

Biscayne Building
19 West Flagler Street, Suite 220
Miami, FL 33130
Phone: (305) 375-1946
Fax: (305) 579-2656
www.miamidadeig.org

Office of the Inspector General
Miami-Dade County

MEMORANDUM

To: The Honorable Carlos Alvarez, Mayor

The Honorable Chairman Joe Martinez,
and Members, Board of County Commissioners

CC: George Burgess, County Manager

From: Christopher Mazzella, Inspector General

Date: June 20, 2005

Re: OIG Review of the Miami International Airport / North Terminal Development
Contract with Parsons Odebrecht Joint Venture (POJV)

I. Background

As part of its on-going oversight at the Miami-Dade Aviation Department (MDAD), and specifically of the North Terminal Development Program (NTD), the OIG has been carefully monitoring the County's efforts over the past several months to expedite the completion of the North Terminal. In response to a request by the Regional Transportation Committee that the OIG provide recommendations on the contract, on June 13, 2005, the OIG issued a memorandum to you stating that we would offer our comments concerning the proposed contract between the County and POJV as Managing General Contractor. The OIG's monitoring efforts to date have included, but are not limited to,

- Attending technical presentations regarding the baggage sortation system,
- Evaluating allegations of the use of sub-standard construction materials,
- Attending weekly claims review meetings,
- Fielding complaints from sub-contractors, etc.

The OIG has also closely monitored the American Airlines solicitation process for the replacement of Turner Austin. In general, we concluded that this process did not mirror the County's normal procurement process. Additionally, the actual negotiations were rushed at inopportune times despite the hundred plus hours spent negotiating. The process was also sloppy to some degree, but the entire process was transparent. There were other pre-qualified bidders eligible to bid the contract and the opportunity to protest was available to them as well. None of the firms have contacted the OIG to date and, to the best of our knowledge, none have posed any complaints relative to the proposed award.

It should be clearly understood that under ordinary circumstances, the departures noted in this procurement process from County procedures should not be condoned. Indeed, on a number of occasions, OIG staff raised its concerns with MDAD staff. However, the North Terminal project is in severe crisis with unknown consequences still to be reckoned with. In short, the NTD requires extraordinary measures if it is to be salvaged. As such, the OIG supports, in general, the County Manager's plan and contractual proposal for the North Terminal. But we do have several recommendations to help solidify the undertaking.

Because of our ongoing monitoring efforts in various areas of the NTD program, the OIG is able to provide a credible review of the proposed contract. To this extent, the OIG is documenting some of its observations relative to questions raised by the BCC and potential issues that we believe are not addressed clearly by the proposed contract and associated documents. The OIG's observations and questions are grouped in the following areas:

- AN EVALUATION OF THE PROPOSED PARSONS ODEBRECHT JOINT VENTURE (POJV) CONTRACT
- POTENTIAL PROBLEMS THAT MAY LINGER FROM THE AMERICAN AIRLINES CONTRACT WITH TURNER AUSTIN AIRPORT TEAM (TAAT)
- WHETHER MDAD IS READY TO ASSUME CONTROL OF THE NTD PROJECT

II. Contract Review

A. "Chokeholds":

At the June 8, 2005 Regional Transportation Committee (RTC) meeting where the North Terminal Development Consolidation Program (NTDCP) was discussed, both Commissioners Moss and Rolle stated that they wanted to make sure that this new contract had "chokeholds" in it to make sure that problems that had occurred with Turner Austin would not occur again. It is our belief that Commissioners Moss and Rolle wanted to insure that the responsibilities of the various parties are clearly spelled out in the contract and that the parties would face certain consequences if they failed to meet their responsibilities.

OIG Special Agents talked to Mr. John Cospers, Deputy Director of MDAD, about the "chokeholds" in the NTDCP contract. Mr. Cospers pointed out that under the current

contract that is in place, Turner claims no responsibility for the schedule and that there was no incentive for them to maintain the schedule. We concur with this assessment. He stated that it will be very different for POJV under the NTDCP because of the following conditions:

- the proposed contract for POJV is a lump sum contract and is not open-ended.¹ Section 11.1 of the contract notes that "...the total amount to be paid to the Managing General Contractor (MGC) shall not exceed...the Total Maximum Contract Amount without prior approval of the Board of County Commissioners..." The Total Maximum Contract Amount is listed as \$542,041,500 on the front page of the contract.
- each of the ten (10) projects (called Annexes) under the proposed contract will have a specific schedule and a specific budget and POJV is responsible for those schedules and budgets. Section 5.1.2 deals with Schedule Control; Section 5.1.3 deals with Cost Control and Estimating; Section 5.1.4 deals with Annex Accounting, and Exhibit 11 lists the Project Milestones.
- if there are no major changes made by the Owner, POJV is not compensated for extra time.²
- the contract has a Force Account Directive inserted which allows the County to direct POJV to start work on Change Orders on a time and material basis until the Change Order is actually signed and approved with a lump sum amount. This is specified in Exhibit 22, Owner's Clarifications, item #4 as well as in Exhibit 18.

In view of the above, we believe there are sufficient "chokeholds" to assign responsibility, if there is adequate contract administration, as will be discussed in greater length later.

B. Risk:

In the June 8, 2005 RTC meeting, various Commissioners raised the question about the County's exposure to risk in regards to the schedule and the budget for the NTDCP. As noted above in Section II (A), the Managing General Contractor is responsible for the schedule and budget of each of the ten (10) Annexes (projects) under the contract.

Section 4.4 of the contract states in part: "...Managing General Contractor shall be responsible for the complete performance for all of the work under the Contract..."

¹ This proposed contract does, however, have five allowance accounts totaling \$113 million.

² This does not include excusable delays.

Since there was no perceived risk from TAAT's perspective, any contractual risk under the POJV contract would qualify as a "chokehold," if enforced.

C. Termination of POJV:

In the present contract, the County did not have privity with TAAT and, therefore, could not terminate them. On the other hand, in the proposed contract, the County may terminate POJV although there will be associated costs, which is standard practice.

Section 14 of the NTDCP contract allows the County to cancel the contract or terminate the contract with POJV under certain circumstances. In addition, Section 4.20.8 of the contract states in part: "...breaches of clauses in contract...may be grounds for...debarment..."

D. Construction Inspection Services (CIS):

The OIG does not have a clear understanding of how CIS services at the North Terminal will be provided. There needs to be a clear delineation of responsibilities between the construction architect and the construction inspector. The OIG notes that the Commission on Ethics (COE) has written numerous opinions on this issue, stating that it is a conflict of interest for an Architect to also be responsible for the inspection of work which that Architect previously designed. For example, COE Advisory Opinion #04-54 states in part: "...In a series of opinions, the Ethics Commission has opined that certain contractual arrangements create an inherent conflict of interest and should be determined prior to award. For example, a conflict exists if a contractor has overlapping responsibilities on different phases of the same project [i.e. AE on one phase of the project and serving as value engineer, CIS or CM partner on another phase of the project..." (emphasis added). On Advisory Opinion #00-146, the COE states in part: "...[the firm] may not serve as inspector on any portion of the project on which they previously did design work..." On Advisory Opinion #00-129, the COE states in part: "...the firm should not work on any portion of the project on which they previously worked because of the conflict between the roles of designer and inspector..."

Currently, on the South Terminal project, the County uses a third party consultant (Mactec Engineering and Consulting, Inc.) to provide the CIS. The OIG concludes that the County should employ an independent third party to be used on the NTD, similar to the South Terminal arrangement.

E. Participation of Small, Minority and/or Disadvantaged Business Enterprises:

The original NTD contract between American Airlines and Turner Austin had Community Small Business Enterprise (CSBE) goals. According to the Department of Business Development (DBD), the CSBE goal was 16.72%. This goal amounted to \$107,034,970 out of the total dollar value of contracts of \$640,206,520 through April 2005. The DBD

stated that, as of April 2005, American Airlines and Turner Austin had paid \$107,310,210 or 16.76% to CSBEs.

The agreement with American Airlines on the North Terminal also had some minority goals pertaining to Professional Services. According to the DBD, these goals were 10% Hispanic, 10% Black, and 7% Women. The DBD indicated that as of April 2005, American Airlines had paid \$18,882,253 or 14.7% to Hispanics, \$13,844,251 or 10.8% to Blacks, and \$7,165,208 or 5.6% to Women in the Professional Services portion of the NTD work.

The proposed contract with POJV does not have any CSBE or minority goals. MDAD is planning to request Federal funding for portions of the NTDCP work and thus can only consider applying Disadvantaged Business Enterprise (DBE) goals on the project. The Minority Affairs Division of MDAD has reviewed the NTDCP and recommended a DBE goal of 17.3% on the project. According to MDAD, POJV has agreed to accept the goal of 17.3% DBE participation on the NTDCP project and this is stated in Special Provision 1 of the contract.

III. The Carry Over Problems

The previous arrangement between the County and American Airlines had problems that may linger if they are not properly addressed. These include:

- Design team weaknesses and design document flaws,
- An understaffed MDAD oversight team.

These issues remain as MDAD attempts to move forward in its completion of the North Terminal.

A. Design Weaknesses:

The management oversight function will be assumed by MDAD, which will replace American Airlines. As with any construction project, the Architect/Engineer (A/E) plays a significant role. American Airlines managed the Design Professionals (DP) in the previous contract. In the new contract, the existing A/E contracts will be managed by the County. Therefore, a source of the design team weaknesses that plagued the previous contract will remain in the new contract. There have been significant problems related specifically to design, i.e. the cracked concrete slab for the Automated People Mover (APM) maintenance facility. The contractor expressed concerns that if built according to the A/E's plans, the concrete slab would crack. The concern was not addressed and the slab cracked. The slab cannot be repaired and needs to be replaced.

Howard Needles Tammen and Bergendof (HNTB), the project's bond engineer, has attributed the financial loss associated with the NTD program to MDAD and American

Airlines at 52% and 48%, respectively (See Attachment 1). Among other things, this loss was directly attributable to design flaws and inadequate planning. American Airlines has agreed to pay the County \$105 million over a 10-year period and acknowledges its role in the loss. While it is commendable that American Airlines will make these contributions, there still needs to be a thorough evaluation of American's role as Manager of the Design Professionals (DPs) in the previous contract. This undertaking is not meant to expose American Airlines' mismanagement or poor performance as a Manager of the DPs, but rather forces MDAD to determine effective strategies as it assumes the role of managing the A/E's going forward.

MDAD management has also stated that it will be assuming the Corgan Team's (Corgan) contract. Corgan functioned as American's Consultant, managing five (5) primary architects and thirty-nine (39) secondary architects. These consulting services were a weak link in the project's chain of events. (See Attachment 1) There are numerous documented incidents (included in Attachment 1) that are directly attributed to Corgan's poor coordination, phasing, and planning efforts. According to management, Corgan has been paid in excess of \$20 million dollars.

As of the writing of this memo, MDAD has not defined Corgan's role but is diligently working with these same A/Es to make the NTD architectural plans complete. We note that the OIG was recently provided a draft Table of Organization that is heavily staffed by the Corgan Team. The OIG wonders if this strategy is prudent given Corgan's past performance on the previous contract.

B. Understaffed Oversight Team:

Until a year ago, there was only one (1) MDAD individual dedicated full-time to performing the NTD program oversight function at MDAD.³ According to MDAD management, an estimated 25-30 employees (DAC and others) have been assigned since last year to assist this individual with the oversight function. On June 16, 2005, no Table of Organization for the current oversight team was available. The future oversight team that is contemplated may include 60-70 people according to MDAD management. However, at the NTD, the OIG has observed only four (4) actively involved individuals who have been either continuously aware of issues, provided answers, or worked through difficult problems. While others may exist, their roles are not prominent.

As noted above, the Table of Organization that depicts MDAD's future management oversight role is in draft form. MDAD management would prefer County employees to fill these positions. This is a valid concept and cost savings strategy. However, at last tally, MDAD's latest operational budget directive dated 06/05/05 calls for the elimination of a net

³ MDAD's South Terminal Oversight Staff has been comprised of an average of 25 positions since inception, mostly comprised of Dade Aviation Consultant staff.

one hundred fifty-eight (158) positions within MDAD. This net figure includes 16 new (additional) positions. The 16 additional position descriptions do not correspond with positions required to perform the NTD oversight function. The OIG is concerned that the NTD oversight role needs to be more fully developed and discussed within the department. Indeed, this oversight function should be clearly in place at a minimum of 30 days prior to the implementation of the new NTP. If consultants are used to perform the oversight function, flexibility should be built into the agreements that will allow County personnel to be phased in. In addition to developing the role of the NTD oversight team, these positions must be filled with competent professionals experienced in enforcing the “chokeholds” within the POJV contract provisions. Where will these positions be found?

IV. Other Issues

1. Why was the \$3 million dollars classified as a bond premium?

The front page of the contract contains a \$3 million bond premium that is improperly categorized. Attendees to the negotiations recall this \$3 million as being called a “lost opportunity fee.” The POJV team stated during the negotiations that bonding this job would diminish their overall bonding capacity and called this \$3 million a lost opportunity fee. They further explained that this would be the profit that they could have potentially made if their bonding capacity was not diminished. This figure was factored into the contract unsupported and unsubstantiated, and it was represented in the contract as a “bond premium” instead of “lost opportunity fee.” This representation should be clarified. Section 1.42 of the proposed contract discussed the bond and associated costs.

2. Is the proposed schedule available?

At a very late stage, exhibits were removed from the proposed contract that included actual dates associated with the design completion of each of the 10 projects within the NTD program. According to MDAD, the reason the dates were removed was to cut down on redundancy and to eliminate an apparent conflict with another document. The OIG is not sure if the integrity of the design completion dates remains. If not, this gives rise to the possibility of delay. In short, the OIG’s concern is with the apparent lack of specific design completion dates for the ten projects (annexes) under the NTD.

In a preliminary version of the NTDCP contract, exhibit #4 listed specific calendar dates for each of the projects, stating that these dates identified “design completion of the 100%, permittable accurate and complete ready for construction contract documents.” For example, the design completion date for project number 740-A “C-D Federal Inspection Services” is identified as November 15, 2005. (See Attachment 2)

In the “Final” version of the NTDCP contract, exhibit #4 has been changed. Instead of listing a specific date for design completion, the exhibit now lists the date as “calendar days

after program NTP [Notice to Proceed].” For example, the design completion date for project number 740-A “C-D Federal Inspection Services” is now identified as “175 days” [calendar days after NTP]. (See Attachment 3)

The OIG is concerned that this change creates a situation where there is uncertainty and a lack of specific accountability for the due date for production of documents that are integral to successful and timely completion of the NTDCP. According to contractual language, the County is responsible for the “Overall Capital Program Schedule.”

3. POJV has responsibility for individual project schedules but not the overall program schedule.

The OIG notes that the contract documents specify that the MGC is responsible for the schedule on a project by project basis, but not responsible for the project’s overall schedule. The OIG believes that this arrangement will cause uncertainty and confusion as to which party is responsible for schedule problems and hamper the ability to properly allocate responsibility.

4. Quality Control

Another improvement needed is a more extensive Quality Control/Quality Assurance (QC/QA) program. This program, if managed effectively, can mitigate issues of inferior constructability. The current contract provides only one QC/QA person for the entire program. This individual is also responsible for the South Terminal and only recently became available for North Terminal QC/QA.

The successful completion of the North Terminal Project is an integral component of the future for MIA and this community. Every effort must be made to achieve this end. As this memorandum outlines, there are areas in which MDAD can improve management oversight of the implementation and administration of this contract which are essential requirements for the successful completion of the NTD project. The OIG will remain committed in its oversight role by dedicating additional resources to the NTD Program.

MEMORANDUM

TO: Carlos Bonzon, PhD, P.E.
Interim Director
Miami-Dade Department of Aviation

FROM: William C. Stuenkel
Associate Vice President
HNTB Corporation

RE: Responsibility for North Terminal Development Cost Overruns

Dear Dr. Bonzon:

In response to your request to use our best professional judgment for assessment of the subject concern, please find attached our initial assessment of this past January and updated as follows:

Source documents utilized:

- Overall Potential Cost Impacts in the amount of \$279.3 million provided by Corgan/PCI and verified by DAC with whom we have collaborated
- Two Schedule Deviation Reports published in March and November, 2004, that identify seven major program delays totaling 986 calendar days of delay

Our assessment centered upon the extensive delays that the NTD has suffered and that the American/Program Team should be responsible for the costs of those delays for which they had control of the root causes (four of the seven major delays) as follows:

- The Potential Cost Impacts identified time-related costs of \$136.0 million
- American/Program Team share of \$73.6 million, of which American's own share could be between \$30.1 and 57.6 million
- Potential Cost Impacts identified further exposure of \$59.9 million in potential additional delays

Currently, four of the six months of potential additional delay has been incurred due to continued poor construction performance for B-C Shell and the failed initial procurement attempt for the completing contractor. The root causes for both of these continuing delays were under the control of the American/Program Team. What was an exposure of \$59.9 million is now a certainty and should, therefore, increase the American/Program Team responsibility to \$133.5 million and American's own share to between \$90 million and \$117.5 million.

We are available to discuss/explain further.

Attachments

Responsibility for NTD Cost Overruns

ANALYSIS

Revised and Amended 1/25/05

Update 5/19/05

- I. Assessment is made at the NTD Program level, not at the project/contract level. Responsibility for cost overruns is assigned either to American/Program Team or it is assigned to MDAD. Assignment to American/Program Team is based on a finding that the root cause of cost overruns was under the control of the NTD Program. Assignment to MDAD is based on a finding that the root cause of cost overruns was not under the control of NTD and therefore unavoidable by the NTD.
- II. The source documents for this analysis are the two NTD Schedule Deviation reports by HNTB and the assessment of the Potential Cost Impacts Summary provided by Corgan/PCI and validated by DAC with HNTB collaboration. The Schedule Deviation reports document the discrete program level impacts to the NTD critical path which account for the significant time extensions to the program completion. A review of the Cost Impacts Summary reveals that most of the cost overruns are due to delays/time extensions to the program completion. Therefore, the premise of this analysis is that there is a fairly direct cause-effect relationship between the identified program level impacts and the identified cost overruns.
- III. The NTD Schedule Deviation reports identify the following major program schedule deviations:

Schedule Impacts:

Unforeseen – This category identifies 199 calendar days of impact to the NTD critical path due to unforeseen site conditions, both underground and within the existing terminal building, that required additional time to resolve design solutions and additional time to perform additional construction. The root causes of these schedule impacts were outside of NTD control, therefore the responsibility is assigned to MDAD.

Planning Flaw – The first program level construction planning flaw impacted the critical path by 186 calendar days due to failing to provide time/activities to coordinate FPL and BellSouth for the relocation of an electrical vault and telecom rooms in the CD Shell which was discovered after commencement of construction. Mitigation measures severely impacted the construction progress of the BC Shell. The root cause of this schedule impact was within NTD control, therefore the responsibility is assigned to American.

Contractor Performance – The first schedule impact due to contractor performance is 102 calendar days due to delivery of fuel to NTD more than three years late by the Concourse A Utility Corridor Part III project. This directly impacted AB Apron, AB Shell & Finishes and BC Infill due to delayed construction of power and communication distribution systems. The root cause of this schedule impact was outside of NTD control, therefore the responsibility is assigned to MDAD.

Contractor Performance – The second program level schedule impact due to contractor performance is 16 calendar days on BC Infill due to ruptured water main and termination of trade contractor. The root causes of these schedule impacts were within NTD control therefore responsibility is assigned to American. It should be noted that BC Shell construction has been on the program critical path and has suffered major delays (1-1/2 years) due to extensive revisions. American should investigate the root causes of these revisions to determine responsibility at the project level.

GC Delivery – The program schedule has been impacted by 96 calendar days due to the time required to change from the trade contracting method of delivering construction to the proposed general contractor method. This change was in response to the unsatisfactory performance of the trade contracting. Whereas the change is to mitigate further construction delays, this schedule has been impacted due to the delays in taking this action. The root cause was within NTD control therefore responsibility is assigned to American.

New Requirements – The Premise Distribution System revisions for advancing the drawings from 65% to 100% were implemented via change order to the BC Shell contractors which has impacted the critical path schedule by 21 calendar days. PDS is a transfer of scope from MDAD to NTD. The consequential schedule impact was not within NTD control therefore responsibility is assigned to MDAD.

Proportional Responsibility – Of the total schedule impacts identified above, NTD is responsible for 303 of the total 620 calendar days of impacts or 48%. MDAD is responsible for 322 calendar days or 52%.

TSA Schedule Impacts:

TSA Requirements – Implementation of the TSA requirements has impacted the critical path schedule by 400 calendar days. This schedule impact was not within NTD control therefore responsibility is assigned to MDAD.

MDAD is responsible for 100% of the TSA Schedule Impacts.

Schedule Validation:

Planning Flaw – During validation of the program schedule, a second impact of 10 calendar days was discovered on BC Shell due to the previously identified planning flaw. BC Shell construction is on the program critical path. This schedule impact was within NTD control therefore responsibility is assigned to American.

Contractor Performance – During the validation of the program schedule, a third schedule impact of 65 calendar days was discovered due to contractor performance on BC Shell construction, which is on the program critical path. This schedule impact was within NTD control therefore responsibility is assigned to American.

Construction Close Out – During validation of the program schedule, detailed interviews of MDAD requirements for construction close out revealed a requirement for an additional 93 calendar days to the program time for completion. For this analysis, the 93 calendar days are judged to be equivalent to 31 calendar days of impacts to the critical path. This schedule impact was not within NTD control therefore responsibility is assigned to MDAD.

Proportional Responsibility – Of the total equivalent of 106 calendar days of schedule impacts discovered during validation, NTD is responsible for 75 Calendar days or 71% and MDAD is responsible for 31 calendar days or 29%.

IV. Responsibility for Additional Cost Impacts:

- 1. Rebid CD Infill Interiors** – The original construction documents were discovered to be seriously flawed and construction was terminated. A replacement A/E was selected to produce proper construction documents for rebidding this finish work. The time consumed to correct these errors did not impact the program schedule critical path. The additional costs are additional design fees and additional construction costs due to the delay and rebidding. This additional cost impact was within the NTD control therefore responsibility is assigned to American.
- 2. Project Delivery** – The unsatisfactory performance of the trade contractor delivery method for construction has produced the decision to change the method of delivery to a completing general contractor approach. There are costs that are specifically associated with this decision that are not provided in the approved program budget. NTD has represented these costs as additional costs to the approved budget. A proper understanding is that this is the least, though additional, cost impact for completing the program. These additional costs are in NTD control therefore responsibility is assigned to American.

V. Additional Discussion of Time/Cost Impacts:

- 1. In summary, this analysis proportions responsibility for all of the time related cost impacts based on the identified program schedule deviations. It needs to be noted that some of the reported time related cost impacts may be due to project level time impacts that did not impact the program critical path. For instance, the extensive delays on D Extension and the contractor terminations on CD Shell and APM Maintenance Facility have not impacted the program critical path but may have contributed to additional costs for Extended Overhead/LIC's, Additional Design/CA Services, and CM Trade Staffing. These are some of the areas that American should look into for recovery of the cost impacts assigned to them.**

VI. American's Direct Responsibility for Cost Overruns:

- 1. Further analysis is presented to identify the portion of the cost overruns under NTD control that should be attributed to actions by American. The following examines each of the three major schedule deviations that were under NTD control.**
- 2. Cost Impacts due to GC/Project Delivery Strategy:**

- a. This new project delivery strategy was adopted due to the breakdown of the fast-track, trade bid approach to deliver construction within schedule and budget.
 - b. Whereas this strategy was adopted to improve the remaining construction performance, the timing of the decision and implementation of this change has caused additional delays and cost impacts.
 - c. Review of the circumstances provides strong indications that the breakdowns of the previous approach were 'masked' from MDAD's view, thus delaying the realization by MDAD that a new strategy was needed:
 - Effective cost/schedule control measures were not required at the contract level.
 - At the program level, frequent reallocations of program contingencies prevented early detection of cost overruns.
 - Significant change order work proceeded without notifying MDAD which hid the magnitude of the growing cost/schedule overruns.
 - d. The attached cost allocation analysis indicates **\$18.5 million** (13.5+5.0) of the forecasted NTD cost impacts resulted from this late decision and the full amount should be American's responsibility.
 - e. Also, **\$4.0 million** of the CIP Impacts is allocated to this late decision (15.5%/48.1% * \$12.5 million).
3. Cost Impacts due to Planning Flaw:
- a. This program planning flaw (that lead to the 'bag flip') was under the direction of the Program Manager however,
 - b. On 1/1/02 American executed a new PM contract which waived consequential damages for project controls without MDAD approval and,
 - c. This planning flaw predated 1/1/02 but was not revealed to MDAD until June, 2002, after the NTD determined the 'bag flip' mitigation measures.
 - d. American should bear responsibility for the difference between full recovery and any limited recovery due to the change in the PM contract on 1/1/02.
 - e. The attached cost allocation analysis indicates **\$27.3 million** (26.2+1.1) of the forecasted NTD cost overruns are attributable to this planning flaw. American's responsibility for a portion or all of this amount needs to be determined.
 - f. Also, **\$7.8 million** of the CIP Impacts is allocated as a consequence of this program planning flaw.
4. Cost Impacts for to the third and final major schedule deviation under the control of NTD is due to contractor performance. These cost impacts do not appear to be due to any action on American's part. Performance is the responsibility of the contractors and recovery should be made through provisions in the construction contracts. Recovery of liquidated damages will be limited to the amounts in the construction contracts. These amounts appear inadequate to cover consequential program cost overruns, however the amounts were recommended by the Construction Manager.
4. American's overall responsibility for the cost overruns cited could be as low as \$30.1 million and as high as \$57.6 million. However, the higher amount could be limited due to American's portion of the cost impacts due to the planning flaw.

ALLOCATION OF RESPONSIBILITY TO FUND/RECOVER COSTS FOR FORECASTED COST OVERRUNS							
NTD PROGRAM		100% AA/ Costs	NTD Recover	Add CIP Budget	Add AA Reserve	Add AA Reimb.	Comments
Schedule Impacts	1 Escalation/Market	\$ 33.6		\$ 33.6		\$ 33.6	
	2 PM/GM	\$ 28.8		\$ 28.8		\$ 28.8	
	3 Ext Ovhd/IC's	\$ 5.9		\$ 5.9		\$ 5.9	
	4 Addl Design, CA	\$ 6.3		\$ 6.3		\$ 6.3	
	5 CM Trade Staffing	\$ 3.1		\$ 3.1		\$ 3.1	
	6 Ext Warranties	\$ 2.1		\$ 2.1		\$ 2.1	
	11 Insurance Increase	\$ 4.5		\$ 4.5		\$ 4.5	
16 Tenant Relocation	\$ 3.0		\$ 3.0		\$ 3.0		
	Subtotal	\$ 87.3	\$ 42.0	\$ 87.3	\$ -	\$ 87.3	NTD Recover @ 48.1%
Additional Requirements	7 Variance To Date	\$ 14.5		\$ 14.5		\$ 14.5	
	8 Future To 15%	\$ 8.1		\$ 8.1	\$ 8.1		Excess Contingency
	10 MDAD Costs	\$ 5.4		\$ 5.4			Costs not incurred by AA
	12 Addl Scope	\$ 4.2		\$ 4.2		\$ 4.2	
	13 Addl Security	\$ 2.0		\$ 2.0		\$ 2.0	
	14 Fire Watch	\$ 1.5		\$ 1.5		\$ 1.5	
	17 Claims Consults	\$ 2.0		\$ 2.0		\$ 2.0	
18 CCTV	\$ 1.0		\$ 1.0		\$ 1.0		
	Subtotal	\$ 38.7	\$ -	\$ 38.7	\$ 8.1	\$ 25.2	
Rebid CD	9 Rebid CD Interiors	\$ 5.8	\$ 5.8	\$ 5.8		\$ 5.8	
Proj Delivery	16 Strategy	\$ 5.0	\$ 5.0	\$ 5.0	\$ 5.0	\$ -	Potential Impact
Schedule	19 Validation	\$ 12.0	\$ 8.5	\$ 12.0	\$ 12.0	\$ -	Potential Impact
	Subtotal NTD	\$ 148.8	\$ 81.1	\$ 148.8	\$ 25.1	\$ 118.7	
	Program Contingency Reserve	\$ (21.0)	\$ -	\$ (21.0)	\$ -	\$ (21.0)	
	Total NTD	\$ 127.8	\$ 81.1	\$ 127.8	\$ 25.1	\$ 97.1	
TSA	20 Requirements	\$ 91.6	\$ -	\$ -	\$ -	\$ 91.6	
NTD Exposure	21 Six Potential Items	\$ 59.9	TBD	TBD	TBD	\$ -	Potential Impacts
TOTAL PROGRAM		\$ 279.3	\$ 81.1	\$ 127.8	\$ 25.1	\$ 188.7	\$ 213.8 - 4th Amendment
CIP Impacts	28 TWI Impacts	\$ 12.0	\$ 5.8				
	TWI Scope	\$ 23.6	\$ -				
	29 DAC/MDAD/HNTB	\$ 10.9	\$ 5.2				
	30 Sec/Buss Impacts	\$ 3.2	\$ 1.5				
	Subtotal	\$ 49.7	\$ 12.5	\$ 49.7	\$ -	\$ -	
TOTAL NTD RECOVERY			\$ 73.6				
TOTAL CIP		\$ 177.5	\$ 25.1	\$ 188.7			AA Reimb. Incl. NTD Recovery

Schedule Analysis (HNTB Report Part II)		(CD's)	NTD		MD AD	
Schedule Deviations	Unforeseen	199	30.0%	\$ 26.2	32.1%	\$ 28.0
	Planning Flaw	186				
	Contractor Performance	102			16.5%	\$ 14.4
	Contractor Performance	16	2.6%	\$ 2.3		
	PDS Impacts	21			3.4%	
	GC Delivery	96	15.5%	\$ 13.5		
	Subtotal	620	48.1%	\$ 42.0	51.9%	\$ 42.4
Schedule Validation	Planning Flaw	10	9.4%	\$ 1.1		
	Contractor Performance	65	61.3%	\$ 7.4		
	Closeout (92 @ 33%)	31			29.2%	\$ 3.5
	Subtotal	106	70.8%	\$ 8.5	29.2%	\$ 3.5
TSA	Schedule Impacts	400			100.0%	
CIP Impacts	TWI Impacts	\$ 12.0	48.1%	\$ 5.8	51.9%	\$ 6.2
	DAC/MDAD/HNTB	\$ 10.9	48.1%	\$ 5.2	51.9%	\$ 5.7
	Sec/Buss Impacts	\$ 3.2	48.1%	\$ 1.5	51.9%	\$ 1.7

MIA NORTH TERMINAL DEVELOPMENT

REVIEW OF PROGRAM SCHEDULE-PART II

TASK 2:

V. NEW DETAILED SCHEDULE VARIANCE/REASONS

From the validation effort a number of significant deviations to the April, 2002 (RB48) have been established including planning logic flaw, overruns of construction schedules due to contractors' performance and the incorporation of the construction close out and commissioning procedures:

Schedule Update	RB-48	WG-64	WG-66	WG-70	WV-77
Data Date	01May02	01Sep03	01Nov03	01Mar04	01Oct04
Forecasted Completion	25May06	21May07	05May08	21Aug08	04Feb09
Cumulative Delay	0	361CD	712CD	820CD	986 CD
• Unforeseen Requirements	0	199CD	199CD	199CD	199CD
• Planning Flaw	0	165CD	186CD	186CD	196CD
• Contractor Performance	0	102CD	118CD	118CD	183CD
• GC Delivery	0	96CD	96CD	96CD	96CD
• TSA Requirements	0	0	292CD	400CD	400CD
• PDS Requirements	0	0	21CD	21CD	21CD
• Construction Close Out	0	0	0	0	92CD

Following is a detailed over view of the recommended variances found from the last reviewed NTD WG74 up date to the New Detailed Schedule:

	WG74 Scheduled Finish	WV77 New Detailed Scheduled Finish	Delta	Deviation/Reason
745-B B-C Infill Shell *	Dec 6, 2004	Feb 9, 2005	65 Cal Days	Contractor Performance of the work.
Program Remaining Work	Aug 21, 2008	Nov 4, 2008	10 Cal Days	Increased due to revised detailing of work activities.
Construction Close Out Work	Aug 21, 2008	Feb 4, 209	92 Cal Days	Increase due to introduced sequenced logic for project close out.

List of Design Milestones
Exhibit 4

The following are the dates which the Owner has incorporated into the Owner provided Summary Schedule, and which identify design completion of the 100%, permittable accurate and complete ready for construction Contract Documents for critical portions of the Overall Program and/or Project Milestones. Owner is responsible for achieving the below mentioned Design Milestones Dates.

	Project Number	Project Description	Design Completion Date
1	739 A	C-D Infill - Interior Finish-out Construction	May 23, 2005
2	739 C & 739 I	D Remodel Construction	July 13, 2005
3	740 A	C-D Federal Inspection Services	November 15, 2005
4	746 A	B-C Interior Finishes	May 23, 2005
5	746 I	B-C 3 rd Floor, AA Area Interior Finishes	January 25, 2006
6	747 B	A-B Infill Shell & Interior Finishes	May 16, 2005
7	756 A	Terminal Wide Improvement Construction	April 13, 2005
8	756 D	Terminal Wide Improvement Construction	April 13, 2005
9	756 E	Terminal Wide Improvement Construction	May 23, 2005

List of Design Milestones
Exhibit 4

Project Number	Project Description	Design Completion Date* (Calendar Days after Program NTP)
-----------------------	----------------------------	--

1	739 A	C-D Infill - Interior Finish-out Construction	1 Day
2	739 C	D Remodel Construction	50 Days
3	739 I	D Remodel Construction	50 Days
4	740 A	C-D Federal Inspection Services	175 Days
5	746 A	B-C Interior Finishes	1 Day
6	746 I	B-C 3 rd Floor, AA Area Interior Finishes	246 Days
7	747 B	A-B Infill Shell & Interior Finishes	1 Day
8	756 A	Terminal Wide Improvement Construction	1 Day
9	756 D	Terminal Wide Improvement Construction	1 Day
10	756 E	Terminal Wide Improvement Construction	1 Day

* These dates are estimates and are subject to adjustment by the Owner in accordance with Section 1.22 of the Contract Provisions.