BRAVERMAN KASKEY

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Southeastern Pennsylvania
Transportation Authority

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SOUTHEASTERN PENNSYLV	VANIA	:	COURT OF COMMON PLEAS OF
TRANSPORTATION AUTHOR	RITY	:	PHILADELPHIA COUNTY
1234 Market Street		:	
Philadelphia, PA 19107-3780		:	CIVIL ACTION - LAW
	Plaintiff,	:	TERM
		:	NO
v.		:	
		:	JURY TRIAL DEMANDED
AECOM USA, INC.		:	
605 Third Avenue,		:	
New York, NY 10158-0180		:	
	Defendant.	:	

COMPLAINT

Plaintiff Southeastern Pennsylvania Transportation Authority ("SEPTA"), by and through its undersigned counsel, states this Complaint against AECOM USA, Inc. ("AECOM") and, in support thereof, avers as follows:

Nature Of The Action

1. This litigation arises out of AECOM's failure to perform its duties as the architect/engineer for SEPTA's \$740 million Market Street Elevated Reconstruction Project ("MSER Project"). AECOM's design deficiencies and omissions on the MSER Project include survey errors, defects related to guideway deck width, incorrect structural steel camber, errors in the rail profile, relocation of the third rail, design errors in fixation of fasteners, plinth redesign

and errors in design of reinforcing steel, all of which caused, *inter alia*, substantial delays and increased costs resulting in contractor claims. SEPTA seeks to recover its damages arising therefrom. To date, these errors and omissions have resulted in substantial additional costs to SEPTA, including, more than \$43 million to settle contractor claims, and additional costs for contract amendments and costs to defend contractor lawsuits. Further, these design deficiencies, if left uncorrected, would have endangered the safety and welfare of SEPTA's ridership, the surrounding community and members of the public. SEPTA brings this Complaint against AECOM for direct and consequential damages, contribution and indemnity.

The Parties

- 2. Plaintiff SEPTA is a body corporate and politic exercising the powers of the Commonwealth of Pennsylvania as an agency and instrumentality thereof, with offices located at 1234 Market Street, Philadelphia, Pennsylvania 19107-3780.
- 3. Defendant AECOM is a corporation organized under the laws of the state of New York with principal offices located at 605 Third Avenue, New York, New York 10158-0180.

 AECOM is the successor in interest to DMJM+Harris and Frederic R. Harris, (collectively "AECOM") and was the Architect/ Design Engineer for the MSER Project.
- 4. AECOM is a licensed professional pursuant to Pa. R.C.P. 1042.1 *et seq.*, with offices in Philadelphia County, Pennsylvania. SEPTA is asserting breach of contract and professional liability claims, among others, against AECOM.

Jurisdiction and Venue

5. Jurisdiction is proper in this Court pursuant to 42 Pa. C.S.A. § 931 and pursuant to the Consultant Agreement for Architectural/Engineering Services, Reconstruction of the

Market Street Elevated, October, 1995 ("Contract") at CAE-17, ¶ 29, a true and correct of copy of which is attached hereto as Exhibit "A."

6. Venue is proper in Philadelphia County because many of the events or omissions giving rise to the claims occurred in Philadelphia County.

Background of the MSER Project

7. Prior to the MSER Project, the Market-Frankford Subway Elevated (the "Blue Line") carried approximately 160,000 daily riders to destinations throughout the City of Philadelphia and its suburbs over a one hundred year old infrastructure consisting of a subway and elevated guideway. It is the most heavily patronized component of SEPTA's Rapid Transit System. The Blue Line includes the Market Street Elevated ("MSE"). Approximately ten years ago, SEPTA embarked upon the multi-year reconstruction of the MSE, a two-track guideway that runs above Market Street between 45th Street and the western abutment near Millbourne Station in Upper Darby, Pennsylvania. As of December 2009, the MSER Project is substantially complete.

The MSER Project

- 8. The purpose of the MSER Project was to accomplish the staged replacement of the MSE, consisting of approximately 11,000 feet of guideway (22,000 feet of track), from the western subway portal near 45th Street to a point west of Millbourne Station. The work also included the reconstruction of six new passenger stations located at 46th, 52nd, 56th, 60th, and 63rd Streets, and the replacement of Millbourne Station.
- 9. The program and construction manager for the overall MSER Project was Jacobs Engineering Group, Inc. and its sub-consultants (collectively, "Jacobs").

10. The MSER Project consisted of the following contracts: (i) 52nd and 63rd Street Stations Phase 1 – Station Equipment Buildings ("SEB Contract"); (ii) Foundations and Ductbank; (iii) Cobbs Creek; (iv) Guideway; and (v) Stations.

52nd and 63rd Street Stations Phase 1 – Station Equipment Buildings ("SEB")

11. The SEB Contract consisted of the construction of two (2) new buildings to house the Automatic Train Control (ATC) and Third Rail Gaps equipment for the MSE. These buildings were incorporated into the new station headhouses that were built at 52nd and 63rd Streets under a separate contract. This was a multi-prime contract including general, mechanical and electrical contractors.

Foundations and Ductbank ("Foundations Contract")

12. The Foundations Contract consisted of the installation of guideway foundations, pedestals and a new underground ductbank from 45th Street to east of 63rd Street. It also included utility relocation. This was a single prime contract requiring a general contractor. The general contractor was Driscoll Construction Co., Inc. ("Driscoll").

Cobbs Creek Contract

- 13. The Cobbs Creek Contract consisted of the reconstruction of the Cobbs Creek section of the MSE Line which consisted of reconstruction of the open deck section of the guideway between 63rd Street Station and the west abutment, the replacement of 63rd Street Station and adjacent ballasted guideway, and the replacement of Millbourne Station. This was a multi-prime contract including general, mechanical and electrical contractors.
- 14. On or about November 21, 2001, the general contractor, PKF-Mark III, Inc.("PKF"), and SEPTA entered into the Cobbs Creek Contract.

- 15. In conjunction with the Cobbs Creek Contract, Travelers Casualty and Surety Company ("Travelers"), acted as surety for PKF, as principal, and issued a Performance Bond numbered 38SB 103245660 (the "Bond") naming SEPTA as the owner on the Bond.
- 16. On or about October 26, 2004, PKF commenced an action against SEPTA in the Court of Common Pleas, Philadelphia County, October Term 2004, No. 003323 entitled *PKF-Mark III, Inc. v. Southeastern Pennsylvania Transportation Authority* (hereinafter, "Cobbs Creek Litigation") in which PKF contended that SEPTA had breached the Cobbs Creek Contract. PKF sought more than \$34 million damages from SEPTA for, *inter alia*, certain design errors and omissions in connection with the MSER Project. PKF alleged that the drawings and specifications, as bid, were deficient and certain aspects of the Project, as designed by AECOM, were unconstructible.
- 17. With AECOM's knowledge, SEPTA denied all of PKF's allegations of wrongdoing and any and all liability to PKF in the Cobbs Creek Litigation.
- 18. SEPTA terminated the Cobbs Creek Contract for cause on December 7, 2004 and made a demand upon Travelers on the Bond.
- 19. On May 27, 2005, Travelers filed a complaint against SEPTA entitled *Travelers Casualty and Surety Company v. Southeastern Pennsylvania Transportation Authority*, No. 004281, May Term 2005, in the Court of Common Pleas, Philadelphia County, averring that Travelers had no liability to SEPTA under the Bond ("Travelers Litigation").
- 20. SEPTA filed an answer and counterclaim in the Travelers Litigation denying Travelers' allegations and asserting that Travelers was in breach of its obligations under the Bond.

- 21. Subsequently, SEPTA, PKF and Travelers engaged in a mediation ("Cobbs Creek Mediation") which resulted in a full and complete settlement of the claims and counterclaim (including all outstanding claims and potential change orders) in the Cobbs Creek Litigation as well as the Travelers Litigation.
- 22. AECOM had notice of, and was present at, the Cobbs Creek Mediation and had the opportunity to defend, but did not do so.
- 23. The Cobbs Creek Litigation was settled by a payment of \$10 million by SEPTA to PKF. The terms and conditions of the parties' Settlement Agreement included mutual releases and covenants by the parties and provided for a dismissal of the Cobbs Creek Litigation. A true and correct copy of the Cobbs Creek Settlement Agreement dated March 16, 2007 (executed May 16, 2007), is attached hereto as Exhibit "B."
- 24. The Travelers' Litigation was settled by the payment of \$3,333,333.33 from
 Travelers to SEPTA in accordance with the parties' Settlement Agreement dated May 16, 2007.

 A true and correct copy of the Travelers' Settlement Agreement is attached hereto as Exhibit

 "C."
- 25. SEPTA incurred additional costs to settle claims brought by the Cobbs Creek prime electrical contractor, Ray Angelini, Inc. ("RAI"), for approximately \$2.2 million as well as the Cobbs Creek prime mechanical contractor, Devine Brothers, Inc. ("DBI"), in the amount of \$575,000 for delays and increased costs associated with PKF's termination and AECOM's design deficiencies.
- 26. Subsequent contracts were entered into for the completion of the work on the Cobbs Creek portion of the MSE Line. On December 14, 2004, SEPTA procured an Emergency

Contract with Driscoll to restore the construction area to a safe and protected condition for the residents, business patrons, motoring public and SEPTA ridership.

- 27. Further, SEPTA entered into the Cobbs Creek Intermediate Foundations and Utility Contract ("Cobbs Creek Intermediate Contract") with Market Street Constructors ("MSC") on May 13, 2005. MSC consists of the joint venture of Granite Construction, Inc. and Neshaminy Constructors, Inc. ("Neshaminy"). MSC brought a claim for delays and acceleration under the Cobbs Creek Intermediate Contract due to AECOM's design issues and SEPTA ultimately incurred additional costs of approximately \$2 million to settle the claim.
- 28. On or about May 18, 2005, SEPTA filed a separate complaint in equity against PKF and its subcontractor, High Steel Structures, Inc. ("HSSI"), in the Court of Common Pleas, Philadelphia County, May Term 2005, No. 002659 entitled *Southeastern Pennsylvania*Transportation Authority v. PKF-Mark III, Inc. and High Steel Structures, Inc. seeking an injunction against PKF and HSSI with respect to certain bent steel columns intended for use in the Cobbs Creek Contract. The injunction was granted and the litigation was ultimately settled following the parties' execution of a purchase and sale agreement for the steel.
- 29. On January 26, 2007, SEPTA entered the Cobbs Creek Completion Contract with Cobbs Creek Constructors, a joint venture between Neshaminy and Buckley & Company, Inc., to complete the guideway reconstruction between the Western Abutment and Bent 62-07, the new station buildings at 63rd Street and Millbourne Station and on-grade trackwork. The guideway elements of the Cobbs Creek Completion Contract were substantially completed in June 2009.

Stations Contract

30. The Stations Contract consisted of the reconstruction of the stations and

guideway at 46th, 52nd, 56th, and 60th Streets. This was a multi-prime contract including general, mechanical and electrical contractors.

- 31. MSC, as the general contractor, and SEPTA entered into the Stations Contract on October 3, 2003.
- 32. On May 26, 2006, MSC submitted a Time Impact Analysis ("TIA") to SEPTA, averring, *inter alia*, that SEPTA/AECOM failed to provide adequate project survey controls on referenced contract drawings and failed to handle survey impacts in a timely fashion, causing MSC to suffer delay impacts. MSC asserted claims against, and sought damages from, SEPTA for certain design errors and omissions caused by AECOM.
- 33. On March 4, 2008, MSC submitted a Request for Equitable Adjustment ("REA"), seeking delay damages of approximately \$39 million and, on March 10, 2008, MSC further submitted on behalf of its subcontractor, American Bridge Manufacturing ("ABM"), a supplemental REA seeking an additional \$15.5 million from SEPTA also for survey related delay impacts.
- 34. With AECOM's knowledge, SEPTA defended and denied any and all liability to MSC and ABM.
- 35. Subsequently, MSC and SEPTA engaged in extensive mediation and negotiations which resulted in a full and final settlement of MSC's and ABM's claims ("Stations Mediation"). A true and correct copy of the Settlement Agreement for the Stations Contract is attached hereto as Exhibit "D." Under the Settlement Agreement, SEPTA paid \$16,026,018 (including change orders) to MSC.
 - 36. AECOM had notice of and was present at the Stations Mediation and had the

opportunity to defend but did not do so.

37. Additionally, SEPTA incurred costs of approximately \$2.8 million to settle claims brought by the Stations Contract prime electrical contractor, RAI, as well as the Stations Contract prime mechanical contractor, DBI, for delays and increased costs associated AECOM's design deficiencies.

Guideway Contract

- 38. The Guideway Contract included reconstruction of the guideway structure from west of 47th Street to east of 63rd Street Station, not including 52nd, 56th, 60th Street Stations and the guideway located between the platforms of those stations. This was a single prime contract requiring a general contractor.
- 39. On or about April 29, 2003, SEPTA and PKF, as the general contractor, entered into the Guideway Contract.
- 40. On December 21, 2007, PKF filed a complaint against SEPTA in the Court of Common Pleas, Philadelphia County, December Term 2007, No. 003407 entitled *PKF-Mark III*, *Inc. v. Southeastern Pennsylvania Transportation Authority* ("Guideway Litigation"). In the Complaint, PKF sought more than \$20 million in damages for design errors and omissions, alleging, *inter alia*, that the drawings and specifications, as bid, were deficient and certain aspects of the job, as designed by AECOM, were unconstructible.
- 41. With AECOM's knowledge, SEPTA defended and denied any and all liability to PKF.
- 42. Subsequently, the Guideway Litigation was settled (including all outstanding claims and potential change orders) pursuant to the terms and conditions of the Settlement

Agreement. A true and correct copy of the parties' Settlement Agreement for the Guideway Contract is attached hereto as Exhibit "E." Specifically, SEPTA paid PKF \$9.8 million as well as \$1 million in change orders relating to PKF's and PKF's subcontractors', vendors' and suppliers' continuity bolt up claims.

The AECOM Contract

- 43. On or about January 3, 1996, AECOM and SEPTA entered into the Contract under which AECOM, as the Architect/Engineer, would provide architectural and engineering services for the entire MSER Project for a total contract price not to exceed \$21,362,816. A true and correct copy of the Contract is attached hereto as Exhibit "A."
- 44. Through numerous contract amendments, the original contract price increased by approximately eighty-eight percent to \$40,058,393.
- 45. AECOM had knowledge of the contractor claims hereinbefore described including, the Cobbs Creek Litigation, the Travelers Litigation, the Guideway Litigation and the Stations Mediation.
- 46. Accordingly, on February 15, 2006, SEPTA and AECOM entered into an agreement whereby AECOM agreed, *inter alia*, that any and all limitations period applicable to any claims SEPTA may have against AECOM would be tolled as of January 24, 2006 (hereinafter "Tolling Agreement").
- 47. SEPTA and AECOM extended said Tolling Agreement continuously, orally and in writing from February 15, 2006 through June 18, 2008 and, further, agreed to cooperate in the defense of any claims asserted against SEPTA by any prime contractor or subcontractor which performed services on the MSER Project.

- 48. On November 16, 2007, SEPTA commenced an action against AECOM in the Court of Common Pleas, Philadelphia County, November Term 2007, No. 002005 entitled Southeastern Pennsylvania Transportation Authority v. DMJM+Harris (hereinafter "AECOM Litigation I") in which SEPTA contended, inter alia, that AECOM was liable for certain design errors and omissions under the Contract.
- 49. In light of the AECOM Litigation I and other considerations, on June 18, 2008, SEPTA and AECOM agreed to cooperate in defending against all contractor claims filed against SEPTA in connection with the MSER Project. A true and correct copy of the Cooperation and Tolling Agreement is attached hereto as Exhibit "F."
- 50. Specifically, under the Cooperation and Tolling Agreement, SEPTA and AECOM agreed that the best strategic course was to jointly and mutually cooperate in (i) defending against all claims asserted against SEPTA related to the Market Street El Project, including those claims asserted by PKF and MSC, (ii) prosecuting SEPTA's counterclaims against PKF and MSC, to the extent that AECOM could reasonably do so, and (iii) not pursuing any claims *inter se*, including the AECOM Litigation I, but postponing the pursuit and resolution of all claims *inter se* until after the conclusion or resolution of the MSE contractors' claims or other termination of the Tolling Agreement.
- 51. On October 15, 2009, pursuant to the Cooperation and Tolling Agreement, SEPTA notified AECOM in writing that the MSE contractors' claims (brought by PKF and MSC, respectively) had been resolved by way of settlement and that SEPTA was terminating the Tolling Agreement. *See* Letter dated October 15, 2009, a true and correct copy of which is attached hereto as Exhibit "G."

- 52. The Contract, inter alia, expressly provided that:
 - a. time was of the essence in the performance of services under the Contract.
 (Contract, CAE-2, ¶3(b));
 - b. AECOM was responsible for preparing plans and specifications for the staged replacement of the Market Street Elevated from the eastern subway portal near 45th Street to a point west of Millbourne Station. The work also included the rehabilitation of passenger stations located at 46th, 52nd, 56th, 60th and 63rd Streets, and the reconstruction/replacement of Millbourne Station. (Contract at Ex. 1, §7.1);
 - c. the scope of services to be provided under the Contract were designated as three separate phases, each with a separate Notice to Proceed: PhasesA-1 (Engineering and Alternative Analysis Phase), Phase A-2 (Final Engineering./Design Phase) and Phase B (Construction Related Services) (Contract, CAE-1, ¶2; Exhibit 1 ¶7.1.1);
 - d. in Phase A-1, AECOM was required to: (i) perform conceptual engineering for single column bent support of the new guideway; (ii) perform preliminary engineering to construct a new guideway using existing columns; (iii) locate and identify utilities; (iv) investigate subsurface conditions as necessary; (v) perform constructability analyses of various schemes for each guideway support system; (vi) perform cost estimates and construction schedules for each guideway support system; (vii) perform a Federal Environmental Assessment for the guideway support system; (viii) investigate and propose architectural, ADA assessibility.

street-scape and BOCA code compliance improvements at station locations; (ix) investigate the property acquisition necessary for: possible track realignment at 63rd Street; reconstruction at Millbourne Station and providing elevator headhouses for ADA compliance at station locations; (x) perform preliminary construction packaging for the guideway support system; and (xi) coordinate with Rail Transportation Systems/LS Transit Systems (RTS-LSTS), the consultant joint venture performing the Frankford Elevated Rehabilitation Project (FERP) Automatic Train Control (ATC) design. (Contract, Exhibit 1, ¶7.1.1).

- e. Under Phase A-2 (Final Engineering/Design): "Phase A-2 work elements will be partially determined by the results of Phase A-1. In any event, they shall include as a minimum: (i) the final plans and specifications necessary for station improvements and the replacement of the superstructure on the existing supporting column system; and (ii) contract packaging based upon a constructability analysis that takes into account the following: interfacing with other SEPTA programs, especially the ATC project; staging areas; maintenance of subway/elevated and bus traffic; availability of busing/light rail support; availability of SEPTA force account personnel; and the overall reconstruction schedule." (Contract, Exhibit 1, ¶7,1.1).
- f. Under Phase B (Construction Support Services): "Phase B work elements will also be partially determined by the results of Phase A-1. See Section 7.7 for a listing of these elements." (Contract at Exhibit 1, CAE Page 1-1 to 1-2).
 - i. Section 7.7 provided: "Phase B: Engineering Support Services During

Construction. [AECOM] shall take due care to insure that construction phase services are performed in an expeditious and timely manner to prevent any delays to the contractor's performance of work. [AECOM] shall assign the following personnel to this project on a full-time on-site basis: One (1) Project Engineer – with appropriate experience to function as a construction phase project manager. Two (2) Senior Engineers - with appropriate experience to address construction phase issues related to [AECOM's] design. [AECOM] shall provide SEPTA with a method of expediting the transmission of submittals, requests for information, correspondence, etc. [AECOM] shall be responsible and accountable if the contractor asserts claim(s) for delays caused by [AECOM] in performance or non-performance of the services. As a minimum, [AECOM] shall be responsible for performing the following support related services for each construction contract: [(i) attendance at pre-bid, pre-construction and weekly job/progress meetings (¶7.7.1.1, 7.7.1.2, 7.7.1.3); (ii) preparing addenda and answering questions as directed by SEPTA within five calendar days (¶7.7.2); (iii) preparing technical evaluations of bids and providing recommendations to SEPTA (¶7.7.3); (iv) coordinating, reviewing and responding to submittals/shop drawings (¶7.7.4); (v) provide change order support (¶7.7.5); (vi) providing technical support and design clarifications (¶7.7.6); (vii) providing value engineering support (¶7.7.7); (viii) providing material and equipment testing

support(¶7.7.8); (ix) performing special inspections of structurally significant building components (¶7.7.9); (x) performing site inspections and resolve any design related constructability issues (¶7.7.10); (xi) inspecting the substantially completed work of the contractor (¶7.7.11); and (xii) correcting and updating as-built drawings (¶7.7.12).] (Contract, Exhibit 1, ¶7.1.1; ¶7.7, CAE 52).

- g. the total cost of all three phases will not exceed twenty one million three hundred sixty-two thousand eight hundred and sixteen dollars and twenty eight cents (\$21,362,816.28), the "Total Contract Price." (Contract, CAE-4, ¶7);
- AECOM will perform design services, as necessary, within the project budget of \$340,000,000 set forth in the Contract for the MSER Project. (Contract, CAE-18, ¶32).
- i. AECOM will perform an in-depth subsurface investigation in the settlement area in the vicinity of 63rd Street Station; and at any location from which subsurface information may be needed to proceed with the design. AECOM will perform subsurface investigation as necessary to perform conceptual engineering of the single column bents. (Contract, Exhibit 1, ¶7.3.1.4).
- j. AECOM undertake "conventional topographical surveys to verify or determine the condition, nature, dimensions, elevations, grades and locations of all necessary facilities within the limits of the proposed physical work or sufficiently adjacent thereto as to be directly affected by the proposed work. The surveys shall be performed in adequate detail for the preparation of preliminary and final design

documents, and to establish baseline and benchmark controls and offset ties for subsurface investigations and the construction of the project. Street/structure clearances at each column line shall be recorded. Lines and grades shall be developed in accordance with the U.S.G.S. horizontal and vertical controls. City stone benchmark elevations, based on city datum as per City Survey District Standards, shall be referenced and tied to the baseline. Field work shall be performed during the time period allocated by SEPTA, and under the protection of flagmen supplied by SEPTA." (Contract, Exhibit 1, ¶7.3.5.1).

- k. AECOM "undertake detailed structural surveys of the MSE superstructure and foundations, if required, to verify or obtain all dimensions, clearances, details, etc., not shown on the available as-built drawings in sufficient detail to produce preliminary and final design documents for the construction of this project. (Contract, Exhibit 1, ¶7.3.5.2).
- 1. AECOM will perform a constructability review for the schemes associated with each guideway system. (Contract, Exhibit 1, ¶7.3.3.2).
- m. AECOM will be liable for and defend, indemnify and save harmless SEPTA
 "from and against all loss, costs or damage, liability and expense, including
 counsel fees, whether or not arising out of any claim, suit or action at law, in
 equity or otherwise, of any kind or nature whatsoever, due to the negligence or
 wrongful or incompetent act or omission of [AECOM], its officers,
 subconsultants, subcontractors, and/or their agents, servants, workmen or
 employees, which may be imposed upon, incurred by or asserted against SEPTA."

(Contract, CAE-14, ¶23(a)).

- 53. Further, the Contract lists the names of personnel who would perform the services contained therein. (Contract at ¶5, CAE-3-6/94).
- 54. Ultimately, Samuel Pickard ("Pickard") was the Project Manager for AECOM for the MSER Project and was in charge of construction support issues. Pickard was the structural engineer at AECOM with primary responsibility for addressing structural questions.
- 55. Brian Osmundson ("Osmundson") was a principal engineer for AECOM on the MSER Project, and was charged with the responsibility to review and respond to submittals assigned to him by Jacobs.

AECOM's Material Failures

AECOM was responsible for numerous material design deficiencies which constrained the MSER Project, including defects related to guideway deck width, structural steel girder camber, rail profile, contact/third rail location, fastener fixation, plinth design and placement of reinforcing steel. These design errors and omissions not only caused contractor delays but also increased the MSER Project costs substantially. Significantly, the survey data provided by AECOM was incorrect and/or incomplete and insufficient. AECOM is liable to SEPTA for damages resulting from the accuracy and/or sufficiency of survey data provided to the contractors as well as additional costs due to the insufficiency of the survey data. As a result of AECOM's design deficiencies, SEPTA incurred substantial additional costs, including, costs resulting from the defects in the design, costs of repair, diminution in value, materials escalation, costs resulting from delays and disruptions to the Project and cost overruns, including, defending against and settlement of the MSER Project contractors' claims.

<u>Survey</u>

- 57. The original survey control had been established by AECOM's surveyor, Chilton Engineering, Inc. ("Chilton") based upon the original design of the MSER Project. The design changed subsequently, yet AECOM continued to use Chilton's original design. Ultimately, AECOM removed Chilton from the Project.
- 58. Driscoll, the Foundations contractor, first encountered problems with the survey in December 2001.
- 59. On July 24, 2002, Jacobs requested that AECOM re-run the project survey traverse lines along the north and south sides of Market Street.
- 60. By the Fall of 2002, Jacobs' concerns regarding the survey information had not been alleviated. Jacobs advised AECOM on November 15, 2002 that it had only addressed four of the sixteen construction baseline points for the entire MSER Project and that no information had been provided relative to vertical survey control for the MSER Project. Jacobs advised further that AECOM's continuing delay in providing the necessary data inhibited Jacobs from performing proper quality assurance checking of physical construction, potentially impacted the work completed to date and posed continued impacts to ongoing construction.
- 61. In late 2002, AECOM identified errors in the layout of the MSER Project's survey baseline. Resolution of the matter was protracted and, during that time, the Cobbs Creek contractor, PKF, was directed to stop work on drilled caisson installation at a number of specific locations.
- 62. On December 27, 2002, Jacobs informed AECOM that both active contracts (Foundations and Cobbs Creek) as well as both bid-phase contracts (Guideway and Stations) all

contained incorrect survey information.

- 63. On March 25, 2003, Chilton provided survey data to AECOM. This information ultimately proved to be incorrect and incomplete.
- 64. On May 9, 2003, Jacobs advised AECOM of the impacts of its persistent delays on the MSER Project in responding to survey issues. Jacobs advised AECOM that the adequacy of staff and changes in AECOM's processing methods must be addressed to minimize potential contractor delays.
- 65. Because of the unresolved survey issues, Stop Work Orders were issued to PKF on the Cobbs Creek Contract on May 13, 2003 (Foundation 63-05S), May 27, 2003 (Caisson at 63-03S), June 6, 2003 (Caisson at 63-02N), June 18, 2003 (Drilled Shaft Cap 63-07S), June 23, 2003 (Drilled Shaft Cap 63-08S) and June 25, 2003 (Caisson at 63-02S).
- 66. On June 2, 2003, Jacobs urged AECOM to take the necessary steps to remedy all survey related issues and to avoid any further impact to the MSER Project.
- 67. AECOM then hired a new independent third-party surveyor, GTS Technologies, Inc. ("GTS"), to formulate the "best-fit" baseline survey. The best-fit baseline survey was the end-product of GTS' efforts which included a survey of all then-constructed pedestals (including anchor rod locations) for the entire Project.
- 68. On June 16, 2003, AECOM informed Jacobs that it had re-staked construction baseline survey points 8 and 9. However, Jacobs advised AECOM two days later that despite the resetting of survey baseline points 8 and 9, there were still a number of significant survey issues remaining. Jacobs strongly urged AECOM to adhere to its contractual requirements to establish the physical construction baseline and vertical datum points for the MSER Project and provide

accurate and up-to date plans for all contracts and to do so in an expedited manner to minimize further impact to the MSER Project.

- 69. AECOM's failure to timely resolve the survey issues resulted in numerous work stoppage orders and work delays and disruptions to several MSER Project contractors. Indeed, survey discrepancies were a major problem that had impacts on already completed work and future planned work.
- 70. By August 1, 2003, the survey issue had escalated to the point where Jacobs informed AECOM's Chief Operating Officer that although Jacobs had continued to work with AECOM over several months to resolve the survey issue, a solution had not been reached and correct information from AECOM's surveyor was not forthcoming.
- 71. In August 2003, Jacobs informed SEPTA that the survey design problems were impacting construction and the progress of the work.
- 72. The survey issue impacted several aspects of the work including caisson, foundations work and fabrication of the guideway sections as well as the realignment of deck sections on the Cobbs Creek Contract.
- 73. To avoid further delays to the MSER Project, and given that approximately twothirds of the foundations had been set, AECOM adjusted the design to suit these conditions.
- 74. On October 30, 2003, SEPTA provided PKF with the best-fit baseline survey control point coordinates and explained that the control points had been temporarily set with PK nails. At this time, AECOM was still working to assign final design coordinates for each of the baseline points along with best-fit baseline stationing equivalencies.
 - 75. On or about November 13, 2003, AECOM provided Jacobs with certain best-fit

baseline survey drawings to be forwarded to PKF.

- 76. The best-fit baseline survey data was furnished to the MSER Project contractors on November 17, 2003.
- 77. It was not until December 2, 2003 that the revised drawings G817-A and G818-A with the revised construction baseline points 8 and 9 were issued to PKF.
- 78. Similarly, the Stations contractor, MSC, experienced survey difficulties in laying out and locating the construction work as required by the plans and specifications as bid. MSC's surveyor, Copeland Surveying, Inc. ("Copeland") was unable to run a correct traverse to locate the intermediate survey control points.
- 79. On January 29, 2004, Copeland met with SEPTA representatives to try to reconcile its confusion over the location of some of the control points. Copeland needed to verify these control points so that it could then provide this survey information to MSC's steel fabricator, ABM, so that ABM, in turn, could commence its structural steel fabrication. MSC provided off-sets derived from the survey to ABM on February 18, 2004 so that detailing for the 56th Street Guideway steel could begin.
- 80. On or about February 17, 2004, MSC, through Copeland, informed Jacobs of discrepancies in the survey control points. MSC responded on February 23, 2004 noting discrepancies found during performance of an as-built survey at the 56th Street Station area. Specifically, Copeland found that the distance between control point 7 and control point 6 did not match what was shown on the contract drawings prepared by AECOM.
- 81. On March 17, 2004, based on these survey discrepancies, SEPTA suggested that MSC suspend steel detailing. Essentially, because Copeland was unable to replicate the survey,

MSC could not proceed with steel fabrication to the correct dimensions.

- 82. In June, 2004, SEPTA forwarded to MSC additional "points on line" along the line between baseline points 6 and 7, provided by AECOM. The provision of these points were intended to assist MSC in tightening the survey control traverse and network to be employed by MSC for execution of survey related tasks.
- 83. MSC continued to experience difficulty in replicating the survey. Subsequently, AECOM provided three additional "points on the line" between baseline control points 6 and 7.
- 84. On July 22, 2004, SEPTA approved shop drawings and ABM was allowed to mobilize its plant for the start of the critical girder steel fabrication.
- 85. As a result of the AECOM's survey control errors, SEPTA incurred substantial additional costs, including, costs resulting from the defects in the design, costs of repair, diminution in value, materials escalation, costs resulting from delays and disruptions to the Project and cost overruns, including, contract amendments, and defending against and settlement of the MSE contractors' claims.
- 86. AECOM is liable over to SEPTA by way of contribution and/or indemnification or otherwise for all damages sustained by SEPTA for AECOM's failure to provide accurate and sufficient survey data to the MSE contractors.

Structural Steel Girder Camber

87. The Cobbs Creek plans and specifications, as bid, contained significant design errors and omissions related to the camber of certain structural steel girders. The anticipated dead load cambers of the guideway structural steel girders as shown on the Cobbs Creek drawings, among others, were incorrect. Before the error was discovered, the girders were

fabricated to the incorrect camber dimensions. Ultimately, the camber on eight girders was designed incorrectly.

- 88. On August 5, 2003, AECOM notified Jacobs, that while reviewing the Contract drawings, it had discovered that it had miscalculated the design dead load camber for sixteen girders, girder spans 62-08 through 63-04. AECOM identified that the as-built camber for the already fabricated girders for spans 62-10, 63-01, 63-02 and 63-03 was insufficient and it would be necessary to rework the camber using heat cambering and jacking to obtain the required camber.
- 89. On September 26, 2003, PKF's steel fabricator, High Steel Structures, Inc. ("HSSI") stated that heating and jacking were not feasible and proposed refabricating the affected girders.
- 90. On October 7, 2003, AECOM took exception to PKF/HSSI's position that the girders needed to be refabricated.
- 91. By October 28, 2003, AECOM had determined that eight girders were acceptable as fabricated and only eight girders (spans 63-01 and 63-02) would require recambering. Design errors were the reason for this problem.
- 92. AECOM prepared a re-cambering procedure where measured heat would be applied to the girders and then an appropriate external force applied to induce the required new camber. AECOM submitted its revised camber procedure on October 28, 2003 to Jacobs for its use in evaluating the heat cambering. The revised camber procedure indicated that the cambers were developed based on simple span support conditions at jacking stiffeners and notes that this procedure requires only eight (8) of the existing fabricated girders to be modified.

- 93. As of November 11, 2004, girders with camber problems still required recambering due to AECOM's inaccurate original camber design. The camber design problem affected work scheduled to occur in 2005.
- 94. As a result of the camber design error, SEPTA incurred substantial additional costs, including, costs resulting from the defects in the design, costs of repair, diminution in value, materials escalation, costs resulting from delays and disruptions to the MSER Project and cost overruns, including, contract amendments, and defending against and settlement of the MSE contractors' claims.
- 95. AECOM is liable to SEPTA by way of contribution and/or indemnification or otherwise for all damages sustained by SEPTA for AECOM's design errors and omissions related to the structural steel girder camber information provided to the MSE contractors.

Guideway Deck Design

- 96. The Cobbs Creek plans and specifications, as bid, contained significant design errors and omissions in the design of the guideway decks, including insufficient width of the deck on the curved section west of 63rd Street.
- 97. In the Fall of 2002, Jacobs discovered that AECOM's design of the elevated decks would cause the subway trains to collide with the side concrete wall. The original design of the deck had to be revised to correct an error in AECOM's calculations which resulted in a redesign of the guideway deck.
- 98. On November 11, 2002, PKF submitted Request for Information ("RFI") No. 265 (Location of Walkway Stub Wall and 3rd Rail) which questioned available clearances for the trains through the curved section of the guideway. Distilled to essentials, RFI No. 265 identified

the fact that the deck sections were not wide enough to allow the trains to travel through the curved section of the guideway without striking the edge of the walkway/cable trough.

Resolution of the guideway width involved the issuance of revised design drawings, which ultimately delayed the development of the pour drawings and the subsequent construction of the prefabricated deck sections.

- 99. On November 27, 2002, PKF issued RFI No 297 "Guideway Haunch Heights" which questioned haunch requirements of additional reinforcement. AECOM eventually issued revised drawings for haunch reinforcement details, correcting the error. On December 4, 2002, a meeting was held to discuss numerous open RFI issues, including deck haunches, walkways, deflection joints, and other related omissions and discrepancies. On January 20, 2003, AECOM issued responses to RFI 265, RFI 297, and other information requested on the December 4, 2002 meeting. More design revisions were issued by AECOM to correct numerous errors or omissions, and correct design revisions which conflicted with construction work.
- 100. Consequently, on January 20, 2003, AECOM issued revised design drawings showing changes to the guideway decks. Further resolution of outstanding design-related issues delayed the development of the "pour" drawings until approximately the end of May 2003.
- 101. AECOM failed to timely respond to RFIs and submittals regarding the guideway deck design and this delay not only increased the project costs but also impacted the progress of the work.
- 102. As a result of the guideway deck design errors and AECOM's untimely response to RFIs and submittals, SEPTA incurred substantial additional costs, including, costs resulting from the defects in the design, costs of repair, diminution in value, materials escalation, costs

resulting from delays and disruptions to the MSER Project and cost overruns, including, contract amendments, and defending against and settlement of the MSE contractors' claims.

103. AECOM is liable to SEPTA by way of contribution and/or indemnification or otherwise for damages sustained by SEPTA for AECOM's design errors and omissions on the MSER Project.

Plinth Redesign

- 104. During rail fastener installation on the Stations Contract, the plinth concrete cracked around the threaded inserts when bolts were torqued causing hairline fractures that radiated outward. The plinth cracking warranted suspension of plinth construction until the cause could be determined. By the end of May 2005, it had been determined that a redesign of the plinths and allowable torque was necessary and those plinths constructed to the original design details were to be demolished.
- AECOM that they had observed cracks radiating from the vicinity of the Direct Fixation Fastener ("DFF") anchor bolts after the anchor bolts were torqued (i.e., tensioned). The affected spans on the Stations Contract were 56-04, 56-05, 56-06, 56-07 and 56-08. The cracking emanated at the track fastener insert locations and the cracks radiated in all directions with the majority of the cracks going to the nearest plinth edge. Approximately fifty percent (50%) of the installed plinths were experiencing this cracking.
- 106. Following a site investigation on May 13, 2005, the Stations contractor, MSC, was instructed to un-torque the fastener bolts to relieve the stresses on the concrete. MSC was told to continue with all work except for placement of concrete for the plinths. The Guideway

Contractor, PKF, was given the same instructions.

- 107. On May 26, 2005, plinth construction on both the Stations and Guideway Contracts was suspended until AECOM revised the plinth design.
- 108. The plinth cracking problem was caused by a design error related to improper specification of the fastener torquing values and inadequate edge distance for the direct fixation fastener inserts.
- 109. In order to resolve the problem and move forward with construction, SEPTA directed MSC to cast the plinths in continuous units of plus or minus four pads rather than individual pads in a longitudinal direction to resolve the inadequate edge distance issue.

 AECOM was expected to provide a preliminary design and a recommendation for fastener and guardrail torque values based on the design criteria for normal train operations and potential derailment by May 25, 2005.
- 110. On May 27, 2005, AECOM directed both PKF and MSC to demolish the as-built plinths on their respective spans.
- 111. AECOM transmitted revised plinth drawings for the following outages on the following dates: Stations Contract, Nine Day No. 1, June 3, 2005; Guideway Contract, Nine Day No. 2, June 9, 2005; Stations Contract, Nine Day No. 2, June 9, 2005.
 - 112. AECOM submitted revised bolt torque requirements on June 3, 2005.
- 113. Because of the plinth cracking issue, the June 2005 deck replacement work on the Stations Contract had to be postponed.
- 114. Additionally, on the Guideway Contract, PKF had to demolish and reconstruct plinths completed prior to the May 2005 stop work order.

- 115. The sizes of the plinths that supported the rails also changed in the Cobbs Creek Completion Contract bid documents, designed by AECOM. This change was made in order to accommodate increased edge distances for direct fixation fastener inserts.
- 116. As a result of the plinth design error, SEPTA incurred substantial additional costs, including, costs resulting from the defects in the design, costs of repair, diminution in value, materials escalation, costs resulting from delays and disruptions to the Project and cost overruns, including, contract amendments, and defending against and settlement of the MSE contractors' claims.
- 117. AECOM is liable to SEPTA by way of contribution and/or indemnification or otherwise for all damages sustained by SEPTA for AECOM's design errors and omissions on the MSER Project.

Location of Third Rail

- 118. As early as August of 2002, SEPTA was actively considering the relocation of the third rail from beneath the 63rd Street Station Platform (as-designed) to the centerline of the guideway. This relocation was intended to facilitate maintenance and eliminate electrical problems resulting from station platform washdown and snow melting from the platforms onto the energized rail below.
 - 119. Significantly, the third rail redesign drawings included the following:
 - a. Drawings W302 and W303 indicate the limits of the relocated third rail to extend from approximately Station 24+140 to 24+255.
 - b. Typical structural sections on S310, S311 and S313 indicate the limits of third rail relocation to extend through the limits of 63rd Street Station. At Bent 63-04, the

- third rails are shown mounted on the outside parapet walls, in accordance with the original design documents.
- c. Guideway Deck plans on Drawings S1322 through 1326 and S1332 indicate the center cable trough with cover had been deleted.
- d. Sections A and B on Drawing S1335-1 show revised deck concrete and reinforcing steel details at the deck centerline and fascia through station area(s).
- 120. In November of 2002, SEPTA directed AECOM to provide a cost estimate for relocating the third rail from beneath the platform at the stations to the center of the tracks. By March 31, 2003, SEPTA was still awaiting a cost estimate from AECOM.
- 121. The redesign of the third rail took AECOM many months. On July 31, 2003, the continuous span pour drawings (Phase 2) were on hold due delays in the contractors' receipt of the third rail revisions.
- 122. AECOM did not forward the revised third rail drawings to Jacobs until November 2, 2004, more than one year after the initial October 21, 2003 meeting regarding the first set of drawings for the revised third rail design.
- 123. Further changes to the location of the third rail were made to the Cobbs Creek design in February 2005.
- 124. To correct the design inadequacies, SEPTA had to issue additional cost change orders on the Stations, Guideway and Cobbs Creek Contracts.
- 125. As a result of the third rail design errors, SEPTA incurred substantial additional costs, including, costs resulting from the defects in the design, costs of repair, diminution in value, materials escalation, costs resulting from delays and disruptions to the Project and cost

overruns, including, contract amendments, and defending against and settlement of the MSE contractors' claims.

126. AECOM is liable to SEPTA by way of contribution and/or indemnification or otherwise for all damages sustained by SEPTA for AECOM's design errors and omissions on the MSER Project.

Rail Elevation Discrepancies

- 127. During the original Cobbs Creek Contract, AECOM realized that the existing rail elevation was ninety-four millimeters (94 mm) higher than the designed alignment for the new construction which, when combined with the different rail profile and rail bridge timber size requirements, resulted in a total difference of about 5.5 inches between the designed new structure and the existing rail.
- 128. Rail elevation variations for tie-ins would prevent an outage for construction in the affected areas.
- 129. Due to AECOM's design errors, SEPTA has had to change the rail elevation design to resolve this problem on the Cobbs Creek Completion Contract by (i) re-sequencing and increasing the length of track outages; (ii) widening the decks and revising the associated capacities; and (iii) revising the rail bridges.
- 130. In March of 2005, the rail elevation was one of several significant design issues that had negatively impacted the construction progress of the MSER Project.
- 131. As a result of the change in the rail elevation design, SEPTA incurred substantial additional costs, including, costs resulting from the defects in the design, costs of repair, diminution in value, materials escalation, costs resulting from delays and disruptions to the

Project and cost overruns, including, contract amendments, and defending against and settlement of the MSE contractors' claims.

132. AECOM is liable to SEPTA by way of contribution and/or indemnification or otherwise for all damages sustained by SEPTA for AECOM's design errors and omissions on the MSER Project.

Design Errors in Fixation of Fasteners

- 133. In the original Cobbs Creek Contract, fasteners were to be affixed to the track by grouting. The issue of the method of fixation, grouting or shims, needed to be resolved prior to permanent fixation to the tracks by the Cobbs Creek Contractor, PKF.
- 134. On February 19, 2001, Jacobs advised SEPTA that the contractually specified use of grouting to affix fasteners presented a design problem that would make it impossible for PKF to erect the preassembled structural assemblies on the curved section of the guideway, within final track tolerance.
- 135. The use of grouting was ultimately revised for the Cobbs Creek Completion Contract by replacing grout pads with permanent shims.
 - 136. The change from grouting to shims was not initiated until May 2005.
- 137. This portion of the MSER Project remained unconstructible as of January 6, 2006, based on AECOM's continuing failure to resolve the issue with the specified epoxy grout for the fasteners, while the proposed use of shims remained under review.
- 138. As a result of the design error in the fixation of fasteners, SEPTA incurred substantial additional costs, including, costs resulting from the defects in the design, costs of repair, diminution in value, materials escalation, costs resulting from delays and disruptions to

the Project and cost overruns, including, contract amendments, and defending against and settlement of the MSE contractors' claims.

139. AECOM is liable to SEPTA by way of contribution and/or indemnification or otherwise for all damages sustained by SEPTA for AECOM's design errors and omissions on the MSER Project.

Error in Design of Reinforcing Steel

- 140. Shortly following commencement of construction of the precast deck segments on the Stations Contract, the Stations contractor, MSC, discovered problems with the fit and configuration of the reinforcing steel in the precast deck segments. MSC was to place the reinforcing steel immediately following the placement of the formwork.
- 141. MSC informed SEPTA of the design issues related to the placement of the reinforcing steel on December 29, 2004. According to MSC, the space was inadequate to fit the reinforcing steel, particularly the top transverse double hook bars.
- 142. MSC's December 29, 2004 RFI launched a series of exchanges. Ultimately, after more than six weeks without a resolution of the issue from AECOM, MSC provided a solution that AECOM accepted: MSC modified the reinforcing bars, at additional time and cost, in order to be able to pour concrete for the two precast deck segments (girders 56-09 and 56-08).
- 143. As a result, MSC was able to pour concrete on February 9 and February 14, 2005.

 MSC completed its deck pours on March 31, 2005.
- 144. As a result of the design error in the placement of reinforcing steel, SEPTA incurred substantial additional costs, including, costs resulting from the defects in the design, costs of repair, diminution in value, materials escalation, costs resulting from delays and

disruptions to the Project and cost overruns, including, defending against and settlement of the MSE contractors' claims.

145. AECOM is liable over to SEPTA by way of contribution and/or indemnification or otherwise for all damages sustained by SEPTA for AECOM's design errors and omissions on the MSER Project.

Foundations

- 146. On the Stations and Cobbs Creek Contracts, respectively, there were various foundation changes caused by AECOM's design errors and omissions, including, but not limited to: 60th street foundation changes; bedded cribbing foundations for false work; changed/additional requirements to construction of caissons.
- 147. On the Stations Contract, MSC incurred additional costs and was delayed in installing the 60th Street Station foundations due to AECOM's defective design documents and unanticipated subsurface obstructions. AECOM was required by Contract to perform preconstruction surveys to identify such obstructions. In addition, MSC encountered several unidentified utility conflicts resulting in disruption during foundation construction at various stations.
- In 2004 and 2005, MSC discovered conflicts in AECOM's foundations design, including discrepancies between the foundation for the new 60th Street Station and structures located on adjacent property owned by others, dimensional discrepancies in AECOM's foundations design, problems with the design of excavation support causing settlement of adjacent building foundations, alignment errors between the new station building and the platforms, and grade beam design issues.

- 149. AECOM also failed to timely resolve unforeseen and changed conditions resulting from contaminated soils that were encountered at the worksite, including, 60th Street Station.
- 150. These design discrepancies with the foundations at 60th Street Station not only prevented MSC from completing its foundation work at 60th Street Station until April 2006 but also delayed MSC's start of steel erection and other critical activities. The delays at 60th Street caused delays to the start of MSC's work at the remaining stations located at 52nd Street and 46th Street.
- 151. On the Cobbs Creek Contract, PKF incurred substantial cost due to change in means and method imposed by AECOM not stipulated in contract. Specifically, PKF encountered unstable soils in the Cobbs Creek section which were not disclosed in the bid documents for the Cobbs Creek Contract.
- 152. Because of the unstable soil conditions, PKF was ordered to stop drilling deep foundations until all deep foundations already drilled were poured with concrete. As a result, PKF was not only delayed in the progress of its work but also incurred substantial additional expense to perform the work.
- 153. As a result of these discrepancies in and problems with AECOM's foundations design, SEPTA incurred substantial additional costs, including, costs resulting from the defects in the design, costs of repair, diminution in value, materials escalation, costs resulting from delays and disruptions to the Project and cost overruns, including, defending against and settlement of the MSE contractors' claims.
 - 154. AECOM is liable to SEPTA by way of contribution and/or indemnification or

otherwise for all damages sustained by SEPTA for AECOM's design errors and omissions on the MSER Project.

Other Design Changes

- 155. Additional design errors and omissions impacted the progress of the work and delayed the MSER Project. These errors and omissions necessitated the following changes, *interalia*:
 - a. Additional/changed requirements to continuity plate bolt up procedures.
 - b. The strengthening of precast walkways troughs and covers;
 - c. A redesign of the west abutment, including an easement to allow necessary access;
 - d. Revisions to south side drainage system to avoid utility conflicts and including an easement;
 - e. Changes to edge beams, without which outages would not have been granted;
 - f. Addition and strengthening of stiffener plates at steel guideways;
 - g. Increase in grade of temporary steel from 250 to 345;
 - h. Revised treatment of existing ductbank and manholes;
 - i. Improved access at driveway at the Wilner Property;
 - j. Revised construction sequencing at 63rd Street Station;
 - k. Multiple architectural, electrical and mechanical changes to the stations;
 - 1. Addition of elevator shaft liners and fireproofing at elevator hoistways;
 - m. Revisions to train control systems;
 - n. Revisions to electric traction.

- o. Additional corbels at thirteen closure pour locations.
- p. Design changes to rail bridges.
- q. Design changes to walkway cover plates and handrails.
- r. Miscellaneous station structural steel design issues, including, but not limited to issue with: platforms; canopies; roofs; elevators; escalators; and stairs.
- aforementioned design issues in the drawings and specifications. Specifically, AECOM failed to respond timely to Requests For Information and submittals. AECOM's protracted turnaround time in responding to RFIs and submittals for the MSER Project delayed the progress of the work and was detrimental to the efficient and planned flow of the work.
- 157. AECOM's errors and omissions have impacted the MSER Project by not only causing SEPTA to incur substantial additional costs, including, costs resulting from the defects in the design, costs of repair, diminution in value, materials escalation, delays and disruption to the MSER Project, but also by exposing SEPTA to claims and potential claims from its MSER Project contractors, causing SEPTA to incur substantial additional cost in defending against and settling those claims.
- 158. Further, SEPTA has incurred significant additional costs due to AECOM's Amendments to the Contract, all of which exceed the funding limitations set forth in the Contract.
- 159. Further, SEPTA has incurred additional costs for out-of-scope work undertaken by Jacobs arising out of AECOM's design deficiencies in the Contract documents.

COUNT I – BREACH OF CONTRACT

- 160. SEPTA hereby incorporates by reference the averments of Paragraph 1 through 159 as if fully set forth herein.
- 161. As more fully set forth in the preceding Paragraphs, AECOM materially breached the Contract by failing to use reasonable skill in the performance of its duties under the Contract.
- 162. As more fully set forth in the preceding Paragraphs, AECOM materially breached the Contract by:
 - a. Failing to provide SEPTA with complete and accurate design documents;
 - b. Breaching its implied warranty that its plans and specifications were accurate and complete;
 - c. Failing to disclose known material deficiencies within its design documents in the bid documents and by withholding this information from SEPTA and the MSE contractors during the bidding and construction phases of the Project;
 - d. Failing to timely process RFIs and submittals for the MSER Project;
 - e. Breaching its duty of good faith and fair dealing;
 - f. Failing to timely resolve design issues in its drawings and specifications;
 - g. Causing financial impacts to SEPTA on account of AECOM's design deficiencies; and
 - h. Failing to perform all other duties and obligations under the Contract and required under the law.
 - 163. At all times material hereto, SEPTA has performed fully pursuant to the Contract.
 - 164. As a result of AECOM's breaches of the Contract, SEPTA has incurred and will

continue to incur damages in an amount in excess of \$50,000, including, (i) costs resulting from the defects in the design; (ii) costs of repair; (iii) costs resulting from delays and disruption to the MSER Project; (iv) cost overruns, including, costs incurred in defending against and settling MSE contractor claims; (v) lost revenues; and, (vi) costs as a result of economic injuries to third parties, including, adjacent property and business owners and contractors.

WHEREFORE, plaintiff SEPTA respectfully requests judgment in its favor and against defendant AECOM in an amount in excess of \$50,000, as well as interest, costs of suit and other such relief as the Court deems is proper and just in the circumstances.

<u>COUNT II – PROFESSIONAL NEGLIGENCE</u>

- 165. SEPTA hereby incorporates by reference the averments of Paragraph 1 through 164 as if fully set forth herein.
- 166. At all relevant times, AECOM owed a duty to SEPTA to exercise reasonable skill, care and diligence in the course of preparation of plans and specifications, site inspection and construction supervision.
- 167. At all relevant times, AECOM owed a duty to SEPTA to disclose errors and omissions in design or construction.
- 168. AECOM, a licensed professional, deviated from acceptable professional standards on the MSER Project.
- 169. As a direct and proximate cause of AECOM's breach of duties, SEPTA has suffered substantial damages, including, (i) costs resulting from the defects in the design; (ii) costs of repair; (iii) costs resulting from delays to the MSER Project; (iv) cost overruns, including, costs incurred in defending against and settling MSE contractor claims; (v) lost

revenues; and, (vi) costs as a result of economic injuries to third parties, including, adjacent property and business owners and contractors.

WHEREFORE, plaintiff SEPTA respectfully requests judgment in its favor and against defendant AECOM in an amount in excess of \$50,000, as well as interest, costs of suit and other such relief as the Court deems is proper and just in the circumstances.

COUNT III – CONTRIBUTION AND INDEMNITY

- 170. SEPTA hereby incorporates by reference the averments of Paragraph 1 through 169 as if fully set forth herein.
- 171. AECOM is solely liable over to SEPTA by way of contribution and/or indemnification for all damages as SEPTA is, and may be, required to pay arising from AECOM's design errors or omissions, pursuant to ¶23(a) of the Contract.
- 172. The MSE contractors have brought claims against SEPTA for design errors and omissions on the MSER Project.
- 173. SEPTA has incurred costs in defending against and in settling the MSE contractors' claims, and AECOM is solely liable over to SEPTA by way of contribution and/or indemnification for all such costs.
- 174. SEPTA has also incurred additional costs, including, costs resulting from the defects in the design, costs of repair, diminution in value, materials escalation, delays and disruption to the MSER Project, contract amendments and exposure to claims and potential claims from its MSER Project contractors.

WHEREFORE, SEPTA respectfully requests that AECOM contribute to and/or indemnify SEPTA for all costs and damages that SEPTA has incurred, including costs to defend against and settle claims brought by the MSE contractors for AECOM's design errors and omissions.

Respectfully submitted,

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