

COMMONWEALTH OF PENNSYLVANIA

P. DiMARCO & COMPANY, INC. : BEFORE THE BOARD OF CLAIMS
 :
VS. :
 :
COMMONWEALTH OF PENNSYLVANIA, :
DEPARTMENT OF TRANSPORTATION : DOCKET NO. 1772

FINDINGS OF FACT

A - THE PARTIES

1. Plaintiff, P. DiMarco and Company, Inc. (hereinafter “DiMarco”) is a duly incorporated Pennsylvania Corporation, with its principle place of business at 131 East Church Road, King of Prussia, Pennsylvania. (Plaintiff’s Complaint and Defendant’s, para. 11)

2. DiMarco is an experienced paving contractor, performing site work, excavation, utilities, drainage work and bituminous paving pursuant to public and private contracts within Pennsylvania. (N.T. 12-13)

3. DiMarco has performed more than 100 projects under PaDOT jurisdiction. (N.T. 13)

4. Defendant, Commonwealth of Pennsylvania, Department of Transportation (hereinafter “PennDOT”) is an administrative agency of the Commonwealth of Pennsylvania. (Plaintiff’s Complaint and Defendant’s Answer, para. 2)

B - THE PARTIES’ REPRESENTATION

5. Wayne DiMarco is an employee of DiMarco, and was responsible for overseeing the execution and performance of the Project. He was a part of the team that estimated the job and checked the final bid estimate before the bid went out. (N.T. 14)

6. On cross, Mr. DiMarco testified that he was on the Project site about 5 days during the Project’s construction, but could not state what 5 days he was there. (N.T. 88-89)

7. Mark Deluzio was DiMarco’s paving foreman for the Project. At the time of the Project, Mr. Deluzio had approximately 13-14 years of experience in the blacktop paving field. (N.T. 125-127)

8. Highway Materials, Inc. (“HMI”) was DiMarco’s bituminous material supplier for the Project. Rich Sonnon was HMI’s certified asphalt technician assigned to the Project. (N.T. 103-106)

9. Larry D. Hoffman was PennDOT’s Assistant Construction Engineer (ACE) for Engineering District 8-0, Mr. Hoffman’s duties included inter alia ensuring that the contract was implemented and performed in accordance with the Contract documents and specifications. It was also Mr. Hoffman’s duty to review all correspondence concerning the Project. (N.T. 297-300)

10. Standard PaDOT procedure is to record Mr. Hoffman’s presence on the Project site by listing him as an official visitor in the Project’s Master Diary on each day that he is present. (N.T. 355-356)

11. According to the PaDOT Master Diary for the Project, Mr. Hoffman visited the site only 10 times during the project. (exhibit P-8 at following entries: 7/14/93; 8/13/93; 8/18/93; 8/31/93; 9/7/93; 9/15/93; 9/30/93; 10/20/93; 11/17/93; 11/24/93).

12. Mr. Hoffman, PennDOT’s only witness, admitted his personal observation of DiMarco’s operations was limited to approximately 15.5 hours and that he never visited the Project site on a Saturday or Sunday. (N.T. 360-365)

13. Robert Jacenko was the PaDOT Project Manager and the designated Inspector-in-Charge assigned to the Project. (N.T. 298; Exhibit P-8)

14. Paul Eberly was the PaDOT Project Supervisor assigned to the Project. (N.T. 298)

15. Lynn L. Ramsey was a PaDOT inspector on the Project. (N.T. 298; Exhibit P-8)

16. M. W. Gramling was a consultant inspector employed by PaDOT on the Project. (N.T. 298; Exhibit P-8)

17. Steven Leighton was a consultant inspector employed by PaDOT on the Project. (N.T. 298; Exhibit P-8)

18. Bharat A. Pandya was a consultant inspector employed by PaDOT on the Project. (Exhibit P-8)

19. Joe Miriello was consultant inspector for PaDOT on the Project. Mr. Miriello was stationed at HMI's bituminous materials plant and was responsible for, inter alia, informing Mr. Sonnon when PaDOT released the materials for paving so that they could be shipped to the Project site. (N.T. 106, 108)

C - PRE-BID ACTIVITIES

20. The 1990 edition of the Publication 408 Specifications (hereinafter "Publication 408-90") is a part of the Contract for this Project. (P-1, pg. 4)

21. The Contract contains Section 102.05 of the Publication 408-90 entitled "Examination of Proposed Forms, Plans, Specifications, Special Provisions and Site of Work" which reads as follows:

102.05 EXAMINATION OF PROPOSALS FORMS, PLANS, SPECIFICATIONS, SPECIAL PROVISIONS, AND SITE OF WORK -- The Department's plans and specifications are complete and are prepared so any competent contractor is able to complete the proposed work. The bidder is required to carefully examine the proposal forms, plans, specifications, and project site before submitting a proposal. The submission of a proposal will be considered proof that the bidder has made such examination and understands the conditions to be encountered; the character, quality, and quantities of work to be performed; the material to be furnished; and the requirements of the plans, specifications, and proposal form. The Department will make no allowance or concession for a bidder's failure to make the required examination.

The proposed slope lines shown on the cross sections are approximate and are subject to revision and change by the Engineer, depending upon the stability of material encountered during construction.

Subsurface soil and geological information indicated is based upon soundings, dug test pits, and/or test borings. Such information concerning the character of subsurface material is of a preliminary nature and has been obtained for the exclusive use of the Department to aid in the project design. Do not consider any of the data supplied or made available to you by the Department or its authorized agents as positive representations of any of the conditions that you will encounter in the field. This information is not a part of the plans, proposal, or contract and is not to be considered a basis for

computation of the unit prices used for bidding purposes. There is no expressed or implied agreement that the depth or character of the material has been correctly indicated or that uniformity of material exists between the explored locations. The bidder is not to rely on this information, but is to assume the possibility that conditions affecting the cost and/or quantities of work to be performed may differ from those indicated.

Time estimates for the placement, replacement, relocation, adjustment and reconstruction of public and private facilities and structures on, under, or over the project and waste and borrow areas not on the project before and during the performance of project work have been provided only for informational purposes. The Department does not warrant the accuracy of the time estimates. Bidders should verify this information by contacting the owners of the facilities and structures. These time estimates are not to be considered a part of the bid proposal.

22. PaDOT did not perform a subsurface investigation of the roadways within the Project limits. (Plaintiff's Interrogatories directed to Defendant (First Set) No. 1 and PaDOT's answer thereto).

23. At all times prior to bidding, PaDOT maintained traffic on S.R. 1010, Section 002, PaDOT did not make any provisions to halt or detour traffic to enable contractors to perform any investigation of the subsurface conditions beneath the roadway. (Complaint & Answer, para. 7)

24. Mr. Hoffman, on cross, admitted that there is no information contained in the plans and drawings respecting the existing condition under the roadway and that he is not aware of any process or procedure available to prospective bidders to shut down a state highway. (N.T. 400)

25. The Plaintiff at no time prior to bid requested PaDOT to halt or detour traffic in order that it could conduct subsurface investigations. (N.T. 270)

26. Mr. Robert DiMarco testified that Plaintiff did not conduct an investigation of the subsurface conditions based on his experience, a "reasonable investigation" on a job of this nature would not include an investigation of the subsurface conditions. (N.T. 269)

D - THE PROJECT

27. On or about June 11, 1993, DiMarco and PaDOT entered into Contract No. 087254 for the improvement of a certain section of state highway in Lancaster County, Earl and East Earl Townships and Terre Hill Borough (State Route 1010, Section 002)(“Contract” or “Project”), for the principal contract sum of \$677,648.35. (Exhibit P-1)

28. The Contract plans and drawings, and all terms and conditions of the Contract, were prepared and drafted by PaDOT and its agents. (Complaint & Answer, para. 4; N.T. 398)

29. The Contract provided for the reconstruction and resurfacing of bituminous pavement, drainage improvements, base repair and the installation of related materials and performance of associated work. (Exhibit P-1)

30. The Contract further provided that all work was to be completed within 91 calendar days after issuance of the Notice to Proceed. (Exhibit P-1)

E - PROJECT PHASING

31. Pursuant to the contract, the Project was divided into two phases, representing two separate areas of road reconstruction within the project area. (Exhibit P-1)

32. The Contract plans contained a very detailed “Traffic Control Plan for Item 0901-0001 - Maintenance and Protection of Traffic During Construction” (hereinafter “Traffic Control Plan”). Special provision of the Contract contain additional project specific requirements for the maintenance and protection of traffic during construction. (N.T. 45-46; P-1, pg. 44-45; P-2, 3 sheets of Traffic Control Plan)

33. The phasing was designed to permit two different sections of the highway to be closed (at different times) to permit the reconstruction of those portions of the road, and related drainage improvements. The intervening portions of the project that entailed only widening and resurfacing were not subject to the project phasing nor closed to traffic. (Exhibit P-2, sheet 3 of 23, sheets 1-3 of 3 of Traffic Control Plan)

34. Phase I of the Project was from stations 98+00 to 104+00, and provided for the reconstruction of that area of the project to remove a “hump” in the road. (N.T. 16; Exhibit P-2, sheets 11-12 of 23; 3 of 3 of Traffic Control Plan)

35. The Contract permitted the Contractor 20 calendar days to close the road in the Phase I area and to complete the Phase I work. Road user liquidated damages were assessable in the amount of \$1,000 per day for each day that the Phase I area was closed to traffic beyond the 20-day period. (Exhibit P-1, pp. 44-45; 29)

36. Pursuant to the contract specifications and the Traffic Control Plan, Phase I was designated as *closed* to through traffic for the 20-day period, with Type III barricades extending across the roadway on each side of the closed section of the road. (Exhibit P-1, pp. 44-45; Exhibit P-2, sheet 3 of 3 of Traffic Control Plan)

37. Special Provision maintenance and protection of traffic during construction Item 0901-0001 reads in part as follows:

“Maintain two lanes of traffic for the life of this project with the following execution:

- One lane may be maintained during working hours.
- Close S.R. 1010 from Station 98+00 to Station 104+00 (phase 1) to through traffic for 20 calendar days.
- Close S.R. 1010 from Station 732+00 to Station 758+64 (phase 2) to through traffic for 43 calendar days.

Road users liquidated damages as specified in the special provisions will be charged when S.R. 1010 is not open to through traffic as specified above. Do not begin Phase II work until Phase I construction is completed and all detour signing is removed. . .” (P-1, pgs. 44 and 45)

38. The Contract did not require that one lane of the road within the Phase I area be maintained open at all times during the period of road closure. (Exhibits P-1 and P-2)

39. Phase II of the Project was from Stations 732+00 to 758+64 (or the end of the Project limits). (Exhibit P-2, sheets 16-19; 1-2 of Traffic Control Plan) Phase II was comprised of the removal of two small bumps in the road, road construction, and the majority of the drainage work on the Project. (Exhibit P-2; N.T. 16-17)

40. The Contract permitted the Contractor 43 calendar days to close the road in the Phase II area to complete the Phase II work. Road user liquidated damages were assessable in the amount of \$1,000 per day for each day that the Phase II area was closed to traffic beyond the 43-day period. (Exhibit P-1, pp. 44-45; 29)

41. Pursuant to the contract specifications and the Traffic Control Plan, Phase II was designated as ***closed*** to through traffic for the 43-day period, with Type III barricades extending across the roadway on each side of the closed section of the road. (Exhibit P-1, pp. 44-45; Exhibit P-2, sheets 1-2 of 3 of Traffic Control Plan)

42. There is no contract provision requiring that one lane of the road within the Phase II area be maintained at all times during the period of road closure. (Exhibits P-1 and P-2)

43. The Contract contains Section 901.3(e) of Publication 408-90 entitled “Maintenance and Protection of Traffic During Construction” which reads as follows:

“(e) Local Traffic Maintenance and Safety. Proceed with the work to insure safety and the least inconvenience to local traffic. Maintain local traffic ingress and egress by use of existing or new roadways.

Provide and maintain local access to and from the nearest intersecting public road or street, unless otherwise directed. As directed, provide temporary approaches for local vehicular and pedestrian access to and from commuter service, residential, business, industrial, and other public and private facilities.

Also, provide and maintain adequate bridging over base and surface courses, trenches, or other construction, when directed.”

44. The Project plans and drawings, which were incorporated within and made a part of the Contract, provided that no subbase material would be needed for reconstruction between stations 98+00 and 104+00. (Exhibit P-2, sheet 3 of 23)

45. Phase II work could not begin until Phase I construction was completed and all detour signing removed. (Exhibit P-1, p. 45)

D - DiMARCO’S PLAN FOR DOING THE WORK

46. Wayne DiMarco analyzed and planned DiMarco’s prosecution of the work. In doing so, Mr. DiMarco analyzed and referred to PaDOT’s D476 project schedule incorporated in the Contract. (N.T. 19)

47. PaDOT’s D476 schedule ***did not*** take into consideration the phasing restrictions of the Project as evidenced by the following:

- (a) The D476 anticipated Phase I earthwork operations beginning on calendar day 17. (N.T. 26, Exhibits P-1 & P-5)
- (b) Based on the D476, Phase I would not be completed until day 37 (Phase I work commencing on day 17 (earthwork) with a 20 calendar day duration for Phase I work to be completed). (N.T. 26; Exhibits P-1 & P-5)
- (c) The D476 contemplated that on calendar day 37, DiMarco could proceed with Phase II work. (Exhibits P-1 & P-5)
- (d) All subbase on the project was located in the Phase II project area. (N.T. 26; Exhibits P-1 & P-5)
- (e) The D476 anticipated beginning subbase operations on calendar day 43 from the date of the notice to proceed. (N.T. 26; Exhibits P-1 & P-5)
- (f) As the D476 anticipated subbase construction commencing on day 43, DiMarco would have *only* six Calendar days to perform *all* drainage work in Phase II. (N.T. 26-27; Exhibits P-1 & P-5)
- (g) The drainage work included the construction of four 18" cross pipes and one 60" cross pipe in Phase II; the construction of these drainage pipes would require more than 6 days to excavate, install, and grade. (N.T. 27; Exhibits P-1 & P-5)
- (h) PaDOT's D476 failed to account for the required durations of the drainage work. (N.T. 27; Exhibits P-1 & P-5)

48. To accommodate the project phasing, and address PaDOT's scheduling error, DiMarco's plans were to shift the Phase I work to the very beginning of the job, in order to open up the entire project area as soon as possible. (N.T. 27; Exhibit P-4)

49. DiMarco's plan of the work divided the Project up into two areas, designated as Area I and Area II. Area I of the project was between the beginning of the Project, Station 95+27 and Station 677+00 which included PaDOT's Phase I area of the Project. In addition to the reconstruction, Station 98+00 to Station 103+00, specified as Phase I, DiMarco's Area I included drainage work and widening and resurfacing on both sides of the reconstruction. (N.T. 17-18; P-2, sheets 11 and 13)

50. Area II of the Project was between stations 709+00 and 758+64 (end of project), and included therein Phase II of the Project. In addition to the reconstruction, and drainage work comprising Phase II of the Project, DiMarco's Area II designation included other drainage work and widening and resurfacing work (there was no contract work between stations 677+00 and 709+00 of the Project). (N.T. 17; Exhibit P-2)

51. DiMarco planned to perform the Phase I work first, in order to remove the limitations imposed by PaDOT's phasing requirements as quickly as possible, thereby permitting DiMarco access to the Phase II work, which contained the bulk of the drainage and road reconstruction work on the Project. (N.T. 26-28; Exhibit P-4)

52. DiMarco intended to mobilize for the project prior to the anticipated notice to proceed on Monday, June 21, 1993 and to begin construction activities on June 28, 1993 by starting Class 1 excavation in Phase I. (N.T. 28-29; P-4)

53. DiMarco planned to do the work different than that which was shown in the D-476, but did not formally submit a revised written schedule to PaDOT. (N.T. 30)

54. Wayne DiMarco testified that PaDOT was informed about how DiMarco planned to execute the work and there was no disagreement. (N.T. 30-31)

E - PHASE I CONSTRUCTION

55. Notice to proceed was issued by letter dated Friday, June 18, 1993 with an official notice to proceed with construction operations on Monday, June 28, 1993. (N.T. 28 and Complaint, para. 12; Answer, para. 12)

56. DiMarco began physical mobilization activities on Friday, June 25, 1993. (N.T. 28).

57. Despite its directed notice to proceed on June 28, 1993 and its inclusion of all calendar days thereafter in its calculation of the duration of the Project, PaDOT directed DiMarco to keep the entire roadway opened and nonconflicting with traffic for the July 4th weekend. (emphasis added) (N.T. 29-30; Exhibit P-8, p. 13)

58. DiMarco could not begin its Phase I reconstruction before Tuesday, July 6, 1993 due to PaDOT's directive to maintain an open roadway during the holiday weekend. (N.T. 29-30)

59. PaDOT did not grant DiMarco an extension of time to account for PaDOT's directive to maintain an open roadway during the July 4th holiday weekend. (N.T. 30)

60. Mr. Hoffman, PaDOT's *only* witness, testified that he had no personal knowledge of whether PaDOT directed DiMarco to maintain an open roadway for the July 4th weekend. (N.T. 383)

61. DiMarco closed Phase I to traffic and began excavation on Tuesday, July 6, 1993. (Exhibit P-9)

62. On or about July 13, 1993, soft areas appeared in the subgrade and that these areas would have to be addressed prior to a final grading. (N.T. 31-32; P-8, part I, p. 27)

63. There was no indication in any of the contract drawings and/or bid documents that soft or unstable areas were likely to be encountered on the project. (N.T. 32)

64. PaDOT, through its resident engineer Mr. Eberly, immediately, orally directed DiMarco to undercut and remove and replace the unstable material. (N.T. 32)

65. The contract documents did not anticipate undercutting "soft spots" encountered in the subgrade; therefore, PaDOT's directive constituted extra or additional work necessitating a written directive from PaDOT. (N.T. 34; Exhibit P-1)

66. DiMarco requested written directive from PaDOT to confirm the oral directive to perform the extra work of undercutting and removing the soft spots which DiMarco viewed as a pre-existing condition. PaDOT did not issue this written directive. Instead PaDOT directed DiMarco to work and rework the subgrade to achieve compaction of the unstable soft subgrade. (N.T. 32-34)

67. DiMarco followed PaDOT's direction and aerated and scarified the subgrade in an attempt to reach proper compaction, but compaction could not be achieved utilizing these methods. (N.T. 34)

68. After DiMarco's aeration and scarifying methods, which PaDOT directed, were unsuccessful in achieving appropriate compaction, PaDOT again directed DiMarco to undercut and stabilize the soft areas. (N.T. 36)

69. To keep the project moving toward completion, DiMarco complied with PaDOT's directives, undercut the soft spots, placed geotextile fabric to stabilize the subgrade, placed ballast stone to hold the fabric in place, and placed suitable earthen material on top. (N.T. 36)

70. There is no contract item for stabilizing subgrade, the placement of geotextile fabric or ballast stone for work in Phase I or Phase II. (Exhibit P-1)

71. Due to PaDOT's initial refusal to issue a written directive to DiMarco to remove and replace the soft subgrade materials, subsequent directive to "work the subgrade" and eventual directive to undercut and stabilize the subgrade, DiMarco's Phase I work was significantly delayed.

72. DiMarco did not receive any compensation for undercutting and removal of the soft subgrade material or for the placement of the geotextile fabric and stone that was required to successfully stabilize the subgrade prior to placement of the roadway structure. (N.T. 44)

73. Phase I work was completed and open to traffic on July 26, 1993. DiMarco did not receive a contract time extension for the impacts associated with the Phase I work on the Project. (N.T. 448; D-1(9))

F - CROSS PIPES IMPACT PHASE I AND PHASE II

74. Within the Phase I and Phase II areas of the project were multiple cross pipes which were to be installed and connected to existing inlets on either side of the cartpath. (N.T. 46; Exhibits P-1 and P-2)

75. The Traffic Control Plans for the Project represented that the Phase I and Phase II areas would be closed to through (emphasis added) traffic for 20 and 43 days respectively. (N.T. 46-48; P-2)

76. Publication 408-90, Section 901.3 requires in part that the contractor: "Maintain local traffic ingress and egress by use of existing or new roadways. Provide and maintain local access to and from the nearest intersecting public road or street, unless otherwise directed." (D-45)

77. Based upon the Traffic Control Plan which was incorporated into the Contract and Publication 408-90 Section 901.3, Wayne DiMarco testified that DiMarco's plan was to install one entire cross pipe in one continuous operation; dig the trench, place the pipe and completely backfill the trench; then move to the next cross pipe location while maintaining access to and from local resident's homes, but not accommodating through traffic. (N.T. 46-48)

78. DiMarco's planned method of operations regarding the placement of the cross pipes conformed and was otherwise in compliance with the Contract requirements. (Exhibits P-1, P-2)

79. PaDOT directed DiMarco to maintain one lane of the road open at all time to facilitate local traffic and emergency vehicles, and to install the cross pipes in ½ sections, notwithstanding the information contained in the Traffic Control Plans that the road was to be closed, with Type III barriers extending across the roadway. (N.T. 49, 411; Exhibit P-10)

80. Mr. Hoffman testified that PaDOT informed DiMarco that “the project had to remain open to through traffic and ingress and egress had to be provided for the residents.” (N.T. 332)

81. All cross pipes with the exception of the 60" pipe at Station 733+66 were placed in ½ sections as directed by PaDOT. This PaDOT directed method of installing 18" RCP cross pipes substantially increased DiMarco’s direct labor and equipment costs above the costs of DiMarco’s planned methods of full width installation. (N.T. 50-51, 55-56, 99)

82. DiMarco did not receive additional compensation for the increased costs associated with PaDOT’s directed method of operations for the placement of all 18" RCP cross pipes on the Project. (N.T. 55)

83. DiMarco did not receive an extension of contract time for the time impacts associated with PaDOT’s directed method of operations for the placement of the cross pipes on the Project. (N.T. 55)

G - UTILITY CONFLICTS WITH CROSS PIPE PHASE II

84. On or about August 19, 1993 DiMarco encountered utility line conflicts while trying to install 18" RCP crosspipe at Station 753+40. (N.T. 52-53; P-2, sheet 19)

85. PaDOT prepared cross section drawings for the project which were distributed to the prospective bidders, including DiMarco, for purposes of bidding the Project. The information shown on the cross sections regarding the elevation of the utilities was obtained by PaDOT from the utility owners. (N.T. 52)

86. Pages 25 of 40 and 34 of 40 of the roadway cross sections show the placement of the 18" RCP cross pipe at station 748+50 and 753+50 respectively. At station 748+50 the 18" RCP cross pipe is shown underneath an existing 4" C.I. water line without any conflict and at Station 753+50 the 18" RCP cross pipe is shown underneath an existing 4" sewer line. (N.T. 52-53; P-11)

87. The actual field conditions at station 753+50 differed from the contract cross sections in that the placement of the 18" RCP cross pipe at the designated elevation conflicted with the existing sewer line at its actual elevation. (N.T. 53)

88. DiMarco informed PaDOT of the utility conflicts and requested direction on how to proceed. After waiting about half a day, PaDOT directed DiMarco to “notch out” a section of the 18" cross pipe and “fish” it beneath the existing utility pipe. This required DiMarco to then place a concrete collar where the two pipes cross each other at both station 748+50 and 753+40. (N.T. 53; P-12)

89. The work performed by DiMarco in conforming the placement of the cross pipes with the actual field conditions and accommodating conflicts in the existing utility elevations was not part of DiMarco’s scope of work. (N.T. 413)

90. DiMarco did not receive an extension of contract time, or any additional compensation for the work it performed to overcome the conflict between the elevations depicted in the cross sections and the actual field conditions. (N.T. 55, 413)

H - PHASE II UNSTABLE SUBGRADE

91. While DiMarco was excavating the upper end of the job, approximately station 745 to station 758, soft subgrade areas were again encountered similar to Phase I soft subgrade. DiMarco immediately informed PaDOT of the soft areas and informed them that it could not undercut these soft areas because of shallow utilities in the immediate area. (N.T. 57)

92. DiMarco suggested the placement of geotextile fabric, along with ballast stone to secure it in place, as had been done in the Phase I area, in order to bridge the soft areas without interference to the existing utility lines. (N.T. 60)

93. PaDOT directed DiMarco to undercut the soft areas, notwithstanding the location of the utilities, but refused to provide DiMarco with a written change order directing such extra work. (N.T. 58)

94. As DiMarco was already behind schedule as a result of the previous impacts in the Phase I area, DiMarco complied with PaDOT’s directive and began undercutting the soft areas. (N.T. 58-59)

95. DiMarco, during its excavating activities, broke the water utility’s service line due to its close proximity to the soft areas being undercut. (N.T. 58-59; Exhibit D-1, p. 39)

96. DiMarco again requested direction from PaDOT on how to proceed. Time was critical as DiMarco was beyond the 43 calendar days permitted for the Phase II work, with road user liquidated damages being assessed daily. (N.T. 59; Exhibit D-1, p. 39)

97. PaDOT directed DiMarco to backfill the excavated areas, while it considered the use of geotextile fabric to stabilize the soft areas. (Exhibit D-1, p. 39)

98. After meeting with the geotextile fabric supplier, PaDOT issued a written directive to DiMarco to use geotextile fabric to bridge the soft areas. (N.T. 60, 404)

99. DiMarco immediately ordered the fabric, per PaDOT's direction, but was not permitted to place it as a result of several days of rain. (N.T. 60)

100. After the affected area dried out, DiMarco requested permission from PaDOT to place the geotextile fabric in the entire affected area. PaDOT informed DiMarco that they were permitted to place the geotextile fabric only on a portion of the affected area. PaDOT offered no explanation as to why DiMarco was not permitted to place the fabric in the entire affected area. (N.T. 61)

101. DiMarco could have placed the fabric, and the necessary stone to hold it down, over the entire affected area in one day. (N.T. 62)

102. While PaDOT representatives were present and observing, DiMarco placed the geotextile fabric and ballast stone in the area designated by PaDOT. (N.T. 64)

103. The day following the placement of the fabric and stone, PaDOT, without explanation, directed DiMarco to remove the stone placed on top of the fabric. (N.T. 62-64)

104. Thereafter, PaDOT permitted DiMarco to place geotextile fabric *and stone* over the entire affected area. (N.T. 64)

105. Mr. Hoffman testified that the placing of the fabric and stone in the Phase II areas of the Project constituted extra work. (N.T. 404-405)

106. PaDOT did issue a change order for the fabric and its placement, but did not compensate DiMarco for the reworking of subgrade, soft area undercut that PaDOT directed or the backfilling prior to fabric installation. (N.T. 66-67)

107. PaDOT did not grant DiMarco an extension of contract time as a result of the soft subgrade in Phase II of the Project. (N.T. 67)

I - REMOVE AND REPLACE BITUMINOUS PAVING

108. On cross, Mr. Hoffman admitted that there was an entry in the diary that the rolling pattern established by DiMarco was approved by PaDOT's representative on site. But Mr. Hoffman stated that there was no documented indication that there was a test strip involved. (N.T. 378-379)

109. Mr. Hoffman admitted that he had no personal knowledge regarding a test strip and he never read any diary entries that stated that a test strip was not placed by DiMarco for an approval rolling pattern. (N.T. 379-380)

110. On August 4, 1993, DiMarco paved from station 95+27 to station 111+90 with an ID-2 wearing course. (Exhibit P-26, p. 8; Exhibit P-9)

111. Nuclear in-place density testing performed by E. L. Conwell confirmed that the ID-2 wearing course placed complied with the contractual requirements for compaction. (Exhibit P-14; N.T. 69-70)

112. Samples taken and tested by HMI, confirmed that the ID-2 material placed on August 4, 1993 complied with the contractual requirements for compaction. (Exhibit P-21; N.T. 112-113)

113. The project was laid out in lots and sublots for sampling of ID-2 paving material and since DiMarco stopped paving and moved to Phase II only one core sample was taken on August 4, 1993 from the main line in this area to determine compliance with contractual compaction specification for ID-2. (N.T. 74, 310-311)

114. The shoulder area of the roadway was less than four feet wide, outside the limits of RPS and exempt from the coring requirements of the Contract. (N.T. 71, 194, 375-377; Exhibit P-2, sheet 3 of 23; Exhibit P-1, revised section 401.3(i)2 of Publication No. 408 Specifications)

115. The core samples taken by Highway Materials, Inc. were taken from the area immediately adjacent to where PaDOT retrieved its core sample. (N.T. 110-111)

116. PaDOT representatives who were present observed and recorded the results of Highway Materials, Inc.'s testing of the core samples retrieved. (N.T. 120-121; Exhibit P-22)

117. The sole core sample taken by PaDOT from the main line roadway was collected on August 4, 1993, but not shipped for testing until August 26, 1993. (Exhibit P-15; Complaint and Answer, para. 56; N.T. 74)

118. On direct, Mr. Hoffman established that this one core was retained in the field office pending resumption of paving since they normally send an entire lot for testing. (N.T. 312)

119. PaDOT maintained that from the time taken until the time shipped for testing (approximately 22 days), PaDOT stored the core in the field office trailer. (Complaint and Answer, para. 54)

120. Mr. Hoffman testified that he had no personal knowledge of how PaDOT handled the test core, or whether PaDOT had exposed it to significant fluctuations in ambient room temperature during storage or otherwise. (N.T. 370-371)

121. PaDOT rejected the materials placed in the main line roadway based solely on the single core sample taken on August 4, 1993 by PaDOT representatives.

122. On cross Mr. Hoffman admitted that exposure of test cores to real hot air temperatures could effect them. Hr. Hoffman also testified that he had no personal knowledge of how PaDOT handled the test core or whether it had been exposed to significant fluctuations in ambient room temperature during the 22 days in storage prior to testing. (N.T. 365-366, 370-371; P-8; P-15)

123. PaDOT offered no evidence regarding how it stored the test core in question to protect the integrity of the sample prior to testing. (Record)

124. Mr. Hoffman admitted that PaDOT's test results of the density of the core sample was *consistent* with the density of *unrolled* or *minimally rolled bituminous material*, and *inconsistent with material which tested 92% to 94% theoretical by nuclear gauge testing*; the sample however was taken from an area which had been rolled by DiMarco and inspected by PaDOT, and which tested greater than 93% theoretical by nuclear gauge testing performed by E. L. Conwell. (N.T. 372-373, 69-70, 72-73; Exhibits P-14 & P-15)

125. DiMarco was directed to remove and replace the ID-2 wearing course placed on the main line roadway from stations 95+27 to 111+90 based upon PaDOT's single core test results. (Exhibit P-17)

126. As permitted by Section 401.3(r) Publication 408-90, DiMarco requested PaDOT to retest the cores, but they refused to do so. (N.T. 436; P-16 & P-17; D-41)

127. DiMarco removed and replaced the ID-2 wearing course placed from stations 95+27 to 111+90. (N.T. 76)

128. DiMarco received no additional compensation or contract time extension for the remove and replace work performed from stations 95+27 to 111+90. (Exhibits P-16, P-17, D-16)

J - PAVING IMPACTS

129. The paving on the project required two different treatments, depending on whether the road was being reconstructed, or whether it was being widened and resurfaced. In the areas where the road was being reconstructed, a 5" Bituminous Concrete Base Course (hereinafter "BCBC") was placed first, followed by a 2" ID-2 binder course, and finished with a 1½" ID-2 wearing course (or top coat). Where the road was widened and resurfaced, BCBC was placed on the shoulder areas to bring it level with the existing roadway, followed by ID-2 binder course on the entire width of the road and finished with ID-2 wearing course. (N.T. 129)

130. The Contract contained Item No. 0421-0505, 2883 ton bituminous binder course ID-2, leveling course. The tabulation of roadway quantities listed the location and estimated tonnage of ID-2 leveling required in Widening & Resurfacing Areas in both DiMarco's Area I and Area II. (P-1, pg. 9; P-2, sheet 5 of 23)

131. The Contract plans sheet 3 of 25 contain sketches showing the methods for build-up for dip removal and super elevation build-up referenced under "Remark" on the tabulation of quantities sheet 5 of 23 for ID-2 leveling. Mr. Deluzio established that DiMarco was required to place this leveling in Area II to reprofile the existing road. (N.T. 177-178; P-2, sheets 3 & 5 of 23)

132. Throughout the course of the placement of bituminous paving, BCBC; ID-2 Binder and ID-2 surface courses, inspectors employed by PaDOT continuously interrupted DiMarco's paving operations to correct what PaDOT perceived to be "low spots in the roadway." (N.T. 132-147)

133. Mr. Deluzio testified that PaDOT's onsite representatives, and specifically Robert Jacenko and Paul Eberly, substantially interfered with and controlled the manner and method of DiMarco's paving operations which resulted in a loss of productivity, increased costs, and delay in project completion. (N.T. 125-174, 191-198)

134. Pursuant to Section 401.3(k) of the applicable publication whenever the Engineer suspects an area is deficient or irregular, a 10-foot straight edge is to be used to determine whether any correction is required. Only those areas containing irregularities of more than 3/16" need corrected. (N.T. 137)

135. Mr. Deluzio testified he was unable to confirm the existence of any low spots, out of specification, with his own 10-foot straight edge. At no time did PaDOT confirm that any perceived irregularities existed by using the required 10-foot straight edge. (N.T. 135-137, 141)

136. On direct Mr. Deluzio testified that a few times PaDOT inspectors use a string line, but he was never able to tell whether or not an area was low. (N.T. 136-137, 141)

137. While DiMarco was correcting the areas PaDOT perceived to have “low spots,” DiMarco’s paving equipment and material trucks were on site, with bituminous material, remaining idle. (N.T. 137)

138. When DiMarco questioned the existence of low spots or PaDOT’s directive to apply a scratch coat, PaDOT replied “You do what we tell you to do.” (N.T. 144)

139. Mr. Deluzio testified that PaDOT’s continual interruptions of DiMarco’s paving operations to stop and correct perceived, but unverified low areas with a “scratch” course adversely impacted DiMarco’s production, resulting in increased time and cost to DiMarco. (N.T. 146)

140. DiMarco did not receive any compensation for the application of the scratch coat to any of the perceived low spots. (N.T. 146)

141. At the end of each paving day, PaDOT directed DiMarco how to end a paving pass. Mr. Jacenko required DiMarco to place roofing paper at the end of the joint, turning it up against the joint. Prior to placing the roofing paper, DiMarco was required to place sand or dirt on the binder to prevent the roof paper from sticking. On top of the roofing paper, DiMarco was directed to place bituminous material, forming a ramp type area against the joint. The next day DiMarco was to slide its backhoe bucket underneath the roofing paper across the joint and remove the previously placed material, leaving (in theory) a nice clean joint to recommence paving. (N.T. 155)

142. Publication 408-90 Section 401.3(j) transverse joints, which is a part of the Contract, read in part “For wearing and binder courses, construct the paving notch and/or transverse joints on a 6" skew and compact to provide a smooth riding surface. For other courses construct joints perpendicular. Joints may be sawed. Straight edge joints to assure smoothness. If a bulkhead is used, install it straight and perpendicular to the surface.” (D-41, p. 152)

143. DiMarco had intended to use doubled-up paving rope bulkhead to leave 1½” elevated edge which would be saw cut back the next day leaving a straight, clean transverse joint edge. (N.T. 154)

144. Mr. Deluzio testified that DiMarco's planned method would take approximately 10 minutes each morning before paving was to start. (N.T. 154)

145. Mr. Deluzio testified that Bob Jacenka, PaDOT's Inspector-in-Charge, directed DiMarco to place sand or dirt at the joint on existing binder with rooting paper on top. This was suppose to just slide out in the morning when the backhoe lifted it up. (N.T. 155)

146. PaDOT's directed method did not work; the backhoe was not able to remove the paper and material evenly, thereby requiring the edge to be saw cut, as originally planned by DiMarco. (N.T. 155-156)

147. PaDOT also required DiMarco to chip the binder in place with a backhoe to remove the sand or dirt previously placed (at PaDOT's direction) because, according to PaDOT, it had "contaminated the binder." (N.T. 157)

148. Rather than taking 10 minutes under DiMarco's planned method, PaDOT's directed method took over an hour each day that paving was required. (N.T. 157-158)

149. PaDOT controlled the release of bituminous paving material from the approved material supplier which was located approximately 45 minutes to 1 hour travel time away from the Project. (N.T. 108, 159)

150. Mr. Deluzio would request a release each day when he arrived at the work site, between 6:15 and 6:30 a.m. (N.T. 158)

151. A PaDOT inspector from the Project would call the material plant and authorize the shipment of material on a daily basis. Materials were not permitted to be shipped until specifically authorized or "released" by the PaDOT inspector. (N.T. 107-108, 159)

152. PaDOT refused to give DiMarco releases at the times DiMarco requested. Some of PaDOT's stated reasons for withholding the releases included the following:

- (a) the joints were not cut or cleaned properly.
- (b) core were not yet taken and in trailer from the previous day's paving.
- (c) it was too foggy out, DiMarco was unable to obtain a release at the times requested.

(N.T. 158-160)

153. DiMarco maintained a paving operator at the Project site at 6:00 a.m. every day that paving operations were ongoing, with the paver running and in place. (N.T. 158)

154. PaDOT's refusal to release the materials when requested adversely impacted DiMarco's productivity regarding the paving operations on the Project. (N.T. 160)

K - ROLLED CURB

155. DiMarco was also required to place a "rolled curb" throughout the project by allowing the paver to "spew out" bituminous material along the edge of the road, and then hand form the curb until it met with PaDOT's inspector's visual approval. (N.T. 148)

156. Mr. Hoffman, on direct, testified that it was his opinion that on sheet 3 of 23 of the Contract Plans, upper left-hand corner, typical section-widening and resurfacing, that an 8" wide area to the right of the edge of the 3-foot shoulder "is an extension of the shoulder pavement up on to the slope which is rolled up in order to provide proper protection for the slope and cut area." (N.T. 346-347)

157. Mr. Deluzio testified that the typical section on sheet 3 of 23 of the Contract Plans do not contain any wording or reference to "rolled curb." He established that the asterisk under the right 8" dimension on the typical section widening and resurfacing denotes "slope 2:1 or flatter-see x-sections" in the legend.

158. Mr. Hoffman admitted during his testimony that the placement of rolled curb in some areas was extra work, but had no explanation as to why DiMarco was not compensated for the extra work. (N.T. 419)

159. At trial, there was no evidence presented that Publication 408-90 contract specifications contain a section for "rolled curbs." (Record)

160. Mr. Jacenko, PaDOT's Inspector in Charge, directed DiMarco to place rolled curb throughout the Project. (N.T. 147)

161. Mr. Jacenko informed Mr. Deluzio that rolled curbs were required by the Contract, and that if they were not placed by DiMarco, DiMarco could not continue the job. (N.T. 152)

162. The placement of rolled curbs adversely impacted DiMarco's paving production on the Project. (N.T. 153)

163. DiMarco was neither compensated for nor granted any time extension for the placement of rolled curbs on the Project. (N.T. 151)

164. Publication 408-90 specification that was part of the Contract contained in Section 401.3(j)1 Longitudinal Joints, first sentence in the second paragraph was revised prior to bid to read "Paint the edge of the lane with a very thin coating of bituminous material, CLASS E-6 (AASH to SS-1 or CSS-1), E-8 (AASH to SS-1h or CSS 1h) or (emphasis added) OF THE CLASS AND TYPE DESIGNATED FOR THE SURFACE COURSE, prior to placing abutting lanes. (N.T. 162, 416-417; P-1 attachment to C408/90-96, p. 7)

165. DiMarco planned to use Class E8 material to seal the longitudinal joints on the Project. (N.T. 161)

166. PaDOT required and directed DiMarco to use AC-20 to seal the longitudinal joints, although the Contract did not require the use of AC-20, and further provided for the use of Class E8 material. (N.T. 163)

167. Mr. Hoffman testified that pursuant to the Contract documents and specifications, Class E8 material *could* be utilized by the contractor to seal the longitudinal joints. (N.T. 417)

168. AC-20 must be heated and applied by hand pouring, whereas Class E8 is applied through a sprayer. (N.T. 164)

169. The use of AC-20 was more expensive and time consuming. (N.T. 164)

170. DiMarco was not compensated for the AC-20 material or the labor associated with sealing the longitudinal joints on the Project. (N.T. 164)

M - REVISION TO FILL SLOPE OUTSIDE RIGHT-OF-WAY

171. According to the Contract plans, S.R. 1010 Section 002 from stations 711 to 726 had a right-of-way within the project limits of approximately 33 feet in length. The right-of-way limits are marked on the contract drawings as a solid line broken by three dashes on either side of the roadway. (Exhibit P-2, sheets 2 of 23 and 14 of 23)

172. The Contract prohibited DiMarco from performing any work outside the highway right-of-way unless ordered *in writing* by the engineer. (Exhibit P-2, sheet 2 of 23 (General Notes))

173. As confirmed by Mr. Hoffman during his testimony, there was no work to be performed outside the highway right-of-way on the project as bid by DiMarco. (N.T. 393-394)

174. The contract plans contain an “EARTHWORK SUMMARY ENTIRE PROJECT” on sheet 2 of 25, P-2, which indicates that there was an estimated 5241 CY of excavation and 1378 CY of embankment and select borrow. Thus the project was presented to DiMarco at the time of bid as a “waste job” and any surplus excavation was hauled off site. (N.T. 77; P-2, sheet 2 of 23)

175. During the Project, DiMarco wasted Class I excavation material offsite at a location approved by PaDOT.

176. Immediately adjacent to, but outside of, PaDOT’s right-of-way, the contiguous properties were fill-sloped away from the road at steep angles which PaDOT determined, during construction, was an unsafe roadway condition. (N.T. 77; P-19; D-1 (54))

177. On October 20, 1993, PaDOT held a meeting with DiMarco to discuss the installation of guide rail versus placing fill from stations 711 to 726 Rt. in the slope area. DiMarco was to work up prices for both options. (Exhibits D-1 at p. 54; P-19; N.T. 77-79)

178. As directed, DiMarco began working up prices for each option as extra work. Prior to submission of a price proposal, PaDOT directed DiMarco to flatten out the slope area by placing Class I excavation, that had been hauled from the project, in the slope area outside of the project right-of-way. (N.T. 79, 337, 394)

179. On cross, Mr. Hoffman established that the contract restricted the performance of work outside of the right-of-way and he testified, on direct, that the slope area that PaDOT directed DiMarco to flatten out was, in fact, beyond PaDOT’s right-of-way and PaDOT had gotten a release from the property owner to place material beyond the right-of-way. (N.T. 338)

180. At the time PaDOT directed DiMarco to perform the slope work, the Project was substantially complete, and all Class I excavation had been removed from the project and wasted at the PaDOT approved location. (N.T. 77-78)

181. PaDOT did not issue any written directive to DiMarco to perform the slope work although required to do so by the Contract. (N.T. 81; Exhibit P-2, sheet 2 of 23; N.T. 397-398)

182. PaDOT further directed DiMarco that the slope work was “DiMarco’s responsibility” and that it would not receive any additional contract time or compensation for that work. (N.T. 79)

183. On Friday, October 29, 1993 PaDOT directed DiMarco to perform the slope work, DiMarco was beyond the 91 calendar days permitted by the Contract and PaDOT was assessing liquidated damages and continued to do so until slope work was finished. (N.T. 80-81, 389)

184. DiMarco performed the slope work as requested by PaDOT which included retrieving excavated material from the waste site; placing it outside the right of way at the indicated stations; and flattening, grading and seeding the slopes. (N.T. 81)

185. Weeks after DiMarco performed the initial slope work, PaDOT directed DiMarco to regrade and reseed the slope area to PaDOT's satisfaction. DiMarco complied, only to be directed to regrade and reseed again in December. (N.T. 82)

186. PaDOT assessed liquidated damages against DiMarco until the slope work was complete on December 3, 1993, although no original contract work remained to be completed on the Project. (N.T. 82)

187. PaDOT's internal project documentation classified the slope work as "extra work." (N.T. 391-392; Exhibit P-18, p. 103-104)

188. On cross, Mr. Hoffman established that if PaDOT directs extra work the contractor would get a commensurate time extension. (N.T. 388)

189. Mr. Hoffman testified that PaDOT did not compensate DiMarco for the slope work performed. (N.T. 418)

N - LIQUIDATED AND ROAD USER DAMAGES AND PENALTIES

190. By letter dated October 21, 1993, Plaintiff agreed to a \$925.00 penalty for placement of defective concrete. (Exhibit D-13)

191. PaDOT's breakdown and computation of the \$90,000 in liquidated damages is as follows:

TIME BREAKDOWN

Original Contract Time	91 Days
Utility Conflict Request Approved 9-29-93	<u>3 Days</u>
Subtotal	94 Days

Liquidated Damages--Phase 1 Reconstruction 1 Day at \$1,000 Per Day = \$1,000	
Liquidated Damages--Phase 2 Reconstruction 37 Days at \$1,000 Per Day = \$37,000	
Liquidated Damages for Exceeding Contract Limits 65 Days at \$800 Per Day = \$52,000	
Total Liquidated Damages \$90,000	
Total Contract Time for Liquidated Damages	<u>65 Days</u>
Total Contract Time	159 Days

(N.T. 330; Exhibit D-15)

192. DiMarco was delayed by PaDOT from Monday, June 28, 1993 until Tuesday, July 6, 1993, nine calendar days in Phase I from closing the roadway and commencing excavation. However, PaDOT failed to grant DiMarco an eight-day extension of time. The anticipated completion date was September 26, 1993. (N.T. 29-30, 304)

193. Mr. Hoffman testified that if PaDOT directs extra work to be performed, the contractor should receive a commensurate time extension in which to complete the extra work. (N.T. 388)

194. Mr. Hoffman testified that DiMarco was directed to perform extra work on October 29, 1993, but received no commensurate extension of time. (N.T. 389-391)

195. DiMarco did not receive an extension of contract time, or any additional compensation for the work it performed to overcome the conflict between the utility elevations depicted in the cross sections and the actual filed conditions. (N.T. 55, 413)

196. PaDOT did not grant DiMarco an extension to contract time as a result of the soft subgrade in Phase II of the Project. (N.T. 67)

197. PaDOT did not grant DiMarco any time extension for the use of the AC20 to seal the longitudinal joints on the Project. (N.T. 165)

198. DiMarco incurred 2-3 times more equipment and labor hours as a result of PaDOT's interferences with DiMarco's planned method of paving operations. (N.T. 174)

199. It took DiMarco twice as long to perform the paving operations on the Project as a result of PaDOT's interferences with DiMarco's planned method of operations. (N.T. 174)

200. PaDOT was aware that DiMarco was accelerating its workforce, but refused to extend the contract completion date or otherwise suspend the assessment of liquidated damages.

201. DiMarco was originally the second lowest bidder for the Project some \$31,000 higher than the low bidder who had been thrown out because of a "typo." The third bidder was \$722.00 higher than DiMarco's 677,000 plus bid which Wayne DiMarco characterized as tight bidding. (N.T. 14-15)

202. Jeffrey Fuchs, an expert in construction cost accounting and analysis, audited, reviewed and evaluated DiMarco's claim to ensure its accuracy in accordance with generally accepted auditing and accounting standards. (N.T. 200-206)

203. Mr. Fuchs testified that he verified that DiMarco's claim was accurate and within a reasonable degree of generally accepted auditing and accounting standards. (N.T. 225-226)

204. DiMarco anticipated at the time of its bid that it could perform all work under the Contract at a cost of \$620,996.00 exclusive of overhead and profit. (Exhibits P-25 and P-27)

205. DiMarco's estimate of its costs was a reasonable estimate based upon the circumstances and conditions of which it had knowledge at the time of bid. (N.T. 212)

206. Mr. Fuchs stated he verified the amount estimated actual costs incurred by DiMarco for discrete bid items claims to be impacted by PaDOT interferences/breaches which are summarized below from Schedule 7 of P-27:

Discrete Item	Actual Cost	Amount Estimate	Excess Cost
Earthwork C1-1 Excavation	142,535	30,505	112,030
Paving			
Subbase 6"	37,983	28,969	9,014
Wearing	237,808	86,882	150,926
Binder/Tach	152,010	107,465	44,545
Base	<u>168,021</u>	<u>156,822</u>	<u>11,199</u>
Total	595,822	380,138	215,684

Traffic Control		46,890	13,400	33,490
Pipe Work	C1 4 Excavation	25,124	9,861	15,263
	18" RCP Class III	26,494	17,600	8,894
	60 RCP Class IV	<u>21,592</u>	<u>11,756</u>	<u>9,836</u>
		73,210	39,217	33,993
Remaining Items		124,943	125,999	(1,056)
Change Orders		<u>0</u>	<u>31,737</u>	<u>31,737</u>
Total w/o Overhead & Profit		983,400	620,996	362,404

(N.T. 210-211, 215-218; Exhibit P-27)

207. On cross, Wayne DiMarco admitted that the 60-inch RCP cross pipe was the first cross pipe installed and “That had to go in at one shot.” Therefore, there is no evidence that the installation of the 60" RCP cross pipe was subjected to any PaDOT directed method of ½ width installations or interference. (N.T. 99)

208. On cross, Jeffrey Fuchs admitted that on DiMarco’s estimate next to tackcoat it is zero. He further stated that DiMarco typically estimates that tackcoat is an incidental item or it is part of the binder course. (N.T. 241-243)

209. Mr. Fuchs admitted on cross that \$21,077.00 for tackcoat that was shown on schedule eight of (Defendant Exhibit 51), but was combined with the binder costs on schedule seven (Plaintiff’s Exhibit 27) resulting in the alleged \$44,545.00 excess cost for binder/tach. (N.T. 231-233, 242-243; Exhibit P-27, schedule 7)

210. Schedule 7 Summary of the calculation of cost impacts lists \$362,404 in excess cost which the Board finds must be adjusted as follows:

	Excess Cost
Total w/o Overhead & Profit and Interest	362,404
Minus alleged excess cost 60" RCP Class III	(9,836)
Minus alleged excess cost tach coat with 0 estimate	<u>(21,077)</u>
Adjusted excess cost	331,491

(N.T. 210; P-27, schedule 7)

211. Schedule 2 Calculation of Project Cost with overhead and Profile is revised as follows:

Description	Cost	Note
Planned cost as estimated	620,996	Schedule 4
Cost in excess of estimate (adjusted by Board)	<u>331,491</u>	Finding #209
Project cost (adjusted by Board)	952,487	
Original OH & Profit in Bid	88,398	
OH & Profit on Excess Cost (Adjusted) @ 15%	49,724	
Projected cost with OH & Profit	<u>1,090,600</u>	

(N.T. 210-211; P-27, schedule 2)

212. By letter dated October 21, 1993, DiMarco agreed to a \$925.00 penalty for placement of defective concrete. (D-13)

213. The claim by DiMarco as adjusted by the Findings of the Board is as follows:

Project cost with OH and Profit	1,090,600
Minus agreed to penalty	<u>(950)</u>
Adjusted cost with OH and Profit	1,089,650
Minus revenue paid by PaDOT	<u>623,221</u>
Adjusted value of claim without interest	466,429

(P-27, schedule 1)

214. DiMarco was required to perform extra work to stabilize the subgrade, delayed in starting Phase I and was directed to perform extra work that extended past the contract completion for which PaDOT failed to grant a time extensions commensurate with extra work performed. (N.T. 330, 388)

215. PaDOT had reduced the payment to DiMarco by \$90,000.00 for liquidated damages which were not justified considering the extra work and delays and changed conditions in the performance of contract work caused by the actions and inactions of PaDOT. (Record)

216. DiMarco's actual damages resulting from PaDOT impacts, interference and non-payment for extra work they directed is as follows:

Adjusted value of claim without interest	466,429
Payment of liquidated damages withheld by PaDOT	<u>90,000</u>
Total value of claim exclusive of interest	556,429

(Record)

CONCLUSIONS OF LAW

1. The Board of Claims has jurisdiction over the subject matter of this action and the parties thereto. **72 P.S. 4651-1, et seq.**

2. Plaintiff and Defendant entered into Contract No. 087254 for the improvement of a certain section of state highway in Lancaster County, Earl and East Earl Township and Terre Hill Borough. The Contract was drafted by the PaDOT and its agents.

3. PaDOT's D-476 schedule was inadequate and impractical in that it did not provide sufficient time to perform all work within the time periods allotted.

4. Plaintiff's plan dividing the Project in 2 areas designating as Area I and Area II was practical for completing the work. This plan was orally accepted by Defendant.

5. Defendant's direction to Plaintiff to keep the entire roadway open and nonconflicting with traffic for the July 4th weekend impeded Plaintiff's ability to proceed with its work and necessitated an extension of contract time.

6. Plaintiff was not under a duty to conduct an examination or investigation of subsurface condition under the roadway prior to entering into the contract as a reasonable investigation concerning a job of their nature would not require such examination.

7. Plaintiff could not have reasonably anticipated encountering "soft spots" in Phase I of the Contract and therefore was entitled to receive an extra work change order, additional compensation and an extension of time.

8. Plaintiff is entitled to recover its cost overruns resulting from the working of the soft subgrade, undercutting of unattainable material and placing of geotextile and ballast stone in Phase I of the Project.

9. Defendant's direction to Plaintiff to maintain one lane of the road often at all times to facilitate local traffic and emergency vehicle and to install cross pipes in ½ sections in Phase II of the operation interfering with and disrupted Plaintiff's ability to conform to the terms of the contract.

10. As a result of such interference, Plaintiff's performance was delayed and increased costs were incurred.

11. Defendant's Phase II cross pipe work design submitted to Plaintiff contained erroneous information concerning the elevation of existing water and utility lines.

12. Such misinformation caused Plaintiff to extend additional sums for materials and labor and additional time to complete the contract.

13. The failure of Defendant to issue extra work orders and to compensate Plaintiff for extra work performed is a breach of contract by Defendant.

14. Defendant should have reasonably anticipated the direction to Plaintiff to undercut soft areas in Phase II of operation would interfere with existing utility lines.

15. The damage caused by Plaintiff's cutting the water utility's service lines and causing delays due to wetness of the area was the result of Defendant's misinformation.

16. The place of geotextile and stone over the area constituted extra work for which Plaintiff should be compensated.

17. Plaintiff should have been granted an extension of time as a result of the soft subgrade in Phase II of the profit.

18. The one core sampling made to order the removal and replacement of the bituminous paving was improper in that said sampling was not handled or tested properly.

19. The failure of Defendant to retest said core sampling was a breach of its duties under the Contract.

20. Defendant's action in ordering removal and replacement of paving was improper. Plaintiff is entitled to additional compensation for such work and should have been given an extension of time.

21. Defendant's direction to Plaintiff to remedy low spots in the paving operation and direction to repave were without proper basis and caused Plaintiff unnecessary delays.

22. Defendant's action in authorizing shipment of material to Plaintiff caused Plaintiff unnecessary delays in paving operation.

23. The requirement by Defendant to place a rolled curb throughout the Project was extra work entitling Plaintiff to extra compensation.

24. The requirement of Defendant that AC20 be used to seal the longitudinal joints was not a contract requirement and resulted in extra costs incurred by Plaintiff for which Plaintiff was not compensated.

25. The direction of Defendant to Plaintiff to flatten out a certain slope area and use Class 1 Excavation outside of their right of way without an order written by the engineer was improper.

26. The performance of such work by Plaintiff required that Plaintiff receive additional contract time and compensation.

27. The assessing of any liquidated damages against Plaintiff was improper as any delay beyond the contract due date was caused by action of Defendant.

28. The testimony of Plaintiff's expert construction cost accountant was within a reasonable degree of generally accepted standards and was not speculative.

29. Plaintiff is entitled to interest at the legal rate of six percent (6%) per annum from December 6, 1993, the date of the filing of the Complaint.

OPINION

The parties hereto entered into a contract on or about June 11, 1993 for improvement of a certain section of state highway in Lancaster County for the principal sum of Six Hundred Seventy-Seven Thousand Six Hundred Forty-Eight Dollars and Thirty-Five Cents (\$677,648.35). The Contract provided for the reconstruction and resurfacing of bituminous pavement, drainage improvements, base repair and the installation of related materials and performance of associated work. The Contract further provided that all work to be completed within 91 calendar days after issuance of a Notice to Proceed by Defendant.

The Contract was divided into two phases representing two separate areas of road reconstruction within the project area. The phasing was delayed to permit two different sections of the highway to be cleared at different times for the maintenance and protection of traffic during construction.

The Contract permitted the Plaintiff 20 calendar days to close the road in the Phase I area of work and provided for road user liquidated damages in the amount of One Thousand Dollars (\$1,000.00) per day that the Phase I area was closed to traffic beyond the 21-day period.

Defendant's project schedule for the Project was impractical and unworkable in that it anticipated certain earthwork operations during Phase I to begin on Day 17 of construction. This would extend the completion of Phase I to Day 37 which would be 17 days beyond the contract allotted time for Phase I.

The Contract further provided that the area be closed to traffic in Phase II of the operation for 43 days. The traffic scheduling provided that Plaintiff would have only six days to

perform all drainage work in Phase II of the operation which was insufficient time to complete such activity. Based on the conflict between the Contract, the Project, and the scheduling requirements, Plaintiff was compelled to change their scheduling plan before proceeding with construction.

Plaintiff received an official notice to proceed with construction on Monday, June 28, 1993, and thereafter, was told to keep the entire roadway open for the July 4th weekend. Plaintiff therefore could not begin its Phase I reconstruction before July 6, 1993 and did not receive an extension of time to account for Plaintiff or Defendant's direction to maintain an open roadway.

It is clear that any delays Plaintiff encountered due to Defendant's directive pertaining to the July 4th weekend and the Project scheduling conflict with the contractual completion requirements were caused by Defendant. As a result, Plaintiff was entitled to an extension of time to complete the Project. Defendant's subsequent insistence on compliance with the Contract time restriction was unreasonable in view of the fact that their action lead to such delays. Where one party to a contract is the cause of another's failure to perform, it cannot assert that failure against the other. Commonwealth of Pennsylvania, Department of Transportation v. W. P. Dickerson & Son, Inc., 400 A.2d 930 (1979).

During Phase I of the operation, Plaintiff encountered "soft spots" in the subgrade. Plaintiff immediately notified Defendant of the unstable subgrade and requested direction on how to proceed. There was no indication in any of the contract drainage and/or bid documents that soft or unstable areas were likely to be encountered on the Project. Further testimony indicated that Plaintiff's pre-bid examination of the Project site would not reveal such soft spots as it would have necessitated digging up part of the roadway which would be impractical and overly burdensome.

As a result of the encountering such “soft spots,” additional labor materials and time were required. Defendant refused to grant Plaintiff an extension of time to stabilize the subgrade and refused to grant Plaintiff extra compensation for the additional labor and materials required. Plaintiff is entitled to compensation for work and materials required to stabilize the subgrade.

Further, the Contract, did not required that one line of traffic be opened during Phase II of the operations. Defendant instructed Plaintiff to maintain one lane of the roadway open at all times. This action resulted in Plaintiff installing pipe in ½ sections as opposed to placing pipe in one continuous operation. This action resulted in the need for Plaintiff to be granted additional time and resulted in additional costs. Further, cross section drainage diagrams prepared by Defendant and provided to Plaintiff falsely depicted elevations for the placement of pipes in relation to the elevations of existing water and sewer utility lines which resulted in the proposed placement of cross pipes overlapping utility lines in some areas. Once again, Defendant refused to grant Plaintiff change orders for costs associated with such work and a commensurate time extension for any delay associated therewith.

Defendant attempts to place the responsibility on Plaintiff for locating all utility lines. However, it is clear that a contractor is not responsible for drainage detail provided by the Defendant with regard to the location of underground utilities. IA Construction v. Department of Transportation, 591 A.2d 1146 (1991).

Defendant further directed Plaintiff to remove and replace a section of the highway due to an alleged failure to achieve appropriate density requirements as a result of a single core test extracted from the roadway. Based on testimony, it is evident that the testing procedure was inadequate. Evidence further establishes that Defendant compelled Plaintiff to perform extra work without receiving extra compensation throughout the entire course of the Project.

Plaintiff is entitled to extra compensation for reworking of the subgrade in Phase II of the Project and was also entitled to a time extension. Although Plaintiff made such requests, their efforts in their regard were ignored.

Although Defendant contends that Plaintiff did not perform its contractual obligations within the time limitations as set forth in the Contract, it is evident that the delays were the result of Defendant's actions. Where one party to a contract is the cause of another's failure to perform, it cannot assert that failure against the other. Commonwealth of Pennsylvania, Department of Transportation v. W. P. Dickerson & Son, Inc., Pa. Commonwealth 1979, 400 A.2d 930. It is further evident, that Defendant's actions caused Plaintiff to sustain increased labor and material costs for which they are entitled to be compensated. Commonwealth of Pennsylvania, Department of Transportation v. Paoli Construction Company, Pa. Commonwealth 1978, 386 A.2d 173.

Defendant not only did not grant Plaintiff an extension of time, but assessed liquidated damages against Plaintiff in the sum of Ninety Thousand Dollars (\$90,000.00) based on a 65-day delay in performance. This charge is improper as a party cannot retain liquidated damages for the amount of delay caused by its own actions. Pittsburgh Iron and Steel Engineering Co. v. National Tube Works Co., 184 Pa. 251, 39 A.2d 76 (1898).

The testimony of Plaintiff's construction cost accounting expert was in accordance with generally accepted auditing and accounting standards and was verified to be accurate within a reasonable degree. That is the accepted standard for assessment of damages in cases of this nature.

Such testimony is not speculative. A.M./P.M. Fracture v. Atlantic Richfield, 526 Pa. 110, 594 A.2d 915 (1990). Accordingly, the determination of damages is a factual issue to be decided by the Board. Delahanty v. 1st Pa. Bank, 318 Pa. Super 90, 464 A.2d 243 (1983).

For the reasons set forth above, it is our finding that Plaintiff is entitled to damages in the sum of Five Hundred Fifty-Six Thousand Four Hundred Twenty-Nine Dollars (\$556,429.00) as calculated in our findings of fact.

ORDER

AND NOW, this 7th day of November, 1997, judgment is hereby entered in favor of Plaintiff, P. DiMarco & Company, Inc., in the amount of Five Hundred Fifty-Six Thousand Four Hundred Twenty-Nine Dollars (\$556,429.00) with interest at the rate of six percent (6%) per annum from December 6, 1993.

Upon receipt of said award, Plaintiff shall forthwith file with the Board of Claims a Praeceptum requesting that the matter be marked closed, discontinued and ended with prejudice.

Each party to bear its own costs and attorneys fees.

BOARD OF CLAIMS

David C. Clipper
Chief Administrative Judge

Louis G. O'Brien
Engineer Member

James W. Harris
Citizen Member

Opinion Signed