

**Project Definition Sheets – Q5 Baggage**

7541 : T4 Post T5 Baggage Operation  
1851 : Post T5 Transfer Baggage System  
3798 : T4 Sorter Replacement  
3801 : T3 Integrated Baggage System  
3810 : System Baggage Cx refit T1 - T4  
4191 : Manual Handling Aids  
7969 : Terminal 4 Open Skies Baggage  
8747 : Baggage Integration  
8818 : Baggage Transition  
0615 : HBS VIVID replacement prog

## Header Information

<b>Project Name:</b>	T4 Airline Moves – Phase 1
<b>Name in Schedule</b>	7541 : T4 Post T5 Baggage Operation

## Project Overview, Objectives and Status

<b>Overview:</b>		
Description:	Baggage system upgrades to facilitate the Terminal 4 Airline Relocations Programme	
Ref. Drawings / Images: <i>(Refer to Appendix A)</i>	None	
<b>Objectives:</b>		
BAA:	<ul style="list-style-type: none"> <li>• Provide a robust &amp; reliable baggage operation within Terminal 4 that aligns with the functionality agreed under airline constructive engagement so that Airlines based in Terminal 4 are not considered to be at a commercial disadvantage</li> <li>• Provide facilities that support / facilitate the airline relocation strategy</li> <li>• Improve the efficiency of the direct product by reducing missed bags &amp; departure delays</li> </ul>	
Airline:	<ul style="list-style-type: none"> <li>• Service quality equivalence</li> </ul>	
<b>Status:</b>		
BAA Lead Team:	Airline Engagement:	Strategic Solution or DGS/IGS Stage
Capital & Solutions	Green	Construction

## Project Delivery

<b>Current Control Budget:</b>			
Total Capital Budget <i>(Constant Prices)</i> :			£8,800,000
<i>Refer to appendix B for cost information detail.</i>			
<b>Time:</b>			
Brief Decision:	Start on Site:	Completion on Site:	Operational Use Commences:
May / 2007	Oct / 2008	May /2009	May /2009
<i>Refer to appendix C for programme information detail.</i>			
<b>Assumptions:</b>			
The following points cover the significant delivery assumptions related to this project;			
<ul style="list-style-type: none"> <li>• This project was developed as part of the overall strategy to improve the Terminal 4 BHS during the optimal delivery window between the BA vacation to Terminal 5 &amp; the introduction of new airlines as part of the overall Heathrow Airline Relocations Programme.</li> <li>• Minimal operational disruption during implementation</li> <li>• The delivery programme has been based on completing the works in a timely manner to permit operational trials by others prior to implementing the Heathrow Airline Relocations Programme.</li> </ul>			
<i>Note: Assumptions stated here are to aid understanding and are not necessarily exhaustive.</i>			

## Operational Issues

<b>Financial Revenue and Operational Cost (Opex) Impact:</b>		
Revenue / Opex Cost	Revenue (+) /	Commentary:

Area:	Cost (-) Impact per Annum:	
		Assumed negligible.
<b>Impact on User Charges:</b>		<b>Not included in CIP 2009 Publication</b>
Estimated Per Passenger Cost Impact:		
Commentary:		
None.		
<i>Note: Impact on User Charge is subject to a number of complex variables and regulatory decisions and therefore information is indicative only.</i>		
<b>Assumptions:</b>		
The following points cover the significant operational assumptions related to this project;		
<ul style="list-style-type: none"> <li>The numbers of airlines &amp; handling agents will entail considerable changes to the baggage process / facilities. The number of handling agents has been assumed to be limited to four.</li> </ul>		

### **Areas of Disagreement**

The following points cover any significant areas of disagreement between BAA and the Airline Community regarding this project.
<ul style="list-style-type: none"> <li>Location of handling agents within baggage hall or satellite facilities</li> <li>Number of flight build make up segregations achievable not consistent with current operational processes</li> </ul>
<i>Note: Any disagreement noted must be read in the context of the airline engagement status shown above.</i>

**Appendix B: Project Delivery:** Cost Information:

**Project Information**

Project Name: T4 Post T5 Phase 1 & 2  
BCT No.: 7541 OP No.: 23046

**AFC Cost Information:**

*All information extracted from February 2009 month end process*

Base Costs:	£7,288,436	68 %
On-Cost:	£2,993,661	28 %
Risk (R1 Allowance only)	£402,719	4 %
Total (As entered into Artemis for Feb 09 Month End)	<b>£10,684,816</b>	

Commentary:

Total cost excludes £200k banked savings  
Only Phase 1 has been approved with a PER £5,616,501.00  
Phase 2 is unscoped with and AFC of £5,072,717.00.

## Header Information

<b>Project Name:</b>	Post T5 Transfer Baggage System - T5 to T3 to T1/HET
<b>Name in Schedule</b>	1851 : Post T5 transfer Baggage System

## Project Overview, Objectives and Status

<b>Overview:</b>		
Description:	An automated DCV transfer baggage system (for in gauge bags) to operate as an extension to the T5 system extending to provide a transfer link through to T3 and T1.	
Ref. Drawings / Images: <i>(Refer to Appendix A)</i>	Plan Layout with key dates	
<b>Objectives:</b>		
BAA:	<ul style="list-style-type: none"> <li>Passenger Service improvement (predictability of transfer baggage process including reduction in missed bag rates, reduction in minimum connection times)</li> <li>Business Improvements (income, health and safety and environmental efficiencies)</li> </ul>	
Airline:	<ul style="list-style-type: none"> <li>Predictability of transfer baggage process</li> <li>Reduction in missed bag rates</li> <li>Reduction in minimum connection times</li> <li>Reduced overall operating costs</li> </ul>	
<b>Status:</b>		
BAA Lead Team:	Airline Engagement:	Strategic Solution or DGS/IGS Stage
Capital & Solutions	Amber	Civil works/tunnelling - Construction Baggage & Buildings - Scheme

## Project Delivery

<b>Current Cost Budget:</b>			
Total Capital Budget ( <i>Constant Prices</i> ):			£255,700,000
<i>Refer to appendix B for cost information detail.</i>			
<b>Time:</b>			
Brief Decision:	Start on Site:	Completion on Site:	Operational Use Commences:
09 / 2007	02 / 2008	03 / 2012	08 / 2011
<i>Refer to appendix C for programme information detail.</i>			
<b>Assumptions:</b>			
The following points cover the significant delivery assumptions related to this project;			
<ul style="list-style-type: none"> <li>The capacity of the system will be 3000 bags per hour each way with a 15 min peak of 750 bags</li> <li>The current intention is that the Western Interface Building function will be located within an extended T3 Integrated Baggage building and will provide an integrated facility and system.</li> <li>Construction completion T5 to T3 on 31.08.11 and T3 to T1 on 31.03.12 defined as: The tunnel completed and fully equipped with M&amp;E services with the cart tracks installed and fully tested to meet the bag through put and 'in system time' trials (using test bags). Operational readiness will proceed after this completion date.</li> <li>At the T5 to T3 milestone completion date discharge from the tunnel at T3 will be onto docks for onward transport of transfer bags to the T3 baggage system as the new system will not be fully integrated until December 2011. Docks will also be used to load bags transferring from T3 to T5 by tunnel.</li> </ul>			

- Operational readiness will be carried out from 31.08.11 for the fully integrated system at T5C and the dock arrangement at T3. Operational readiness will then be carried out again at T3 from 31.12.11 when the new T3 Baggage system is complete and again from 31.03.12 for the fully integrated systems at T3 and T1

*Note: Assumptions stated here are to aid understanding and are not necessarily exhaustive.*

## **Operational Issues**

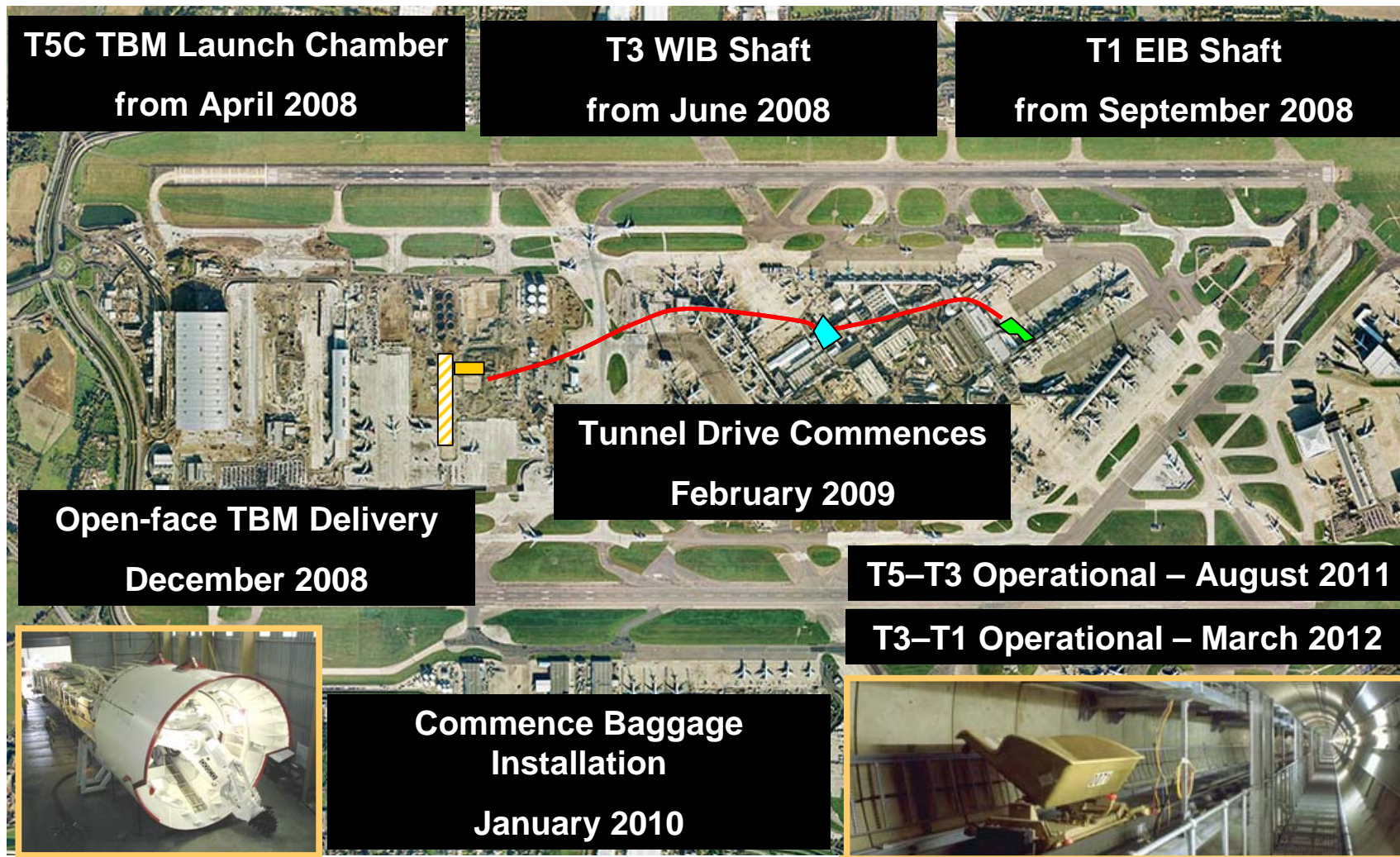
<b>Financial Revenue and Operational Cost (Opex) Impact:</b>		
Revenue / Opex Cost Area:	Revenue (+) / Cost (-) Impact per Annum:	Commentary:
Baggage Opex	c.£4m saving	Potential £4m pa saving on the current five terminal campus Inter Terminal Operation (ITO) van based baggage service after estimated tunnel opex costs taken into account. This would be reflected in the cost per bag charge
<b>Impact on User Charges: <span style="color: red;">Not included in CIP 2009 Publication</span></b>		
Estimated Per Passenger Cost Impact:		
Commentary:		
None		
<i>Note: Impact on User Charge is subject to a number of complex variables and regulatory decisions and therefore information is indicative only.</i>		
<b>Assumptions:</b>		
The following points cover the significant operational assumptions related to this project;		
<ul style="list-style-type: none"> <li>Overall saving in transfer baggage operation will be achieved but details of system down time contingency utilising ITO van operation still to be confirmed.</li> <li>Out of gauge transfer baggage ITO van service will remain between terminals and will be utilised in tunnel system down time contingency.</li> </ul>		

## **Areas of Disagreement**

The following points cover any significant areas of disagreement between BAA and the Airline Community regarding this project.
<ul style="list-style-type: none"> <li>Airlines have requested a 15 min peak of 1000 bags (against 750 bag agreed design capacity) for robustness in peak periods but all subject to simulation during design. Capacity model that was issued and agreed by the Connectivity Airline Working Group (appointed by JST) in August 2007, based on a statistical approach resulted in a 15 min demand result of 750 bags max which was expressed as a 3000 bag per hour capacity. The tunnel diameter and baggage system is sized on this capacity. The Oneworld audit dated October 2008 states that this approach is sound thus closing this issue.</li> <li>Star Alliance stated at the August 2008 Connectivity Airline Working Group that until the Eastern Apron Baggage strategy had been agreed they would not agree to the Eastern Interface Building baggage and building design. EIB basement location, already agreed in April 2008, and re-confirmed by Star Alliance at the August 2008 Airline Working Group</li> </ul>
<i>Note: Any disagreement noted must be read in the context of the airline engagement status shown above.</i>



**Appendix A: Overview: Plan Layout with key dates**



**Appendix B: Project Delivery:** Cost Information:

**Project Information**

Project Name: Post T5 Transfer Baggage System  
BCT No.: 1851 OP No.: 16701

**AFC Cost Information:**

*All information extracted from February 2009 month end process*

Base Costs:	£189,032,535	73 %
On-Cost:	£41,527,105	16 %
Risk (R1 Allowance only)	£29,303,367	11 %
Total (As entered into Artemis for Feb 09 Month End)	<b>£259,863,007</b>	

Commentary:

On-costs include a project specific insurance policy which is greater than usual for BAA Capital Projects (circa £3m).



## Header Information

<b>Project Name:</b>	T4 Sorter Replacement
<b>Name in Schedule</b>	3798 : T4 Sorter Replacement

## Project Overview, Objectives and Status

<b>Overview:</b>		
Description:	Asset replacement of Terminal 4 BHS existing sorters (SAL & SAR) with a single loop sorter	
Ref. Drawings / Images: <i>(Refer to Appendix A)</i>	None	
<b>Objectives:</b>		
BAA:	<ul style="list-style-type: none"> <li>• Provide a robust &amp; reliable baggage operation within Terminal 4 that aligns with the functionality agreed under airline constructive engagement:</li> <li>• Provide greater baggage operational reliability, flexibility &amp; maintainability</li> <li>• Fit with future terminal occupancy strategy – multiple occupancy post BA vacation</li> </ul>	
Airline:	<ul style="list-style-type: none"> <li>• Improved operational flexibility by the provision of any input to any output</li> </ul>	
<b>Status:</b>		
BAA Lead Team:	Airline Engagement:	Strategic Solution or DGS/IGS Stage
Capital & Solutions	Green	Construction

## Project Delivery

<b>Current Control Budget:</b>			
Total Capital Budget <i>(Constant Prices)</i> :			£5,900,000
<i>Refer to appendix B for cost information detail.</i>			
<b>Time:</b>			
Brief Decision:	Start on Site:	Completion on Site:	Operational Use Commences:
May / 2007	Oct / 2008	May /2009	May /2009
<i>Refer to appendix C for programme information detail.</i>			
<b>Assumptions:</b>			
The following points cover the significant delivery assumptions related to this project;			
<ul style="list-style-type: none"> <li>• This project was developed as part of the overall strategy to improve the Terminal 4 BHS during the optimal delivery window between the BA vacation to Terminal 5 &amp; the introduction of new airlines as part of the overall Heathrow Airline Relocations Programme.</li> <li>• Minimal operational disruption during implementation</li> <li>• The delivery programme has been based on completing the works in a timely manner to permit operational trials by others prior to implementing the Heathrow Airline Relocations Programme.</li> <li>• The T4 Open Skies Project &amp; Sorter Replacement will be delivered concurrently</li> <li>• Required to achieve US Carrier Screening solution within the main baggage hall</li> <li>• Enables other T4 baggage works including: <ul style="list-style-type: none"> <li>○ Additional flight build make up chutes</li> <li>○ Additional flight build reclaim</li> <li>○ Transfer feed onto front sorter</li> </ul> </li> <li>• The numbers of airlines &amp; handling agents will entail considerable changes to the</li> </ul>			

baggage process / facilities. The number of handling agents has been assumed to be limited to four.

*Note: Assumptions stated here are to aid understanding and are not necessarily exhaustive.*

### **Operational Issues**

<b>Financial Revenue and Operational Cost (Opex) Impact:</b>		
Revenue / Opex Cost Area:	Revenue (+) / Cost (-) Impact per Annum:	Commentary:
		To be developed.
See assumptions		
<b>Impact on User Charges: Not included in CIP 2009 Publication</b>		
Estimated Per Passenger Cost Impact:		
Commentary:		
None.		
<i>Note: Impact on User Charge is subject to a number of complex variables and regulatory decisions and therefore information is indicative only.</i>		
<b>Assumptions:</b>		
The following points cover the significant operational assumptions related to this project;		
<ul style="list-style-type: none"> <li>New sorter will deliver improvements in operational reliability &amp; reductions in maintenance costs.</li> </ul>		

### **Areas of Disagreement**

The following points cover any significant areas of disagreement between BAA and the Airline Community regarding this project.

None

*Note: Any disagreement noted must be read in the context of the airline engagement status shown above.*

**Appendix B: Project Delivery:** Cost Information:

**Project Information**

Project Name: T4 Sorter Replacement  
BCT No.: 3798 OP No.: 22489

**AFC Cost Information:**

*All information extracted from February 2009 month end process*

Base Costs:	£8,724,948	75 %
On-Cost:	£2,555,949	22 %
Risk (R1 Allowance only)	£389,764	3 %
Total (As entered into Artemis for Feb 09 Month End)	<b>£11,670,662</b>	

Commentary:

## Header Information

<b>Project Name:</b>	T3 Integrated Baggage System
<b>Name in Schedule</b>	3801 : T3 Integrated Baggage System

## Project Overview, Objectives and Status

<b>Overview:</b>		
Description:	Provide a single modern facility to process all T3 arrivals and departure baggage.	
Ref. Drawings / Images: <i>(Refer to Appendix A)</i>	None	
<b>Objectives:</b>		
BAA:	<ul style="list-style-type: none"> <li>• Service quality equivalence.</li> <li>• Improved safety.</li> </ul>	
Airline:	As BAA's	
<b>Status:</b>		
BAA Lead Team:	Airline Engagement:	Strategic Solution or DGS/IGS Stage
Capital & Solutions	Green	Options

## Project Delivery

<b>Current Control Budget:</b>			
Total Capital Budget ( <i>Constant Prices</i> ):			£234,100,000
<i>Refer to appendix B for cost information detail.</i>			
<b>Time:</b>			
Brief Decision:	Start on Site:	Completion on Site:	Operational Use Commences:
May / 2007	Enabling ~Aug 08	Nov / 2011	Jan / 2012
<i>Refer to appendix C for programme information detail.</i>			
<b>Assumptions:</b>			
The following points cover the significant delivery assumptions related to this project;			
<p>The project shall provide replacement T3 baggage handling facility which has;</p> <ul style="list-style-type: none"> <li>• A capacity aligned to 2026 forecasts</li> <li>• Provides like for like system functionality across the Heathrow campus</li> <li>• Provide screening and processing of baggage in line within European and USE (TSA) legislative requirements</li> </ul> <p>Provides a safe and efficient operating environment</p> <p>The project proposes to use new can management technology "automation" and proposes to phase the implementation of this technology in such that risk is limited. This new technology requires a new operating model and endorsement by the airlines.</p> <p>The existing system in Terminal 3 is very cheap to run but this is because it is of limited capacity and has significantly less functionality than that of the other terminals in Heathrow. An increase in functionality and step increase in capacity could increase the bag charge. Challenging targets have been placed on the designers in this regard.</p> <p>The project has been made aware of the challenges surrounding the post 2025 airport masterplan strategy. This masterplan imposes significant operational boundary restrictions on the logical site for the new baggage system.</p> <p>More detailed project objectives are;</p> <ul style="list-style-type: none"> <li>• To provide an integrated baggage system which provides integrated make-up facilities for direct and transfer in/out-bound baggage.</li> <li>• To provide a solution which has a modular expandable design construction</li> </ul>			

<p>philosophy in line with the phasing strategy.</p> <ul style="list-style-type: none"> <li>• To provide an Early Bag Store</li> <li>• To provide any input to any output functionality</li> <li>• To meet the H&amp;S requirements for a safe environment that meets BAA standards – including manual handling</li> <li>• To provide a HBS operation that is equivalent to those in other HAL terminals, in line with Department for Transport (DfT) requirements, which also provides OPEX savings.</li> <li>• To provide secure and reliable SAC &amp; SCADA systems, comparable to those in other Heathrow Terminals</li> <li>• To meet Heathrow’s intra-terminal transfer target as defined in the Heathrow Baggage Product Service Level Agreement.</li> <li>• To meet Heathrow’s inter-terminal transfer target MCT as defined in the Heathrow Baggage Product Service Level Agreement.</li> <li>• To provide expedite facilities.</li> <li>• To provide tug charging facilities in a suitable orientation and location to be agreed with the airlines</li> <li>• To provide airline office accommodation and appropriate levels of handling staff accommodation giving due consideration to impact of automation. Airline accommodation should be a “like for like” fitout specification with new for old replacements for equipment currently owned and maintained by BAA.</li> </ul> <p><i>Note: Assumptions stated here are to aid understanding and are not necessarily exhaustive.</i></p>
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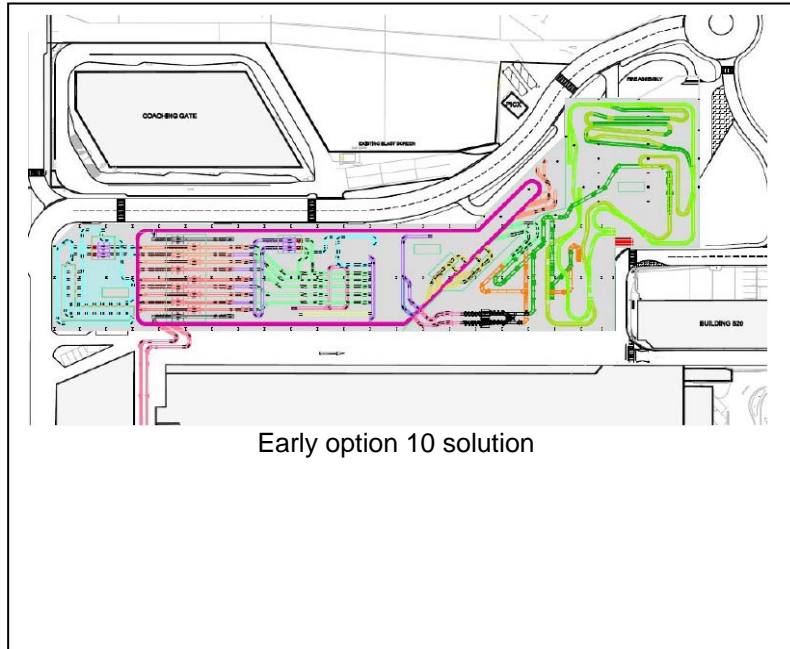
**Operational Issues**

<b>Financial Revenue and Operational Cost (Opex) Impact:</b>		
Revenue / Opex Cost Area:	Revenue (+) / Cost (-) Impact per Annum:	Commentary:
		Being evaluated as part of options stage work
<b>Impact on User Charges: Not included in CIP 2009 Publication</b>		
Estimated Per Passenger Cost Impact:		
Commentary:		
None		
<i>Note: Impact on User Charge is subject to a number of complex variables and regulatory decisions and therefore information is indicative only.</i>		
<b>Assumptions:</b>		
The following points cover the significant operational assumptions related to this project;		
<ul style="list-style-type: none"> <li>• Automation will be accepted by the airline unions</li> <li>• Automation (part 1 and 2) technology can be proven in the airport environment</li> </ul>		

**Areas of Disagreement**

<p>The following points cover any significant areas of disagreement between BAA and the Airline Community regarding this project.</p> <ul style="list-style-type: none"> <li>• Confidence in automation of can management needs to be provided</li> <li>• Staff training and staffing level changes need to be managed carefully</li> </ul> <p><i>Note: Any disagreement noted must be read in the context of the airline engagement status shown above.</i></p>
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**Appendix A: Overview:** Reference Drawing / Image:



**Appendix B: Project Delivery:** Cost Information:

**Project Information**

Project Name: T3 Integrated Baggage  
BCT No.: 3801 OP No.: 22380

**AFC Cost Information:**

*All information extracted from February 2009 month end process*

Base Costs:	£185,229,000	78 %
On-Cost:	£36,364,461	15 %
Risk (R1 Allowance only)	£14,572,000	6 %
Total (As entered into Artemis for Feb 09 Month End)	<b>£236,165,461</b>	

Commentary:

Figures based on DL Cost Model Nr 3 (Rev 2) which include £27,002,000 for WIB which is due to be transferred out to the Cross Campus Connectivity Project



## Header Information

<b>Project Name:</b>	T1-T4 Tunnel Refurbishment
<b>Name in Schedule</b>	3810 : System Baggage Cx refit T1 – T4

## Project Overview, Objectives and Status

<b>Overview:</b>		
Description:	Extension of serviceable life of automated connectivity baggage system between T1 & T4	
Ref. Drawings / Images: <i>(Refer to Appendix A)</i>	None	
<b>Objectives:</b>		
BAA:	<ul style="list-style-type: none"> <li>• Replacement of time expired controls &amp; re-life the facility for a further 10 years</li> <li>• Reduction in operation &amp; maintenance costs</li> <li>• Provide greater baggage operational reliability &amp; flexibility</li> <li>• Provide improved maintainability</li> </ul>	
Airline:	<ul style="list-style-type: none"> <li>• Automated connectivity for Terminal 4 airlines to those located within CTA</li> <li>• Equivalent inter-terminal MCT's</li> </ul>	
<b>Status:</b>		
BAA Lead Team: Capital & Solutions	Airline Engagement: Green	Strategic Solution or DGS/IGS Stage Construction

## Project Delivery

<b>Current Control Budget:</b>			
Total Capital Budget <i>(Constant Prices)</i> :			£8,800,000
<i>Refer to appendix B for cost information detail.</i>			
<b>Time:</b>			
Brief Decision:	Start on Site:	Completion on Site:	Operational Use Commences:
May / 2007	Sept / 2008	March /2009	March /2009
<i>Refer to appendix C for programme information detail.</i>			
<b>Assumptions:</b>			
The following points cover the significant delivery assumptions related to this project;			
<ul style="list-style-type: none"> <li>• This project was developed as part of the overall strategy to improve the Terminal 4 BHS during the optimal delivery window between the BA vacation to Terminal 5 &amp; the introduction of new airlines as part of the overall Heathrow Airline Relocations Programme.</li> <li>• Minimal operational disruption during implementation</li> <li>• This project is a 'trigger' project – date for completion Jan 2009</li> <li>• Total closure of tunnel system from Sept 2008 to March 2009 in order that works can be undertaken in an extended working window.</li> </ul>			
<i>Note: Assumptions stated here are to aid understanding and are not necessarily exhaustive.</i>			

## Operational Issues

<b>Financial Revenue and Operational Cost (Opex) Impact:</b>		
Revenue / Opex Cost Area:	Revenue (+) / Cost (-) Impact per	Commentary:

	Annum:	
See assumptions		
<b>Impact on User Charges:</b>	<b>Not included in CIP 2009 Publication</b>	
Estimated Per Passenger Cost Impact:		
Commentary:		
None.		
<i>Note: Impact on User Charge is subject to a number of complex variables and regulatory decisions and therefore information is indicative only.</i>		
<b>Assumptions:</b>		
The following points cover the significant operational assumptions related to this project;		
<ul style="list-style-type: none"> <li>Total closure of tunnel system from Sept 2008 to March 2009 requires ITO van operation between T1 &amp; T4.</li> </ul>		

### **Areas of Disagreement**

The following points cover any significant areas of disagreement between BAA and the Airline Community regarding this project.
None
<i>Note: Any disagreement noted must be read in the context of the airline engagement status shown above.</i>

**Appendix B: Project Delivery:** Cost Information:

**Project Information**

Project Name: T1 T4 Tunnel Cx Refit  
BCT No.: 3810 OP No.: 23393

**AFC Cost Information:**

*All information extracted from February 2009 month end process*

Base Costs:	£6,442,964	72 %
On-Cost:	£2,038,769	23 %
Risk (R1 Allowance only)	£492,700	5 %
Total (As entered into Artemis for Feb 09 Month End)	<b>£8,974,433</b>	

Commentary:

Total cost exclude the £150k banked savings  
Costs exclude Technical Assurance / System Assurance

## Header Information

<b>Project Name:</b>	Manual Handling (Baggage)
<b>Name in Schedule</b>	4191 : Manual Handling Aids

## Project Overview, Objectives and Status

<b>Overview:</b>		
Description:	Manual handling equipment within T1, T4 & T5	
Ref. Drawings / Images: <i>(Refer to Appendix A)</i>	None	
<b>Objectives:</b>		
BAA:	<ul style="list-style-type: none"> <li>Supports the over arching baggage strategy to reduce muscular skeletal injuries &amp; therefore reductions in staff absenteeism.</li> </ul>	
Airline:	<ul style="list-style-type: none"> <li>As BAA's.</li> </ul>	
<b>Status:</b>		
BAA Lead Team:	Airline Engagement:	Strategic Solution or DGS/IGS Stage
Capital & Solutions	Green	Option Development

## Project Delivery

<b>Current control Budget:</b>			
Total Capital Budget ( <i>Constant Prices</i> ):			£3,800,000
<i>Refer to appendix B for cost information detail.</i>			
<b>Time:</b>			
Brief Decision:	Start on Site:	Completion on Site:	Operational Use Commences:
2006	Oct / 2008	March /2009	March /2009
<i>Refer to appendix C for programme information detail.</i>			
<b>Assumptions:</b>			
The following points cover the significant delivery assumptions related to this project;			
Project is based on a delivery of the following:			
<ul style="list-style-type: none"> <li>T5 Priority 1 works – Essential Health &amp; Safety works to reduce manual handling risks as agreed with the HSE using manual handling products e.g. Vaculux system</li> <li>T5 Priority 2 works – Non-Essential works to reduce manual handling risks , using manual handling products</li> <li>Test Cell - Test Cell for the automation product provided by INDEC in Belgium</li> <li>T4 &amp; T1 Works – Health &amp; Safety works to reduce manual handling risks using existing Product range</li> <li>Future requirements assumed to be included within individual project scopes</li> </ul>			
<i>Note: Assumptions stated here are to aid understanding and are not necessarily exhaustive.</i>			

## Operational Issues

<b>Financial Revenue and Operational Cost (Opex) Impact:</b>		
Revenue / Opex Cost Area:	Revenue (+) / Cost (-) Impact per Annum:	Commentary:
		Opex reduction due to reduction in lost time due to injury.
See assumptions		

<b>Impact on User Charges:</b>	<b>Not included in CIP 2009 Publication</b>
Estimated Per Passenger Cost Impact:	
Commentary:	
None.	
<i>Note: Impact on User Charge is subject to a number of complex variables and regulatory decisions and therefore information is indicative only.</i>	
<b>Assumptions:</b>	
The following points cover the significant operational assumptions related to this project;	
<ul style="list-style-type: none"> <li>• This project will assist in the reduction of muscular skeletal injuries for both BAA &amp; Airline staff.</li> <li>• The baggage processing rates will not be compromised by the introduction of this equipment.</li> </ul>	

### **Areas of Disagreement**

The following points cover any significant areas of disagreement between BAA and the Airline Community regarding this project.
None
<i>Note: Any disagreement noted must be read in the context of the airline engagement status shown above.</i>

**Appendix B: Project Delivery:** Cost Information:

**Project Information**

Project Name: Manual Handling Aids  
BCT No.: 4191 OP No.: 22654

**AFC Cost Information:**

*All information extracted from February 2009 month end process*

Base Costs:	£2,581,323	73 %
On-Cost:	£789,311	22 %
Risk (R1 Allowance only)	£143,162	4 %
Total (As entered into Artemis for Feb 09 Month End)	<b>£3,513,796</b>	

Commentary:

## Header Information

<b>Project Name:</b>	T4 Open Skies
<b>Name in Schedule</b>	7969 : Terminal 4 Open Skies Baggage

## Project Overview, Objectives and Status

<b>Overview:</b>		
Description:	Provide an automated US Carrier Screening solution integrated within the T4 Baggage handling System (BHS)	
Ref. Drawings / Images: <i>(Refer to Appendix A)</i>	None	
<b>Objectives:</b>		
BAA:	<ul style="list-style-type: none"> <li>• Provide a robust &amp; reliable baggage operation within Terminal 4 that aligns with the functionality agreed under airline constructive engagement</li> <li>• Provide equivalence for US Carriers operating from T4 with those operating within the CTA i.e. integrated TSA compliant screening facilities</li> <li>• Improve the passenger experience by:</li> <li>• Enable 'on time' departures for US Carriers by providing pre-screening of potential 'selectee' passenger transfer baggage</li> <li>• Reducing passenger check in waiting time by providing an integrated solution within the BHS for originating 'selectee' passenger baggage</li> </ul>	
Airline:	<ul style="list-style-type: none"> <li>• Improved operational efficiency through an automated solution within the BHS</li> <li>• Reduction in manual handling of 'selectee' baggage</li> <li>• Reduction in dedicated screening operatives</li> </ul>	
<b>Status:</b>		
BAA Lead Team:	Airline Engagement:	Strategic Solution or DGS/IGS Stage
Capital & Solutions	Green	Construction

## Project Delivery

<b>Current Control Budget:</b>			
Total Capital Budget ( <i>Constant Prices</i> ):			£8,300,000
<i>Refer to appendix B for cost information detail.</i>			
<b>Time:</b>			
Brief Decision:	Start on Site:	Completion on Site:	Operational Use Commences:
May / 2007	Jan / 2009	May /2009	May /2009
<i>Refer to appendix C for programme information detail.</i>			
<b>Assumptions:</b>			
The following points cover the significant delivery assumptions related to this project;			
<ul style="list-style-type: none"> <li>• This project was developed as part of the overall strategy to improve the Terminal 4 BHS during the optimal delivery window between the BA vacation to Terminal 5 &amp; the introduction of new airlines as part of the overall Heathrow Airline Relocations Programme.</li> <li>• This project is not required to facilitate the Airline Relocation Programme.</li> <li>• The delivery programme has been based on completing the works in a timely manner to permit intra terminal airline relocations prior to commencement of the</li> </ul>			



<p>Airline Relocations Programme.</p> <ul style="list-style-type: none"> <li>This project does not provide additional BHS capacity</li> <li>Airlines will modify their Departure Control System (DCS) to enable the necessary transfer of correct baggage messaging between the BHS &amp; the Baggage Reconciliation System (BRS)</li> <li>OOG US Carriers bags will be processed via an existing OOG facility</li> </ul> <p><i>Note: Assumptions stated here are to aid understanding and are not necessarily exhaustive.</i></p>
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**Operational Issues**

<b>Financial Revenue and Operational Cost (Opex) Impact:</b>		
Revenue / Opex Cost Area:	Revenue (+) / Cost (-) Impact per Annum:	Commentary:
		Assumed negligible.
<b>Impact on User Charges: <span style="color: red;">Not included in CIP 2009 Publication</span></b>		
Estimated Per Passenger Cost Impact:		
Commentary:		
None.		
<i>Note: Impact on User Charge is subject to a number of complex variables and regulatory decisions and therefore information is indicative only.</i>		
<b>Assumptions:</b>		
The following points cover the significant operational assumptions related to this project;		
<ul style="list-style-type: none"> <li>None.</li> </ul>		

**Areas of Disagreement**

<p>The following points cover any significant areas of disagreement between BAA and the Airline Community regarding this project.</p> <ul style="list-style-type: none"> <li>Lack of BAA visibility of TSA approval of the solution &amp; the related security protocols</li> </ul> <p><i>Note: Any disagreement noted must be read in the context of the airline engagement status shown above.</i></p>
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**Appendix B: Project Delivery:** Cost Information:

**Project Information**

Project Name: T4 Open Skies US Carriers  
BCT No.: 7969 OP No.: 23392

**AFC Cost Information:**

*All information extracted from February 2009 month end process*

Base Costs:	£6,410,811	70 %
On-Cost:	£2,091,098	23 %
Risk (R1 Allowance only)	£662,036	7 %
Total (As entered into Artemis for Feb 09 Month End)	<b>£9,163,945</b>	

Commentary:

## Header Information

<b>Project Name:</b>	Baggage Integration
<b>Name in Schedule</b>	8747 : Baggage Integration

## Project Overview, Objectives and Status

<b>Overview:</b>		
Description:	Integration of the baggage product & assurance across the programme where not already included within individual projects scopes	
Ref. Drawings / Images: <i>(Refer to Appendix A)</i>	None	
<b>Objectives:</b>		
BAA:	<ul style="list-style-type: none"> <li>• Provide a robust &amp; reliable baggage operation across the baggage portfolio that aligns with the functionality agreed under airline constructive engagement:</li> <li>• Provide greater baggage operational reliability, flexibility &amp; maintainability</li> <li>• Fit with future terminal occupancy strategy</li> <li>• Standard baggage product solutions across the portfolio</li> </ul>	
Airline:	<ul style="list-style-type: none"> <li>• Service quality equivalence</li> <li>• Standard baggage product solutions across the portfolio</li> </ul>	
<b>Status:</b>		
BAA Lead Team: Capital & Solutions	Airline Engagement: Green	Strategic Solution or DGS/IGS Stage Various

## Project Delivery

<b>Current Control Budget:</b>			
Total Capital Budget <i>(Constant Prices)</i> :		£10,000,000	
<i>Refer to appendix B for cost information detail.</i>			
<b>Time:</b>			
Brief Decision:	Start on Site:	Completion on Site:	Operational Use Commences:
<i>Refer to appendix C for programme information detail.</i>			
<b>Assumptions:</b>			
The following points cover the significant delivery assumptions related to this project;			
<ul style="list-style-type: none"> <li>• When the baggage programme was created there was recognition that not all projects included all required costs for assurance and integration. This project was created to provide budget to cover baggage product integration costs that are not already included within specific project cost plans.</li> <li>• There is not yet sufficient clarity on the total package values to be held within projects to change control the budget out to projects. Future requirements are to be included within individual project scopes</li> </ul>			
<i>Note: Assumptions stated here are to aid understanding and are not necessarily exhaustive.</i>			

## Operational Issues

<b>Financial Revenue and Operational Cost (Opex) Impact:</b>		
Revenue / Opex Cost Area:	Revenue (+) / Cost (-)	Commentary:

	Impact per Annum:	
		To be developed on a project by project basis.
<b>Impact on User Charges:</b>		<b>Not included in CIP 2009 Publication</b>
Estimated Per Passenger Cost Impact:		
Commentary:		
None.		
<i>Note: Impact on User Charge is subject to a number of complex variables and regulatory decisions and therefore information is indicative only.</i>		
<b>Assumptions:</b>		
The following points cover the significant operational assumptions related to this project;		
None		

### **Areas of Disagreement**

The following points cover any significant areas of disagreement between BAA and the Airline Community regarding this project.
None
<i>Note: Any disagreement noted must be read in the context of the airline engagement status shown above.</i>

**Appendix B: Project Delivery:** Cost Information:

**Project Information**

Project Name: **Baggage Integration**  
BCT No.: **8747** OP No.:

**AFC Cost Information:**

*All information extracted from February 2009 month end process*

Base Costs:	£0	0 %
On-Cost:	£7,000,000	100 %
Risk (R1 Allowance only)	£0	0 %
Total (As entered into Artemis for Feb 09 Month End)	<b>£7,000,000</b>	

Commentary:

Holding account to cover Baggage Operational Readiness and Technical Assurance costs that are not already provisioned for in specific cost plans.

## Header Information

<b>Project Name:</b>	Baggage Transition
<b>Name in Schedule</b>	8818 : Baggage Transition

## Project Overview, Objectives and Status

<b>Overview:</b>		
Description:	Baggage programme transition across the baggage portfolio	
Ref. Drawings / Images: <i>(Refer to Appendix A)</i>	None	
<b>Objectives:</b>		
BAA:	<ul style="list-style-type: none"> <li>• Provide a robust &amp; reliable baggage operation across the baggage portfolio that aligns with the functionality agreed under airline constructive engagement:</li> <li>• Provide greater baggage operational reliability, flexibility &amp; maintainability</li> <li>• Fit with future terminal occupancy strategy</li> <li>• Standard baggage product solutions across the portfolio</li> </ul>	
Airline:	<ul style="list-style-type: none"> <li>• Service quality equivalence</li> <li>• Standard baggage product solutions across the portfolio</li> </ul>	
<b>Status:</b>		
BAA Lead Team:	Airline Engagement:	Strategic Solution or DGS/IGS Stage
Capital & Solutions	Green	Various

## Project Delivery

<b>Current Control Budget:</b>			
Total Capital Expenditure <i>(Constant Prices)</i> :			£16,830,000
<i>Refer to appendix B for cost information detail.</i>			
<b>Time:</b>			
Brief Decision:	Start on Site:	Completion on Site:	Operational Use Commences:
<i>Refer to appendix C for programme information detail.</i>			
<b>Assumptions:</b>			
The following points cover the significant delivery assumptions related to this project;			
<ul style="list-style-type: none"> <li>• The Baggage &amp; Flight Connections Programme was created after the Q5 CIP was set. To create the programme, scope was transferred from other programmes and from within existing projects. This project is a holding account in recognition that the projects created from this exercise may not include all user requirements. This fund is used to provide budget currently being 'transitioned' between baggage projects and to re-balance the baggage programme budget post Q5 CIP.</li> <li>• There is not yet sufficient clarity on the total package values to be held within projects to change control the budget out to projects.</li> <li>• Future requirements are to be included within individual project scopes</li> </ul>			
<i>Note: Assumptions stated here are to aid understanding and are not necessarily exhaustive.</i>			

## Operational Issues

<b>Financial Revenue and Operational Cost (Opex) Impact:</b>		
Revenue / Opex Cost Area:	Revenue (+) / Cost (-)	Commentary:

	Impact per Annum:	
		To be developed on a project by project basis.
<b>Impact on User Charges: Not included in CIP 2009 Publication</b>		
Estimated Per Passenger Cost Impact:		
Commentary:		
None.		
<i>Note: Impact on User Charge is subject to a number of complex variables and regulatory decisions and therefore information is indicative only.</i>		
<b>Assumptions:</b>		
The following points cover the significant operational assumptions related to this project;		
None		

### **Areas of Disagreement**

The following points cover any significant areas of disagreement between BAA and the Airline Community regarding this project.
None
<i>Note: Any disagreement noted must be read in the context of the airline engagement status shown above.</i>



**Appendix B: Project Delivery:** Cost Information:

**Project Information**

Project Name: **Baggage Transition**  
BCT No.: **8818** OP No.:

**AFC Cost Information:**

*All information extracted from February 2009 month end process*

Base Costs:	£0	#DIV/0!	%
On-Cost:	£0	#DIV/0!	%
Risk (R1 Allowance only)	£0	#DIV/0!	%
Total (As entered into Artemis for Feb 09 Month End)	<b>£0</b>		

Commentary:

Baggage Transition is an Account set up to hold budget currently being "Transitioned" between projects. This is being used by the leadership team to "Re-Balance" the baggage programme budget

## Header Information

<b>Project Name:</b>	HBS Vivid Replacement
<b>Name in Schedule</b>	0615 : HBS VIVID replacement prog

## Project Overview, Objectives and Status

<b>Overview:</b>		
Description:	Asset replacement of time expired Hold Baggage Screening equipment across Heathrow	
Ref. Drawings / Images: <i>(Refer to Appendix A)</i>	None	
<b>Objectives:</b>		
BAA:	<ul style="list-style-type: none"> <li>• Supports the over arching baggage strategy to deliver fully integrated design builds within terminal baggage halls</li> <li>• Minimise operational risk by replacement of time expired assets with new technology</li> <li>• Maintain Heathrow's licence to operate from DfT by meeting required security standards</li> <li>• Improvements in operational reliability, flexibility &amp; maintainability</li> </ul>	
Airline:	<ul style="list-style-type: none"> <li>• Improved operational efficiency through matrixed screening machines – thus reducing airline screening operators</li> </ul>	
<b>Status:</b>		
BAA Lead Team:	Airline Engagement:	Strategic Solution or DGS/IGS Stage
Capital & Solutions	Green	Construction

## Project Delivery

<b>Current Control Budget:</b>			
Total Capital Budget <i>(Constant Prices)</i> :			£43,100,000
<i>Refer to appendix B for cost information detail.</i>			
<b>Time:</b>			
Brief Decision:	Start on Site:	Completion on Site:	Operational Use Commences:
May / 2007	Jan / 2009	May /2009	May /2009
<i>Refer to appendix C for programme information detail.</i>			
<b>Assumptions:</b>			
The following points cover the significant delivery assumptions related to this project;			
<ul style="list-style-type: none"> <li>• Project is based on a phased strategy of 'just in time' replacement of time expired assets</li> <li>• Excludes replacement of any HBS machines within Terminal 3 as these are deemed to be included within the T3 Integrated Baggage Project scope</li> <li>• This project is not required to facilitate the Airline Relocation Programme.</li> <li>• Elements of the project within Terminal 4 BHS have been planned to be completed during the optimal delivery window between the BA vacation to Terminal 5 &amp; the introduction of new airlines as part of the overall Heathrow Airline Relocations Programme.</li> <li>• This project does not provide additional BHS capacity</li> </ul>			
<i>Note: Assumptions stated here are to aid understanding and are not necessarily exhaustive.</i>			

## Operational Issues

<b>Financial Revenue and Operational Cost (Opex) Impact:</b>		
Revenue / Opex Cost Area:	Revenue (+) / Cost (-) Impact per Annum:	Commentary:
		Assumed negligible to minor reduction in opex as replacement of existing assets with new equipment.
<b>Impact on User Charges: Not included in CIP 2009 Publication</b>		
Estimated Per Passenger Cost Impact:		
Commentary:		
None.		
<i>Note: Impact on User Charge is subject to a number of complex variables and regulatory decisions and therefore information is indicative only.</i>		
<b>Assumptions:</b>		
The following points cover the significant operational assumptions related to this project;		
<ul style="list-style-type: none"> <li>New technology will deliver improvements in operational reliability &amp; reductions in maintenance costs</li> </ul>		

### **Areas of Disagreement**

The following points cover any significant areas of disagreement between BAA and the Airline Community regarding this project.
None
<i>Note: Any disagreement noted must be read in the context of the airline engagement status shown above.</i>

**Appendix B: Project Delivery:** Cost Information:

**Project Information**

Project Name: HBS Replacement  
BCT No.: 615 OP No.: 18490

**AFC Cost Information:**

*All information extracted from February 2009 month end process*

Base Costs:	£41,110,276	73 %
On-Cost:	£12,402,614	22 %
Risk (R1 Allowance only)	£2,656,697	5 %
Total (As entered into Artemis for Feb 09 Month End)	<b>£56,169,587</b>	

Commentary:

The AFC includes the HBS Direct, HBS Transfer and HBS T1 projects.