contract documents was neither impossible nor impracticable as established by the fact that H. Platt built the retaining wall as designed and with the materials specified, albeit at a slightly later date; (C) the fact that the steel "I" beams were unavailable for delivery to the project site in the timeframe initially planned by H. Platt (which difficulty H. Platt resolved by constructing the retaining wall using a "bottom-up" method of construction instead of a "top-down" method of construction) did not cause H. Platt to incur extra expense or difficulty anywhere near the severe economic consequences required for application of the doctrine of impossibility/impracticability in order to excuse its performance. See e.g., West v. Peoples First National Bank & Trust Co., 378 Pa. 275, 106 A.2d 427 (1954); F.J. Busse, Inc. v. Department of General Services, 408 A.2d 578, 581 (Cmwlth. Ct. 1979); Dorn v. Stanhope Steel, Inc., 534 A.2d 798, 811-814 (Pa. Super. 1987); A.G. Cullen v. State System of Higher Education, 898 A.2d 1145, 1158-1159 (Pa. Cmwlth. 2006); Mat-Su/Blackhard/Stephen & Sons v. State of Alaska, 647 P.2d 1101, 1104-1105 (Alaska 1982); Restatement (Second) of Contracts, sec. 261 and comments.

13. DGS is not liable to H. Platt for costs incurred with regard to over-excavation of the slope behind the retaining wall or additional costs incurred as a result of the late steel "I" beam delivery to the project pursuant to the legal theory of impossibility/impracticability because the facts necessary to apply these principles have not been established in this case. Id.

14. Pursuant to the terms of its contract, H. Platt was solely responsible for construction means, techniques and procedures (i.e. "means and methods") for work under its contract. Ex. P-73, General Conditions, § 63-34.

15. Pursuant to its contract, H. Platt agreed to build the retaining wall for the Behrend project in conformance with the design and using the materials specified in the contract documents, including the specifications and plan drawings. Ex. P-73.

16. H. Platt built the retaining wall for the project as it was designed, using the materials called for in the original contract documents, plans and specifications. The fact that it did so utilizing a "bottom-up" method (whereby it over-excavated the slope behind the retaining

wall in order to facilitate timely commencement of the construction of the gymnasium foundation) instead of using the “top-down” method to construct the retaining wall as it initially contemplated was a means and methods decision. Accordingly, H. Platt’s over-excavation of the slope behind the retaining wall and its subsequent activity of backfilling this over-excavation do not constitute extra work outside the scope of its original contract. Id.

17. DGS is not liable to H. Platt for the costs incurred by H. Platt to over-excavate the slope behind the retaining wall or for its operational costs to backfill this over-excavated area behind the retaining wall since it does not constitute extra work beyond the scope of its original contract. Cf. Commonwealth, Department of Transportation v. Paoli Construction Company, 386 A.2d 173 (Pa. Cmwlth. 1978); Exs. P-73, P-77.

18. DGS’ subsequent directive to H. Platt to remove all of the old existing soil that was excavated from behind the retaining wall and to replace it with new off site materials did constitute extra work beyond the scope of the original contract. We find so because the existing material was of a soil type that was identified as suitable backfill material in the original contract, and the additional compaction concerns identified by DGS and the project Professional could have been readily addressed without modifying the soil suitability requirements identified in the original contract. Because the removal of the existing soil excavated from behind the retaining wall and replacement with new imported backfill material was work beyond the scope of H. Platt’s contract, DGS is liable to H. Platt for the additional costs incurred in this activity. This cost, with reasonable markup for overhead and profit totals \$212,875.98. Commonwealth, Department of Transportation v. Paoli Construction Company, 386 A.2d 173, 175 (Pa. Cmwlth. 1978); Pennsylvania Department of Transportation v. Gramar Construction Co., 454 A.2d 1205, 1207 (Pa. Cmwlth. 1983); Universal Builders, Inc. v. Moon Motor Lodge, Inc., 430 Pa. 550, 558-560, 244 A.2d 10, 16 (1968); A.G. Cullen, 898 A.2d at 1171.

19. The scope of work under H. Platt’s contract contemplated that H. Platt would backfill the pool pit with fill that was dry and compactable and met specifications. Ex. P-73.

20. The contract required that H. Platt keep the fill originally removed from the pool pit dry by protecting it, or dry it out before using it for backfill. If neither of these options were available, H. Platt was obligated to procure suitable fill offsite at no cost to DGS. Ex. P-73.

21. H. Platt was responsible under the contract to replace that fill at its own expense if it did not adequately protect or dry out the existing soil it removed from the pool pit. Ex. P-73.

22. Because H. Platt did not adequately protect the soil it removed from the pool pit and chose instead to import new fill rather than delay the project in an attempt to dry out this material; and because H. Platt’s contract provided the option for H. Platt to replace the soil at its own cost, DGS is not liable to H. Platt for any damages or extra costs in connection with the removal of wet fill or the importation of dry fill required for backfilling the pool pit since this was not work beyond the scope of H. Platt’s contract. See e.g., Paoli, 386 A.2d at 175; Gramar, 454 A.2d at 1207; Universal Builders, Inc., 430 Pa. at 558-560, 244 A.2d at 16; A.G. Cullen, 898 A.2d at 1171; Ex. P-73.

23. H. Platt's contract provided that the plumber, the .3 contractor, was to furnish a source of temporary water to the construction site during construction, and that H. Platt was required by its contract to pay for the water itself. Ex. P-73, Specifications 2.1B and 2.2B.

24. Under the terms of the contract, it was not the responsibility of the general contractor, H. Platt, to bring temporary water to the project site by trucking it onto the site during the construction period. (Ex. P-73, Specification 2.2B).

25. DGS directed H. Platt to truck water to the site to supply all the contractors at a cost of \$64,140.26. This was extra work outside the scope of H. Platt's contract. Ex. P-73.

26. DGS is liable to H. Platt for \$64,120.46 that H. Platt incurred in trucking temporary water to the construction site as work beyond the scope of H. Platt's contract which DGS directed H. Platt to perform. See e.g., Paoli, 386 A.2d at 175; Gramar, 454 A.2d at 1207; Universal Builders, Inc., 430 Pa. at 558-560, 244 A.2d at 16; A.G. Cullen, 898 A.2d at 1171; Ex. P-73.

27. H. Platt's bid on the contract was based on the contract documents (which included the plans, drawings and specifications) and site visit that DGS provided. The plans, drawings and specifications, as well as representations from the Professional, all indicated that the site was designed to balance. This meant that the amount of earth to be excavated at the site was essentially equal to the amount of fill needed to achieve the ground elevations in the site design. Exs. P-1, P-73, P-77.

28. The scope of work covered by the contract between DGS and H. Platt contemplated that the site was to balance. Exs. P-1, P-73, P-77.

29. H. Platt was entitled to rely on the plans and specifications provided by DGS and on the premise that, when it built the project in conformance with the plans and specifications, the anticipated results would be achieved. United States v. Spearin, 248 U.S. 132, 39 S. Ct. 59 (1918); Canuso v. City of Philadelphia, 326 Pa. 302, 192 A. 133 (1937); Department of Transportation v. W.P. Dickerson & Son, Inc., 400 A.2d 930 (Pa. Cmwlth. 1979); Allentown Supply Corp. v. Stryer, 195 A.2d 274 (Pa. Super. Ct. 1963); A.G. Cullen, 898 A.2d at 1156-1158.

30. When H. Platt completed the project in accordance with the plans and specifications and had to incur \$152,899.11 in costs for the removal of 18,470 cu. yds. of extra dirt, the removal of this excess dirt was extra work outside the scope of H. Platt's contract. DGS is liable to H. Platt for \$152,899.11 for removal of 18,470 cu. yds. of dirt to balance the site. Id.; Exs. P-73, P-77.

31. The contract provided that excavation on the site was "unclassified", meaning that, with very limited exception, all material found below ground level of whatever nature was included in the scope of H. Platt's excavation work. Ex. P-73.

32. Under the terms of the contract, excavation of bedrock was unclassified excavation which had to be removed from the site according to the plans and specifications for no additional compensation. Exs. P-73, D-1.

33. DGS supplied H. Platt with a geotechnical report containing core boring results and other information about subsurface conditions, but specified in the contract that it did not guarantee the accuracy or completeness of the core boring results, and notified H. Platt that it should make its own assessment of the site. Ex. P-73.

34. Despite provisions in its contract exculpating or relieving DGS from liability for excavation of subsurface conditions on the project and/or inaccurate information provided in its geotechnical report core borings or other information provided to H. Platt respecting such subsurface conditions, such exculpatory provisions are not effective to relieve DGS from liability if such information it provides is so significantly inaccurate or misleading as to constitute constructive fraud or active inference with a contractor's performance of its work on the project. See e.g., Thomas M. Durkin & Sons, Inc. v. Department of Transportation, 742 A.2d 233 (Pa. Cmwlth. 1999); Acchione and Canuso, Inc. v. Department of Transportation, 501 Pa. 337, 461 A.2d 765, 768 (1983); Pittsburgh Building Company v. DGS, BOC Opinion, Docket No. 3717, September 8, 2006, aff'd DGS v. Pittsburgh Building Company, 920 A.2d 973 (Pa. Cmwlth. 2007). Cf. Angelo Iafrate Construction Company, Inc. v. Pennsylvania Turnpike Commission, BOC Opinion, Docket No. 3654, July 27, 2006, pp. 66-69 (affirmed in unreported opinion of Commonwealth Court); Exs. P-73, P-77.

35. Because the bedrock found at one footing location at a two-three foot different elevation than H. Platt expected from the geotechnical information provided to it by DGS was a type of material that was expected to be encountered at the site and included in "unclassified" excavation; and because H. Platt failed to establish that this subsurface condition varied so substantially from the information provided so as to constitute constructive fraud or active interference with its work, DGS is not liable to H. Platt for any damages or extra costs for rock excavation at the site. Id.

36. Because H. Platt complied with its contract and contract specifications when it backfilled the areaway between the gym wall and the retaining wall, DGS' direction to H. Platt to remove and replace the fill in the areaway with #57 gravel was not required by the contract and was extra work outside the scope of H. Platt's contract. Ex. P-73.

37. DGS issued a change order to H. Platt in the amount of \$32,345.70 to repair the gym floor, but only paid H. Platt \$16,172.85 to do this work. Ex. P-65.

38. H. Platt was required by the terms of its contract to bear all costs of correcting its own defective work. Ex. P-73, General Condition § 63.142.

39. H. Platt failed to comply with its contract and contract specifications and drawings when it failed to grout the gap between the precast gymnasium wall sections and the gymnasium foundation below ground level along the areaway. Because we find that H. Platt's failure to grout the subsurface joint between the precast gymnasium wall and the gymnasium

foundation was not a primary but a contributing factor to the damage to the wood flooring in the gymnasium and contributed approximately 15% to said damage, we find that 15% of the costs incurred by H. Platt to remove and replace the fill in the areaway and to repair the wood flooring was not extra work beyond the scope of its original contract. See e.g., Paoli, 386 A.2d at 175; Gramar, 454 A.2d at 1207; Universal Builders, Inc., 430 Pa. at 558-560, 244 A.2d at 16; A.G. Cullen, 898 A.2d at 1171; Exs. P-73, P-77, D-10.

40. Because we find that the two primary causes of damage to the wood flooring (i.e. failure to install an HVAC system in the gymnasium to control ambient air humidity fluctuations and cleaning the wood floor with water and overweight equipment) and a third contributing factor (i.e. failure to utilize pressure treated exterior plywood as the sub-floor base for the gymnasium floor) were problems caused by decisions of Penn State, DGS, the Professional or others and not by H. Platt, we find that (except as noted in the immediately preceding paragraph) the additional cost to remove and replace fill in the areaway and to repair the wood flooring was extra work outside the scope of H. Platt’s contract incurred at the direction of DGS. Id.

41. DGS is liable to H. Platt in the amount of \$51,766.47 for costs incurred to replace fill in the areaway and repair the wood flooring as extra work outside the scope of its original contract. Id.

42. Because we find that H. Platt and DGS did not agree on material terms to the alleged workout arrangement/agreement we find that there was no oral agreement respecting the additional costs of removing and replacing the areaway fill and the unpaid balance of repair work to the gymnasium floor. See e.g., Edgcomb v. Clough, 275 Pa. 90, 103-105, 118 A. 610, 614-616 (1922); Lombardo v. Gasparini Excavating, Co., 385 Pa. 388, 392-393, 123 A.2d 663, 666 (1956).

43. DGS is liable to H. Platt for the \$212,875.98 for removal of the old material and the importation of new material to backfill the retaining wall; the \$64,120.46 for trucking temporary water to the project; the \$152,899.11 for removing the 18,470 cu. yds. of excess fill from the site; and the \$51,766.47 in extra work for repairing the gym floor and replacing areaway fill in spite of the lack of written change order authorization because it was directed to do this work by DGS under circumstances which would make it inequitable to deny H. Platt payment therefore by virtue of a contract provision requiring all change order work be done through written change order. Universal Builders, Inc., 430 Pa. at 558-560, 244 A.2d at 16; See also, Berwick v. Daniel W. Keuler Realtors, Inc., 595 A.2d 1272, 1274-1275 (Pa. Super. 1991).

Summary

44. DGS is liable to H. Platt for the following costs, which include appropriate mark-up for overhead and profit:

- a. Removing old fill from the site
and importing new fill to the site
for the area behind the retaining wall \$212,875.98

b.	Providing (trucking) temporary water to the site	\$64,140.26
c.	Removing excess soil from supposedly “balanced” site	\$152,899.11
d.	Performing work in the areaway between the gym and the retaining wall (removing/replacing fill) and repairing gym floor (after adjustment)	<u>\$51,766.47</u>
	Total	\$481,681.82

45. DGS is also liable to H. Platt for payment of prejudgment interest on the \$212,875.98 cost H. Platt incurred for removing from site and importing new fill to the area behind the retaining wall. This prejudgment interest is payable at the statutory rate for judgments (6% per annum), beginning December 18, 2000, the nearest date by which Board can confirm that H. Platt presented its administrative claim for this item to a DGS contracting officer, and running through the date of this Opinion and Order (i.e. \$86,825.30). 72 Pa.C.S.A. § 1751.

46. DGS is also liable to H. Platt for payment of prejudgment interest on the \$64,140.26 cost H. Platt incurred for providing (trucking) temporary water to the site. This prejudgment interest is payable at the statutory rate for judgments (6% per annum), beginning December 18, 2000, the nearest date by which Board can confirm that H. Platt presented its administrative claim for this item to a DGS contracting officer, and running through the date of this Opinion and Order (i.e. \$26,160.76). 62 Pa.C.S.A. § 1751.

47. DGS is also liable to H. Platt for payment of prejudgment interest on the \$152,899.11 cost H. Platt incurred for removing excess soil from supposedly “balanced” site. This prejudgment interest is payable at the statutory rate for judgments (6% per annum), beginning December 18, 2000, the nearest date by which Board can confirm that H. Platt presented its administrative claim for this item to a DGS contracting officer, and running through the date of this Opinion and Order (i.e. \$62,362.65). 62 Pa.C.S.A. § 1751.

48. DGS is also liable to H. Platt for payment of prejudgment interest on the \$51,766.47 cost H. Platt incurred for performing work in the areaway between the gym and the retaining wall (removing/replacing fill) and repairing gym floor (after adjustment). This prejudgment interest is payable at the statutory rate for judgments (6% per annum), beginning September 8, 2004, the date on which H. Platt presented its administrative claim for this item to a DGS contracting officer, and running through the date of this Opinion and Order (i.e. \$9,567.89). 62 Pa.C.S.A. § 1751.

49. DGS is liable to H. Platt for total damages (including prejudgment interest) in the amount of \$666,598.42.

50. DGS is liable to H. Platt for post-judgment interest on any unpaid portion of this total damage award of \$666,598.42 at the legal interest rate of 6% per annum beginning from the exit date of this order until paid. 62 Pa.C.S.A. § 1751.

OPINION

Plaintiff, H. Platt Company (“H. Platt”) has brought four complaints against defendant, Commonwealth of Pennsylvania, Department of General Services (“DGS”) that have been consolidated into the present action. The claims arise from a contract between the parties for the construction of a multipurpose and gymnasium facility on the Behrend campus of Penn State University (“Penn State”) in Erie, Pennsylvania.

Pursuant to the contract, H. Platt was the general contractor and obligated to perform the site clearing, excavation, masonry, foundations, steel piles, doors and windows, flooring and pool installation. Importantly to the present action, H. Platt’s scope of work included the building of a retaining wall between the hillside and the gymnasium wall, the excavation and backfill of the pool pit, the contouring and finishing of the site, the excavation for the footers for the building, the backfilling of the areaway between the retaining wall and the gymnasium wall, and the construction of the building including the installation of the gymnasium flooring.

Mr. Smith, president of H. Platt, attended the pre-bid site visit and asked the Professional questions about the design of the project, specifically whether the site was designed to be a balanced fill project. This was important because the excavation and earth moving portions of the contract would account for some of the largest expenses of the general works contractor and it was important for H. Platt to be able to accurately assess how much earth had to be excavated, how much material had to be disposed of off-site, how much material could be reused and how much new material had to be purchased.

In April 1999, DGS put the project out to bid pursuant to detailed plans and specifications. H. Platt’s bid was successful, and the contract was fully executed by the parties on August 4, 1999. DGS issued a notice to proceed on August 18, 1999. The project duration

was 400 days and the completion date was September 21, 2000 because Penn State wanted to use the facility for the fall 2000 term. Time was of the essence, and the contract provided for liquidated damages of \$1,750.00 for every day of delay.

H. Platt's original four complaints, now consolidated in the present action and amended, seek damages for extra work outside the contract that it alleges it performed at the specific direction of DGS without compensation, including: 1) over-excavation and backfilling of the area behind the retaining wall; 2) replacement of the pool pit fill; 3) provision of temporary water to the construction site; 4) removal and disposal of an extra 18,460 cu. yds. of soil after the site grading was completed; 5) excavation of rock not shown on the plans and specifications; and 6) repair and replacement work in connection with damage to the wood floor in the gymnasium. Each claim is discussed separately herein.

MOTION TO FILE A SECOND AMENDED COMPLAINT

The trial of this matter began on November 6, 2006. On November 14, 2006, during the trial, the plaintiff filed a motion to amend its existing complaint in Docket #3465 seeking to modify Paragraphs 12 and 13 in order to conform to the proof presented at trial. The trial concluded on November 17, 2006. On November 27, 2006, plaintiff, at the request of the Board, filed a brief in support of the motion. On January 3, 2007, DGS filed a response and its supporting brief opposing the motion.

Originally, in its amended complaint filed June 6, 2005, H. Platt included the following averments in Paragraphs 12 and 13 regarding its alleged oral agreement with DGS concerning the gymnasium floor controversy:

12. The parties agreed that if the humidity levels decreased significantly, indicating that the fill was contributing to floor issues, Platt would not be paid the remaining change order costs and its cost of replacing the fill.

13. If, on the other hand, the results indicated that the humidity levels were the same or worse, indicating the fill was not contributing to the problem, then Platt would receive the remaining amount of \$16,172.85 and its costs of \$44,728.88.

Now H. Platt seeks to amend these two paragraphs by changing the language of the averments to read:

12. The parties agreed that if the humidity levels decreased significantly, indicating that the fill was the primary cause of the floor cracking, Platt would not be paid the remaining change order costs and its cost of replacing the fill.

13. If, on the other hand, the results indicated that the humidity levels were the same or worse, and indicated that the fill was not the primary cause of the problem, then Platt would receive the remaining amount of \$16,172.85 and its costs of \$44,728.88.

H. Platt contends that Paragraphs 12 and 13, as proposed, more clearly reflect the parties' agreement regarding the removal and reinstallation of fill in the areaway adjacent to the south wall of the gymnasium by H. Platt and the subsequent monitoring of humidity levels in the gym floor area to determine whether, and how much, H. Platt would be paid for its work. H. Platt asserts that these paragraphs are amended to conform to the proof presented at trial, particularly the testimony of DGS regional director, Mr. Barkey. (N.T. 545). DGS opposes the motion to amend contending that the proposed amendments do not accurately conform to the evidence presented.

A party may amend its claim pursuant to Pa.R.C.P. Rule 1033, and amendments are liberally allowed to permit cases to be decided on the merits. Burger v. Borough of Ingram, 697 A.2d 1037, 1041 (Pa. Cmwlth. 1997). An amendment will not be allowed if it is contrary to a positive rule of law or where surprise and prejudice to the other party will result. Noll By Noll v. Harrisburg Area YMCA, 643 A.2d 81, 84 (Pa. 1994). Other reasons for denial include

amendments which will cause delay and waste the resources of the court and the opposing party in having to defend against the amendment. Id.

DGS has not asserted that it is surprised, prejudiced, or delayed by this proposed amendment. It only disputes the truth of the amended allegations. This is not a ground to deny the amendment. In actuality, neither party could produce an executed copy of this alleged agreement regarding resolution of the gymnasium floor problem, and it was clear throughout the hearing that there was a dispute over the exact terms of this supposed workout arrangement. DGS and H. Platt both presented evidence at trial and legal arguments in their briefs on the issue of exactly what agreement was reached between the parties, if any, and this proposed amendment in no way prejudices DGS' ability to present its case. Since the Board finds no element of surprise or unfairness, the amendment is allowed.

H. PLATT'S CLAIM FOR EXCAVATION AND BACKFILLING THE RETAINING WALL

H. Platt claims \$94,923.00 for excavating and \$174,974.00 for backfilling the sloped area behind the retaining wall. It alleges that these expenses were incurred for work required by DGS that was outside the scope of its contract.

After its contract for this project was fully executed in August 1999, H. Platt found out that the specific structural steel "I" beams needed for construction of the retaining wall on the job site (per contract specification) were not generally available. It also learned these "I" beams would not be produced or "rolled" in a U.S. steel plant until January 2000 and could not be delivered to the site until March 2000. Because cutting into the slope and construction of this retaining wall on the south side of the new gymnasium was viewed by both parties as a necessary precursor to beginning construction of the new building itself, H. Platt needed these steel "I" beams delivered during October of 1999 in order to stay on schedule. This caused H.

Platt a significant problem because, under its contract, any delay could result in the imposition of liquidated damages, and waiting for the steel “I” beams needed to build the retaining wall pursuant to the “top-down” method facilitated by the original plans and specifications would delay the rest of the building project unless some alternative could be found.¹

H. Platt informed DGS and Celli-Flynn of the steel delivery problem and inquired about the possibility of an extension of time. DGS refused any time extension, so that option was not available. H. Platt did not believe DGS would consent to the use of any foreign steel, so it did not request any waiver from the legal and contractual requirements that only U.S. steel be used for the project. The trial testimony of Martin Barkey, the DGS Western Regional Director of Construction, confirmed that it was highly unlikely that DGS would have approved the use of foreign steel on this project even if it had been requested by H. Platt.

With its first two alternative solutions unavailable, H. Platt proposed to circumvent the steel delay problem by changing the method of constructing the retaining wall. Instead of the “top-down” method facilitated by the project's original plans and specifications, H. Platt proposed to DGS that H. Platt would over-excavate the slope, cutting it back to a point where it could safely and timely commence construction on the gymnasium footers/foundation without benefit of the retaining wall being in place. Later, when the steel “I” beams were subsequently delivered, H. Platt would then construct the retaining wall with the same design and materials as originally called out in the specifications and drawings, but utilizing a “bottom-up” method of construction. This “bottom-up” method of construction refers to the fact that, since the slope had

¹ Pursuant to the contract specifications, H. Platt contemplated that the retaining wall would be constructed by first driving the specified steel “I” beams into the slope to necessary depth. After this, precast concrete retaining wall sections would be slotted between the “I” beams and excavation commenced on the face of the slope immediately below the precast concrete wall sections. As the slope face beneath the precast sections was removed, the concrete planks would descend by force of gravity, with additional concrete planks/sections placed on top of one another until the slope face was removed to the bottom of the wall. This allowed for construction of the retaining wall without significant impact to the slope behind the retaining wall, thus minimizing excavation, backfill and disruption to the structural integrity of the remaining hill behind the new retaining wall.

already been cut back well behind the retaining wall, the precast concrete panels would be slotted between the steel “I” beams initially at the bottom of the retaining wall and proceed to be stacked in an upward direction. While this over-excavation and “bottom-up” method of construction would allow the gymnasium foundation to proceed without waiting for the retaining wall, it did involve considerably more excavation of the hillside behind the proposed retaining wall prior to construction and more backfilling of that area after construction of the wall was completed. The Professional and DGS agreed that H. Platt could construct the retaining wall using the “bottom-up” method, and H. Platt eventually completed construction of the retaining wall in a satisfactory manner.

The initial issue to be decided is whether DGS must pay the costs that H. Platt incurred for the extra excavation and backfill required by the alternative construction method. The backfill issue itself also came to involve some additional controversy as the parties disagreed on the necessity of importing new material with which to backfill the retaining wall. Since this was directed by DGS and the Professional, a secondary issue arises as to which party should pay for this new material.

H. Platt makes several alternative arguments in support of its claim for payment. H. Platt's main argument is based on the doctrine of impossibility of performance and its corollary, the doctrine of impracticability. As a general rule, a party to a contract assumes the risk of its own inability to perform its contractual duties. Luber v. Luber, 614 A.2d 771 (Pa. Super. 1992). Restatement (Second) of Contracts, sec. 261, comment e. This assumption of risk typically includes the risks as to availability or unavailability of specified materials where, as here, the contractor agrees to provide same. See e.g., A. G. Cullen v. State System of Higher Education, 898 A.2d 1145, 1158-1159 (Pa. Cmwlth 2006); Mat-Su/ Blackard/Stephan & Sons v. State of

Alaska, 647 P.2d 1101, 1104-1105 (Alaska 1982). H. Platt clearly agreed in this case to supply the steel “I” beams specified in the plans for the retaining wall. (Ex. P-73, General Conditions § 63.36). A contractor that agreed to do an act should do it, unless absolutely impossible. Reading Steel Products v. Alexander, 47 Dauphin 369, 342 (1939). The exception to the rule that generally assigns the risk of performance to the party who has agreed to perform the act is the doctrine of legal impossibility or commercial impracticability.

As stated in West v. Peoples First Nat’l Bank & Trust Co., 378 Pa. 275, 106 A.2d 427 (1954), and its progeny, it is well established law in this Commonwealth that, “[u]nder the doctrine of impossibility of performance ... if, after a contract is made, a party’s performance is made impracticable through no fault of his or her own, the parties may waive the difficulties or terminate the agreement, ending all contractual obligations.” Although West espoused the principle found in the first Restatement, the Restatement (Second) of Contracts, sec. 261, which is cited by H. Platt in its brief, has similar language addressing supervening impracticability.

This section states:

Where, after a contract is made, a party's performance is made impracticable without his fault by the occurrence of an event the non-occurrence of which was a basic assumption on which the contract was made, his duty to render that performance is discharged, unless the language or the circumstances indicate the contrary.

The doctrines of impossibility and impracticability overlap because impossibility of performance means not only strict impossibility, but also includes impracticability when extreme and unreasonable difficulty, expense or loss is involved. West, supra., at 282, 432; Albert M. Greenfield & Co., v. Kolea, 475 Pa. 351, 380 A.2d 758 (1977); Hart v. Arnold, 884 A.2d 316, 334-335 (Pa. Super. 2005). Comment d to the Restatement (Second) of Contracts Sec. 261, notes, among other things that “a severe shortage of new materials or of supplies due to war,

embargo, local crop failure, unforeseen shutdown of major sources of supply, or the like, which causes a marked increase in cost or prevents performance altogether may bring the case within the rule stated in [Sec. 261].” However, this comment also states that “impracticability” means more than “impracticality” and requires circumstances with very severe economic consequences. Moreover, “[a] party is expected to use reasonable efforts to surmount obstacles to performance and a performance is impracticable only if it is so in spite of such efforts.” Id.; F.J. Busse, Inc. v. Department of General Services, 408 A.2d 578, 581 (Cmwlth. Ct. 1979).

Courts typically apply the doctrine of impossibility/impracticability to cases where one party is trying to enforce a contract but the other cannot perform and uses the doctrine to excuse its non-performance. In the case at bar, H. Platt fully performed its duty to build a retaining wall and does not attempt to use the doctrine as a defense for non-performance or as a defense to any DGS claim for damages. In fact, DGS does not claim any breach by H. Platt in connection with construction of the retaining wall. H. Platt has fully performed its duty to construct the retaining wall despite the unavailability of the steel “I” beams in the time frame originally planned by H. Platt. H. Platt instead invokes the doctrine of impossibility/impracticability as a sword rather than a shield and is seeking damages for extra costs entailed by that performance pursuant to this doctrine.

Although the Board is not prepared to say that the doctrine of impossibility/impracticability can never be invoked for reasons other than to excuse non-performance or to terminate a contract, we are quite sure that the facts of this case do not support the use of this doctrine for any purpose. To begin with, the doctrine requires that the impossibility or impracticability occur "after a contract is made." Restatement (Second) of Contracts, sec. 261. Although it appears from its testimony that H. Platt did not discover that the

specific steel “I” beams needed for the job were unavailable in a timely manner until after the contract was fully executed on August 4, 1999, it is equally apparent that, in fact, the steel was unavailable for timely delivery before and at the time H. Platt signed this contract.² H. Platt did not know this because of its own unfamiliarity with the steel industry and because it had typically solicited quotes for steel in the past from subcontractors, not from material suppliers. Moreover, H. Platt simply did not present sufficient evidence to convince the Board that it made inquiries regarding availability of these specific steel “I” beams needed on this job in this case, but instead only solicited steel price information for its bid proposal. The evidence also indicated that H. Platt intended, on the basis of the steel pricing information, that it would not utilize any subcontractors for the steel work, but would purchase and install the steel “I” beams itself. It was only after H. Platt made this decision and the contract was fully signed that H. Platt made the subsequent inquiries which revealed that the steel was unavailable under the steel mill rolling schedules within the time frame required by Platt’s original construction schedule. Since the problem with the rolling mill schedules was present before the contract was signed, even though H. Platt did not find out about it until after signing the contract, the timing requirement for application of the doctrine of supervening impracticability has not been met.

Of equal importance in precluding use of the doctrine of impracticability/impossibility in the case before us is the simple fact that building the retaining wall (with the materials and as designed in the project plans and specifications) was neither impossible nor impracticable. This is clearly evidenced by the fact that H. Platt did exactly this when the “I” beams were eventually delivered. Plaintiff has not provided this Board, nor have we found, case law precedent for invoking the doctrine of supervening impracticability due to a delay in material delivery of the

² H. Platt signed its contract and submitted same to DGS on or about June 29, 1999. The prior rolling schedule for the steel “I” beams needed was in June 1999.

type experienced in this case. Finally, we note our view that the extra expense claimed by H. Platt to perform the alternative “bottom-up” method of constructing the retaining wall (less than \$300,000 on a 7.7 million dollar contract) is far from the severe economic consequences required of the doctrine to excuse performance.³

In an alternative argument for recovery of its additional costs incurred as a result of building the retaining wall pursuant to the “bottom-up” as opposed to the “top-down” method, H. Platt contends that it performed extra work outside the scope of its contract. DGS responds that, inter alia: no change order for the work was approved; H. Platt contracted to build the retaining wall to conform to the plans and specifications and that is all DGS required it to do; and since the construction method is within the contractor’s choice of means and methods, DGS allowing H. Platt to build the retaining wall as it did was not extra work but simply a different method selected by H. Platt and requires no extra payment. The Board agrees with DGS. Since the contract required that a retaining wall be built, and H. Platt proceeded to build that wall as it was originally designed, but using alternate means and methods (i.e. “bottom-up” as opposed to “top-down”), the over-excavation and backfill operation was not outside the scope of the contract work. H. Platt knew that its new “bottom-up” building method required both over-excavation and additional backfilling activity behind the retaining wall when it proposed the change to DGS. It did so in order to adjust for its inability to procure the requisite steel “I” beams in a timely fashion, a risk it assumed initially, as discussed above. H. Platt chose to proceed with the new construction method with the acquiescence of DGS and the Professional, not at their direction.

³ Plaintiff did not cite the doctrine of existing impracticability to the Board as contained in Restatement (Second) of Contracts, sec. 266, nor did it cite to any Pennsylvania case law espousing this principle. We do note, however, that this doctrine would also be inapplicable given the second and third reasons we find to deny its claim based on supervening impracticability.

H. Platt correctly states the law that “contractors performing work and incurring costs beyond the scope of the contract are entitled to compensation therefore.” Commonwealth, Department of Transportation. v. Paoli Constr. Co., 386 A.2d 173, 175 (Pa. Cmwlth. 1978); Pennsylvania Dept. of Transportation v. Gramar Construction, Inc., 454 A.2d 1205, 1207 (Pa. Cmwlth. 1983); A.G. Cullen, 898 A.2d at 1171. It is also correct when it argues that, under such Pennsylvania case law as Universal Builders, Inc. v. Moon Motor Lodge, Inc., 430 Pa. 550, 244 A.2d 10 (1968), when one party orders another to perform extra work, a contract condition requiring written change orders may be excused by implication where the circumstances require to avoid inequity. In the Universal case, the Pennsylvania Supreme Court noted that while construction contracts typically provide that the builder will not be paid for extra work unless it is done pursuant to a written change order, courts frequently hold that the owners must pay for extra work done at the owner’s oral direction. Id. at 558. However, because the Board finds that the retaining wall was built as designed and the over-excavation and related backfill operation behind the retaining wall were the result of the contractor’s choice of means and methods, these tasks are not extra work, and no further compensation is due for the cost of same.

H. Platt also argues it is entitled to additional compensation because the alternate construction method facilitated timely completion of the contract, which was very important to DGS and Penn State. While the Board agrees that timely completion was important, completing the project on time (i.e. within the 400 days provided in the contract) was what H. Platt agreed to do under the contract. Meeting the contract deadlines was not work outside the scope that requires extra compensation.

H. Platt’s final argument is that the agents of DGS are barred by the doctrine of equitable estoppel from asserting that H. Platt does not have a right to be paid for the over-excavation and

backfill work that was done. Mr. Smith from H. Platt testified that Mr. Walker and various DGS employees on the job with whom he discussed this steel delivery problem (and his proposed solution) gave him the impression that H. Platt would be given a change order for this work. He also testified that John Bender, a DGS geologist, stated that, in Bender's opinion, H. Platt should be paid for at least some of the excavation and backfill work. (N.T. 274, 288-289; Ex. P-32). The essential elements of estoppel are an inducement of a party to believe that certain facts exist, an act of justifiable reliance on that belief, and a detriment to the actor. Novelty Knitting Mills, Inc. v. Siskind, 500 Pa. 432, 457 A.2d 502 (1983). Mr. Bender, as a DGS geologist, clearly was not the official decision-maker regarding approval of change orders or authorizer of extra work for DGS. H. Platt knew or should have known this. Moreover, Mr. Smith's testimony on this point was, in the Board's view, too vague to establish whether promises were made to grant change orders or DGS representatives simply confirmed that change order submission was the procedure to follow. H. Platt has not shown sufficient facts to support an award under the doctrine of equitable estoppel for compensation for over-excavation and backfill operations on the construction of the retaining wall.

For the reasons explained above, the Board is not sympathetic to the Plaintiff's argument with regard to the extra cost incurred in the actual over-excavation and corresponding backfill operations incurred in constructing the retaining wall pursuant to the "bottom-up" method. However, we view the issue and costs related to DGS's subsequent directive to H. Platt to remove the original soil from the site and replace it with new, more granular material in order to backfill the area behind the retaining wall as a different issue. Specifically, we note that H. Platt was not advised by DGS at the time it proposed to over-excavate and utilize the "bottom-up" method of building the retaining wall that DGS would require H. Platt to remove and replace the

over-excavated soil with new material. Additionally, we note that geological testing by H. Platt confirmed that the existing soil removed by the over-excavation were of types (i.e. GM, GC, SM, and SC) that were expressly identified in Section 02200 of the project specifications to be considered satisfactory fill or backfill. We further note Mr. Bender's initial suggestion when called to consult on this issue that at least some of the on site soil could be used for backfill behind the retaining wall. Accordingly, the directive by the project Professional and DGS to remove the existing fill and replace it with new granular material was work beyond the scope contemplated by the original contract.

The Board's assessment of this issue does not change due to the other concerns cited by DGS and the Professional (i.e. the need to restrict and or limit the compaction load and procedures for backfill behind the retaining wall). While we recognize these as legitimate concerns, such limitations and restrictions on compaction procedures (as were outlined by the Professional and DGS) could just as readily have been imposed for utilization with the original soil as with the new granular material. This is further confirmed by Mr. Smith's testimony, which showed that his intended method for compaction of the existing soil would have been well within the parameters set by DGS and the Professional. Accordingly, we find that the tasks of trucking the original soil off site and disposing of same, the acquisition of new material and the importation and trucking of same on to the site are tasks beyond the scope of the contract which H. Platt was directed to perform by DGS. Accordingly, the cost of same are costs incurred by DGS for work beyond the scope of its contract.

In sum, the Board denies H. Platt's claim for additional expenses incurred for the actual over-excavating and backfilling operations performed in conjunction with its construction of the retaining wall pursuant to the "bottom-up" method. We do, however, find DGS liable to H. Platt

for the cost of the new imported fill required by DGS to backfill behind the retaining wall and the costs of trucking the old soil off site and the new fill to the site as work beyond the scope of the contract.

H. PLATT'S CLAIM FOR BACKFILL FOR THE POOL PIT

H. Platt makes a claim for \$69,341.21 for the cost of imported fill for the pool pit. H. Platt excavated the pool pit to a depth of 29 feet and set the soil extracted from the pit aside in a pile so it could be used later to backfill the hole. The soil was initially tested by the DGS engineer and found to be suitable for later use as backfill. DGS told H. Platt to cover the pile to keep the material dry because the winter weather in Erie was very wet. Mr. Smith testified H. Platt placed some Visqueen and tarps over the top of the pile, but Mr. Wagner, the DGS inspection supervisor, testified that he observed that the pile was only partially covered and was exposed to snow and wet conditions. Mr. Wagner indicated that more waterproof material than the 20 foot strip of Visqueen could have been purchased and used. Because the Board found Mr. Wagner's testimony quite credible in contradicting Mr. Smith's testimony that H. Platt took adequate protective measures to cover the soil piles, the Board concluded that H. Platt was at fault for failing to protect the backfill from the wet weather.

In late January 2000 when H. Platt was ready to backfill the pool pit, DGS again tested the material in the pile, but now found it too wet to compact properly. Since it no longer met the specifications, H. Platt had two choices under the contract: spread out the wet material and let it dry, or import new backfill "at no additional cost to the Department." (Ex. P-73, Specification 02200-8, paras. 3.10B and 3.10C). Waiting for fill to dry in the winter weather would have meant several months of delay, and H. Platt wanted to avoid the imposition of liquidated

damages. Accordingly, H. Platt chose to dispose of the old and bring in new backfill for the pool pit.

Despite the fact that the contract specifically provided that H. Platt had to purchase fill when the on site material could not meet specifications, H. Platt still claims it is entitled to extra payment under several theories. First, it claims the work was outside the scope of the contract. This argument is rejected because of the provisions of the contract cited above. It was H. Platt's contractual responsibility to keep the fill dry, and it failed to take adequate precautions. Next, H. Platt asserts that the doctrine of impossibility should be applied because it asserts that it did everything "commercially reasonable" to keep the fill dry. This argument is rejected because the Board has specifically found that H. Platt did not do all it could to keep the fill dry by covering it adequately. This wet backfill problem was entirely foreseeable, and the contract clearly provides a solution for this problem. While H. Platt argues that the weather conditions in Erie made this portion of the contract impracticable, it also states it was very experienced constructing buildings in Erie's wet winter conditions. This means H. Platt should have either provided adequate protection for the fill or anticipated having to import dry material. The doctrine of impracticability/impossibility cited in West, supra. does not permit recovery on this claim because it was possible for H. Platt to protect the fill in the winter weather. It was also possible to import dry replacement fill without causing extreme and unreasonable difficulty or loss.

Finally, H. Platt argues that DGS is barred by the doctrine of equitable estoppel from asserting that H. Platt does not have a right to be paid for the imported, dry backfill. H. Platt alleges that DGS' agents, particularly Jerry Jones, ordered the importation of dry fill and represented that DGS would pay for it. DGS denied it ordered H. Platt to perform extra work or that Mr. Jones promised that DGS would pay for the fill. The Board finds that H. Platt was

already obligated to import dry fill under the contract without extra compensation. The Universal case, cited above by H. Platt stands for the proposition that a contractor can seek extra compensation for extra work performed pursuant to an oral directive. The Universal holding does not apply to the claim here at issue because the importation of dry fill was not extra work outside the scope of the contract; it was specifically provided for in the contract. The Board finds that disposing of wet fill and importing dry fill for the pool pit was work within the scope of the contract, particularly since H. Platt failed to adequately protect the fill in the first instance.

H. PLATT’S CLAIM FOR PAYMENT FOR SUPPLYING TEMPORARY WATER

The specifications of the project in Section 2.2A provide, “The Plumbing Contractor shall, at its own cost, install, operate, protect and maintain an adequate water supply for the use of all Contractors on the project during the period of construction” Section 2.2 B provides, “The Plumbing Contractor will be required to bring the temporary water supply to a point approximately ten (10) feet from the building” (Ex. P-50).

The plumbing contractor was unable to provide the specified water service line because issues with the local water authority were not resolved until near the end of the project. Instead, DGS directed that H. Platt truck water onto the site for its own use and for that of other contractors. At the trial, two DGS witnesses, Mr. Walker from Celli-Flynn and Mr. Barkey, the DGS regional director, both contradicted DGS’ initial contract interpretation that H. Platt was responsible under the contract to provide temporary water. They each testified that Specification 2.2B indicated that it was the plumbing contractor’s responsibility to get the temporary water supply to the project. H. Platt, at its own expense, trucked water to the site for the entire project. H. Platt charged DGS \$64,140.26 for providing this service, and DGS erroneously denied this

claim on the basis of Specification 2.1B. That specification required H. Platt to pay for the water itself (which H. Platt did), not to pay the cost of getting the water to the project.

DGS alternatively argues that this is really a dispute between the general contractor and the plumbing contractor, and therefore DGS has no liability. (N.T. 626; DGS Brief at 10). The Board rejects this argument because DGS drafted the contract that required the plumbing contractor to provide water to within 10 feet of the buildings on the site and then directed H. Platt to supply this water despite its own provision. This was extra work not covered by the scope of H. Platt's duties under the contract. The Board finds that H. Platt should be compensated in the amount of \$64,140.26 for providing this service. See e.g., Paoli, Gramar, A.G. Cullen, Universal, supra.

THE BALANCED SITE ISSUE

After constructing the building and contouring the project site, H. Platt was left with approximately 18,470 cubic yards of excess dirt that it had to remove. H. Platt claims that DGS is liable for the \$152,899.11 that it incurred to truck this dirt off the site as extra work outside its contract.

Evidence presented at trial showed conclusively that the Professional designed this project to be a balanced construction site, meaning there should have been no material amount of soil/fill needed to be imported to the site or leftover for disposal from the site at the end of the project. H. Platt was told orally and the plan drawings confirmed that this was a balanced site, and it bid on the contract based on these representations. H. Platt also used the project plans and specifications supplied by DGS to perform its own calculations to conclude that the site would approximately balance. Despite the understanding by both parties that the site was designed to balance, and assurances of same by the Professional, H. Platt was left at the end of the project

with several very large piles of dirt (18,470 cu. yds.), indicating that the site did not balance. DGS ordered H. Platt to remove and dispose of this excess dirt, and H. Platt incurred costs of \$152,899.11 for this work. The accuracy and reasonableness of the costs for disposal are not disputed.

DGS' first defense to this claim is that the contract language says none of the costs of removal or disposal of any dirt from the site will be paid by DGS. (Ex. D-1). The Board finds that this provision applies only to removal and disposal of dirt relating to work done pursuant to the contract, as in the claims for removal of soil from the retaining wall and the pool pit areas. Here the situation is different because the contractor was explicitly told that there would be no extra dirt at the end of the project. The Board finds that removal of the 18,470 cu. yds. of extra material are well outside the scope of the work H. Platt reasonably expected pursuant to the plans and specifications and agreed to do under the contract.

DGS' second defense is that the material in the piles in the parking lot must have come from H. Platt's other claims, i.e. from the excavation of the retaining wall or the pool pit, and therefore this soil was covered by the contract language and DGS does not have to pay extra for any disposal. The problem with this defense is that DGS offered no testimony or proof at trial that this dirt came from these excavations. DGS simply wants the Board to accept its position based on its allegation that such a large amount of dirt could not just "magically" appear. In contrast, H. Platt presented affirmative testimony that there was no co-mingling of soil from the retaining wall or pool pit with the soil piles in the parking lot (i.e. that those earlier amounts were separately removed and were not part of the 18,470 excess cu. yds.). Faced with the contractor's unequivocal testimony and no evidence to the contrary, the Board cannot "magically" infer that

DGS is correct. DGS had the opportunity to prove this defense, and it failed to offer any evidence.

H. Platt also attempted to offer several theories regarding how a design mistake by the Professional could have caused the unbalanced site. Mr. Smith noted, among other things, that the topological survey was done by aircraft and that this method is less accurate than a ground survey. The Board is unable to ascertain any single cause as to why the site did not balance when the plan showed it would. However, H. Platt did satisfy its burden to show the fact that it built the site in accordance with the plans and specifications; that the site was designed to balance; that the site did not balance through no fault of H. Platt; and that H. Platt relied on these representations and plans and specifications. Accordingly, H. Platt has established that the extra work to dispose of the remaining dirt was work outside the scope of the contract, and DGS is liable for the costs incurred to remove same at its direction. Contractors that perform work and incur costs beyond the scope of the contract at the owner's direction are entitled to compensation therefor. See e.g., Paoli, Gramar, A.G. Cullen, Universal, supra.

H. PLATT'S CLAIM FOR ROCK EXCAVATION

H. Platt makes a claim for \$33,979.00 for removing bedrock from a footer trench on the south end of the gymnasium because rock was found there at a higher elevation than H. Platt expected from the test boring data. H. Platt asserts that before bidding the job, it reviewed the specifications, drawings and the geotechnical report that included test borings made by the DGS technical engineer. (N.T. 35-36) The test borings showed the elevations where the bedrock would be encountered. (N.T. 177) H. Platt wanted to know the rock elevations because when it dug the footers for the building the specifications required it to excavate down four feet for frost protection. (N.T. 177, 185) For this particular project, Mr. Smith estimated that DGS dug 10 or

15 test holes around where the building was going to go and then developed contour lines showing the elevations where bedrock would be found. (N.T. 179).

Mr. Smith testified that, “Generally the elevations ran true to form. With the exception of this particular area where we ran into rock, there was...there was incorrect [rock elevation data] or unforeseeable or a geological function.” (N.T. 177) He stated that the contours created from the test borings indicated rock at an elevation of 1045 feet at the south side of the gymnasium between column lines 15 and 17, but H. Platt encountered it three feet higher at 1048 feet. (Ex. P-57; N.T. 178). H. Platt claims that the two-three foot difference at this footer location was “a material difference in the site” and also that it was a concealed site condition that could not have been ascertained prior to digging the trench there. (N.T. 178) On November 2, 1999, H. Platt requested a change order for excavating the extra three feet of shale rock. (N.T. 179-180) DGS denied the change order request because site excavation was unclassified under the contract. (Ex. P-58).

DGS argues that various provisions in the contract regarding the presence of rock and subsurface conditions prevent recovery. First, DGS points out that the contract clearly defined this excavation as “unclassified,” meaning that the contractor was responsible for excavating all types of earth found at the site, including bedrock, and that all types of excavation was included in the bidders’ contract price. (Ex. P-73, Sec. 02200, ¶ 1.4). The contract also stated that all excavated material, again including bedrock, would not be considered as concealed conditions or unknown physical conditions for purposes of extra payment. (Ex. P-73, General Conditions, ¶ 63.13(H)).

DGS also points out other provisions of the contract that put contractors on notice that any bid for the project had to include some amount for concealed rock. The contract states that

the geotechnical report was provided to H. Platt without any guarantee as to its applicability to any portion of the site beyond the specific location of the borings, and that any reliance upon it was at the contractor's own risk. The applicable section states:

A geotechnical report has been prepared for this project and is available for information only. The report is not part of the Contract Documents. The opinions expressed in this report are those of the geotechnical engineer and represent interpretations of the subsoil conditions, and analyses conducted by the geotechnical engineer. Ex. P-73, Sec. 12260, para. 5B.

The contract further provided that DGS did not guarantee the accuracy of the test borings and that they were not part of the contract documents. (Ex. P-73, sec. 02200, para. 1.7A).

Mr. Smith, from H. Platt, acknowledges this contract language, but argues that these disclaimers/exculpatory provisions simply do not reflect the reality of actual practice. Specifically, Mr. Smith argues that such geotechnical reports and test borings as were provided to him by DGS here are typically given out by DGS; are reviewed by all bidders having to deal with subsurface conditions on all jobs; and that DGS and the contractors do so in order to solicit and submit the most accurate and lowest bids possible for the job to be done. In other words, to not rely on such information when available would be irresponsible, contrary to industry practice and create an atmosphere conducive to higher bid prices if nothing could be ascertained regarding subsurface conditions and the worst must be assumed. We find a significant thread of truth to Mr. Smith's argument in that DGS appears to want the best of both worlds, lower bids by providing subsurface information initially while disclaiming any and all responsibility for such information it provides if discrepancies arise later, no matter how inaccurate or misleading.

The Board certainly appreciates DGS' position and acknowledges that we must first look to applicable contract provisions to resolve the dispute before us. We also appreciate the realities of state contract bidding and formation reflected in Mr. Smith's argument where the drafting

opportunities are wholly one-sided and negotiation of terms is non-existent. It is for these reasons we again affirm the position espoused by this Board (and supported by appellate case law) that such exculpatory contract terms are effective to deflect responsibility from DGS unless circumstances are such as to establish that the geotechnical information provided (including test borings or other information) is so significantly misleading as to constitute constructive fraud or active interference with the contractor's work on the project at hand. Under the latter circumstances, such exculpatory provisions of the contract, by themselves, do not bar recovery. See e.g., Thomas M. Durkin & Sons, Inc. v. Department of Transportation, 742 A.2d 233 (Pa. Cmwlth. 1999); Acchione and Canuso, Inc. v. Department of Transportation, 501 Pa. 337, 461 A.2d 765, 768 (Pa. 1983); Pittsburgh Building Company v. DGS, BOC Opinion, Docket No. 3717, September 8, 2006, aff'd DGS v. Pittsburgh Building Company, 920 A.2d 973 (2007). Cf. Angelo Iafrate Construction Company, Inc. v. Pennsylvania Turnpike Commission, BOC Opinion, Docket No. 3654, July 27, 2006 pp. 66-69 (affirmed in unreported opinion of Commonwealth Court).

H. Platt, of course, has the burden to show by a preponderance of the evidence that the test borings and the geotechnical report provided to it in this case vary so significantly from the subsurface conditions encountered as to constitute constructive fraud and/or active interference. Paliotta v. Department of Transportation, 750 A.2d 388 (Pa. Cmwlth.1999). It has clearly failed to do so.

Plaintiff's first problem is that, while it alleges it was materially misled by the geotechnical report and the test borings, it has failed to introduce these documents into evidence or make them part of the trial record. Without reviewing these documents, it is impossible for

the Board to ascertain what information in these documents, or parts thereof, were inaccurate or misleading, let alone determine the degree of inaccuracy.

Additionally, the evidence is unclear as to the extent of the “higher rock” that was encountered and removed. Mr. Smith was the sole witness for H. Platt on the rock excavation issue, and his testimony provides the only facts in the trial record that support this claim. While H. Platt insists that the amount of rock it encountered was a material change to the contract, the facts provided by Mr. Smith do not establish this argument. First, H. Platt claimed its extra rock excavation costs were \$34,000, but in the context of a total construction contract of \$7.7 million this is not a material amount. Second, H. Platt claims the extra amount of rock it excavated was only two to three feet beyond the elevation shown for the closest test boring location and that this extra rock was at a single location. Mr. Smith’s testimony in the trial transcript at page 178 locates the extra rock in the gymnasium footer trenches between columns 15 and 17. From this testimony it is not possible to accurately determine the amount of excavation that was required. Mr. Smith gave the location of the extra rock only by reference to two column lines on the drawings, but he never stated the length of the trench where the extra rock was excavated. The possibilities appear to be either that H. Platt claims that it excavated three extra feet of rock in some portion of a footer trench running north and south between columns 15 and 17 (a maximum distance of 31 feet), or H. Platt may be claiming that it excavated the extra three feet of rock in the trench that ran the entire length of the south gymnasium wall parallel to columns 15 and 17, a section that was 192 feet long, or some smaller portion thereof. (Ex. P- 77, Drawings S-01, S-02). No evidence in the record clarifies these questions. Based upon the record before the Board, there is insufficient evidence that the geotechnical report or the test borings were

sufficiently inaccurate or misleading to establish constructive fraud or active interference with its work on the project.

H. Platt mentions in its brief that it claims equitable estoppel as a basis for recovery for the extra rock excavation. This legal theory also is not supported by sufficient facts. The only testimony on the point was from Mr. Smith who stated that when the extra rock was discovered at the footer trench, he reported it to Robert Wagner, the DGS site inspector, who told him to “put in for a change order.” (N.T. 180-181) Mr. Wagner testified but was not asked about any statements he made with respect to the rock excavation. H. Platt argues that this alleged statement by Mr. Wagner was a promise by Mr. Wagner on behalf of DGS that H. Platt would be paid for excavating the extra rock. (Plaintiff’s Proposed Finding of Fact No. 158). The statement by Mr. Wagner in the trial record does not support this conclusion. No facts presented support this claim for equitable estoppel.

The Board denies H. Platt’s claim for compensation for excavating extra rock from the footer trench.

H. PLATT’S CLAIM FOR EXTRA WORK RELATING TO THE GYM FLOORING

H. Platt claims it is owed two amounts in connection with repair and replacement work relating to the maple wood floor in the gymnasium. First, H. Platt claims that DGS has failed to pay a balance of \$16,172.85 for floor repair work that H. Platt performed at DGS’ direction and pursuant to an approved Change Order #24. In 2003, three years after the floor was installed, and after the floor’s warranty period had expired, DGS called H. Platt back to the project to make repairs because the gym floor had begun to crack and buckle in several places. DGS approved Change Order #24 for this work. H. Platt satisfactorily completed the requested repairs, but DGS then refused to pay H. Platt. Second, H. Platt claims that DGS owes it

\$44,728.88 for removal and replacement of fill material in the areaway between the retaining wall and the gymnasium wall, work that was done at DGS' direction and that was outside the scope of the contract.

DGS responds to these two claims by arguing first that H. Platt was responsible for the damage to the floor because it failed to follow the specifications of the contract in constructing the areaway next to the gymnasium. DGS asserts that H. Platt installed the wrong backfill and failed to seal the small sub-grade gap between the bottom of the precast gym wall sections and the top of the gymnasium's foundation. DGS argues that this non-conforming work in the areaway allowed moisture to enter the space below the flooring and cause it damage. As a result DGS claims that no payment is owed for any of the "remedial" work replacing the areaway fill and grout or for the earlier floor repair work that H. Platt performed under Change Order #24. DGS also asserts that it does not owe H. Platt any money for floor repairs or areaway work because it had an oral agreement with H. Platt that if certain testing of temperature and humidity conditions in the gym showed that the areaway work was the cause of the floor damage, H. Platt would not be paid either of the amounts claimed. Some elements of this second DGS argument overlap with the first.

It was shortly after H. Platt's repair of the wood flooring in the gymnasium that DGS first raised the possibility that it was H. Platt's fault caused by improper backfill in the areaway outside of the gymnasium wall. Following a meeting of the parties in September 2003, Penn State retained the services of an engineering consultant, Mr. Hunt, to perform certain humidity and temperature testing at various locations in the gymnasium in order to determine the causes for the wood floor damage and to determine if these causes included the areaway construction by H. Platt. The results of Mr. Hunt's investigation are set forth in his report which was submitted

into evidence as Exhibit D-10. In both his report and in his testimony at hearing Mr. Hunt indicated that, in his opinion, the flooring in the gymnasium was damaged by five contributing factors. He identified these factors as follows:

1. H. Platt's failure to construct the areaway and provide drainage backfill therein in a proper manner as per contract specification, thereby preventing proper areaway drainage and increasing humidity levels under the gym flooring;
2. H. Platt's failure to grout the joint between precast wall and gym foundation along the areaway as per contract specification, thereby preventing proper areaway drainage and increasing humidity levels under the gym flooring;
3. Failure of the plans and specifications to specify pressure-treated exterior grade plywood for the gym sub-floor thereby making this base beneath the maple flooring and running track more susceptible to swelling from migrating moisture;
4. Penn State's use of floor maintenance equipment exceeding wheel load limitations which introduced water and water based cleaning solution to the floor contrary to flooring manufacturer's recommendations (as well as excessive load from rolling bleachers); and
5. Failure to install HVAC (air conditioning) system to maintain humidity levels in gymnasium within floor manufacturer's recommended range.

Based on the totality of the evidence presented, including a careful review of Mr. Hunt's report, extensive questioning and discussion of the data and reasoning contained therein, and review of the project specifications and drawings as well as testimony by Mr. Hunt, Mr. Smith and others, the Board has determined that four of the five factors identified by Mr. Hunt did indeed contribute to the cracking and buckling problem with the gymnasium floor. Specifically we find that this damage was caused by the following factors:

1. Failure to install HVAC (air conditioning) system to maintain humidity levels in gymnasium within floor manufacturer's recommended range.

2. Penn State's use of floor maintenance equipment exceeding wheel load limitations which introduced water and water based cleaning solution to the floor contrary to flooring manufacturer's recommendations (as well as excessive load from rolling bleachers);
3. Failure of the plans and specifications to specify pressure-treated exterior grade plywood for the gym sub-floor thereby making this base beneath the maple flooring and running track more susceptible to swelling from migrating moisture; and
4. H. Platt's failure to grout the joint between precast wall and gym foundation along the areaway as per contract specification, thereby preventing proper areaway drainage and increasing humidity levels under the gym flooring.

Of these four factors, we find that the first two, Penn State's failure to install an HVAC system and its use of improper cleaning and floor maintenance methods to be, by far, the primary and most significant causes of the damage experienced to the maple wood flooring. We find the remaining two items, the failure of the plans and specifications to require pressure-treated exterior grade plywood for the gym sub-floor and H. Platt's failure to grout the joint between the precast wall and the gymnasium foundation wall, to be contributing causes to the floor damage. As a result, the Board has determined that H. Platt's failure to properly grout the precast wall/foundation joint to have contributed 15% of the damage incurred to the gym floor and the resultant cost to remedy this problem. We hold DGS to be responsible for the remaining damage and associated costs.

The facts found by the Board show that after H. Platt installed the gym floor in 2000, Penn State used the gym for the next two years and damaged the floor by cleaning it with water and rolling heavy cleaning machinery over it, contrary to the manufacturer's and the industry's standard recommendations. This resulted in numerous cracked floor boards. Penn State also rolled heavy bleachers over the floor that added extra seating for certain events. In addition,

regular plywood rather than pressure-treated exterior or “wolmanized” plywood was installed as a sub-floor base. This made the maple wood flooring more susceptible to moisture and damage by movement of the sub-floor below. The Professional failed to include contract specifications that called for “wolmanized” or pressure-treated exterior plywood for the sub-floor. Most importantly, however, the flooring manufacturer’s specifications and the guidelines from the association of floor manufacturers stated that the maple flooring would be very sensitive to changes in temperature and humidity in the gymnasium. These specifications explicitly recommended that air conditioning be utilized to maintain humidity levels below 50% and to limit humidity fluctuations to less than 15% to minimize floor shrinkage, expansion and damage. However, Penn State and DGS decided not to install air conditioning in the gymnasium because of the cost. Accordingly, we find H. Platt to have no responsibility for any and all damage to the flooring caused by these three factors.

Regarding the first factor identified by Mr. Hunt, the evidence presented showed that H. Platt backfilled the areaway in accordance with the plans and specifications. DGS contended that H. Platt installed impervious fill in the areaway, but that under the contract and Contract Drawing A20, H. Platt was required to use a type of permeable gravel specified in Section 02711, Para. 2.4B to backfill the areaway from top to bottom. (Ex. D-14). The Board finds, after reviewing the applicable contract documents, that the specifications and the contract drawings were in conflict. Specifically, the contract drawings show granular or permeable fill from top to bottom being placed in the areaway, while the applicable specification, Section 02711, Para. 3.5 indicates that the areaway was to be backfilled substantially as was done by H. Platt (i.e. placement of a drain pipe, risers to surface drains, gravel and granular material around the drain pipe, topped by an impervious layer of fill). Applicable contract documents also

provide that, in the case of conflict between specifications and contract drawings, the specifications shall prevail. Accordingly, we find that H. Platt backfilled the areaway appropriately as per contract documents. Moreover, our review of the project plans regarding construction of the areaway, the gymnasium walls and the flooring, as well as the alternate backfill method utilizing permeable fill prescribed by DGS leads us to conclude that the original construction of the areaway (with the surface drains leading to six inch drain pipe with the impervious fill top layer) was just as effective, if not more so, in preventing moisture from that areaway from seeping into the gymnasium wall area. Since the areaway fill did not violate any terms of the contract, DGS' requirement that H. Platt remove and replace the fill with gravel was clearly extra work outside the contract, and H. Platt should be paid for that work.

Unlike the improper backfill theory espoused by DGS and its expert, the Board does find that there was adequate evidence presented to establish that H. Platt failed to properly grout the joint between the precast gym wall and the gymnasium foundation; that it failed to do so in contravention of the contract specifications and drawings; and that this failure allowed some measure of moisture to penetrate into and underneath the gymnasium floor, thereby contributing to the damage to the maple wood flooring. However, in light of the other more significant factors damaging the floor identified above, and our finding that only a relatively small amount of moisture could have come through this joint crack and penetrated the vapor barrier under the slab below the wood floor, we find this problem to be only a contributing factor to the damage incurred. The Board rejects DGS' argument that the lack of grout is grounds for a complete denial of payment to H. Platt for the extra work H. Platt had to perform in repairing the floor or removing and replacing the areaway fill. We will, however, deduct 15% of such cost which we find attributable to the grouting issue.

With respect to DGS' second defense to payment, we note DGS' efforts at hearing to demonstrate that H. Platt waived its right to recover the \$16,172.85 due under Change Order #24 and/or the \$44,728.88 for removal and replacement of the areaway fill because, as DGS contends, H. Platt made a binding oral agreement regarding those payments. DGS asserts that if the Board enforces the terms of that agreement, H. Platt will not be entitled to any money from DGS on its claims.

The first issue to be decided with respect to this alleged oral agreement is whether H. Platt and DGS had a binding agreement. More precisely, the issue is whether or not the parties actually had a meeting of the minds on all the material terms. To begin with, no one introduced into evidence a fully executed, written version of this alleged agreement. Moreover, after examination of all the testimony and exhibits, the Board does not find that the parties agreed on several material terms. H. Platt argues that Hunt's testing had to show that the fill in the areaway was the "primary" cause of the floor cracking in order for it to be denied payment for the remainder of Change Order #24 and the areaway work. (N.T. 545). DGS argues that the terms of the agreement were that H. Platt would be reimbursed for Change Order #24 and for the gravel replacement only if the gravel replacement "made no material difference" regarding the environmental conditions in the gymnasium. (Ex. P-66). Since all parties understood at the time that there were likely multiple causes of floor damage and multiple causes of the humidity problems in the gymnasium, the standard or level of causation to determine responsibility for damage repair was a material term of any potential agreement. For example, it remains unclear whether the damage had to be caused by the improper choice of areaway backfill or just by moisture from the areaway. Did this moisture have to be a primary cause of damage to the gym floor; a material cause or any degree of contributing cause at all for H. Platt to be responsible?

Was Mr. Hunt's subjective opinion final or did his report have to establish the cause by an objective standard of review? Accordingly, while it is clear that H. Platt agreed to the testing procedures originally proposed by Mr. Hunt (which testing procedures were not followed by Mr. Hunt) it is also clear to the Board that the lack of clarity on these other points prevent us from finding that an agreement was reached by the parties on this supposed workout arrangement.

H. Platt's removal and replacement of the areaway fill and its repair of the floor, both at DGS' direction, were extra work outside the scope of the contract. H. Platt is entitled to payment in full for these two claims less the portion of the problem the Board has attributed to H. Platt's grouting failure. Accordingly, we find that H. Platt is entitled to \$51,767.75 for this additional work beyond the scope of its contract. See e.g., Paoli, Gramar, A.G. Cullen, Universal, supra.

H. PLATT'S CLAIM FOR COSTS AND ATTORNEY'S FEES

Although H. Platt requests the Board to award it attorney's fees and costs in its standard form prayer for relief contained in its claims filed with the Board, it did not brief this issue, nor argue it extensively at hearing. In any event, the Board found DGS' actions during construction and positions taken with regard to H. Platt's claims on the project to be within the bounds of reason based on contract language and/or recommendation from the project's Professional. Accordingly, we find that H. Platt has not established that DGS acted in an arbitrary, capricious or vexatious manner and will deny H. Platt's claim for attorney's fees and costs. 62 Pa.C.S.A. §§ 3931-3938; DGS v. Pittsburgh Building Company, 920 A.2d 973, 990-991 (Pa. Cmwlth. 2007).

CONCLUSION

For all the foregoing reasons, the Board denies H. Platt's claims for over-excavation and backfill operations behind the retaining wall, for replacement of the fill for the pool pit and for

additional rock excavation expenses. The Board grants judgment in favor of H. Platt on the following claims:

- a. Removing old fill from the site and importing new fill to the site for the area behind the retaining wall in the amount of \$212,875.98 plus \$86,825.30 in prejudgment interest at a rate of 6% per annum from December 18, 2000, for a total of \$299,701.28.
- b. Providing temporary water in the amount of \$64,140.26 plus \$26,160.76 in prejudgment interest at a rate of 6% per annum from December 18, 2000, for a total of \$90,301.02;
- c. Removing excess soil from the site in the amount of \$152,899.11 plus \$62,362.65 in prejudgment interest at a rate of 6% per annum from December 18, 2000, for a total of \$215,261.76; and
- d. Performing extra work in the areaway between the gym wall and the retaining wall in addition to the balance due on Change Order #24 (less adjustment) in the amount of \$51,766.47, plus \$9,567.89 interest at a rate of 6% per annum from September 8, 2004, for a total of \$61,334.36.

ORDER

AND NOW, this 10th day of October, 2007, **IT IS ORDERED** and **DECREED** that judgment be entered in favor of Plaintiff, H. Platt Company, and against Defendant, Commonwealth of Pennsylvania, Department of General Services, in the sum of \$666,598.42 for damages incurred and prejudgment interest thereon. In addition, Plaintiff is awarded post-judgment interest on the total outstanding judgment at the statutory rate for judgments (6% per annum) beginning on the date of this Order and continuing until the judgment is paid in full. Each party will bear its own costs and attorneys' fees.

BOARD OF CLAIMS

OPINION SIGNED

Jeffrey F. Smith
Chief Administrative Judge

Ronald L. Soder, P.E.
Engineer Member