Our ref:CRS-100519
Your ref:

Graeme Bickerdike

Sent via Email

David Parker
Historical Railways Estate
3rd Floor
37 Tanner Row
YORK
YO1 6WP

Direct Line: 0771 443 1547
10th December 2019

Dear Mr Bickerdike

Freedom of Information Request – Correspondence Relating to Queensbury Tunnel between Highways England and Jacobs/AMCO-Giffen

I am now writing to confirm that we have completed our searches for the information requested by you on 13th November 2019.

We do hold the information that you requested but some details have been redacted from the information supplied. The redacted details fall under the Freedom of Information Act 2000 Section 40 because providing those details would contravene the Data Protection Act 2018. The information which can be released is attached.

Most documents supplied by Highways England will be Crown Copyright. Most Crown Copyright information can be re-used under the Open Government Licence. For information about OGL and about re-using Crown Copyright information please see The National Archives website.

If you are unhappy with the way that we have handled your request you may ask for an internal review within 2 months of the date of this response for Freedom of Information requests and within 40 days for Environmental Information Regulations requests. Our internal review process is available at:
https://www.gov.uk/government/organisations/highways-england/about/complaints-procedure

If you require a print copy, please phone the Information Line on 0300 123 5000; or e-mail info@highwaysengland.co.uk. You should contact me if you wish to complain.

If you are not content with the outcome of the internal review, you have the right to apply directly to the Information Commissioner for a decision. The Information Commissioner can be contacted at:

Information Commissioner's Office
Wycliffe House
Water Lane

Wilmslow
Cheshire
SK9 5AF

If you have any queries about this letter, please contact me. Please remember to quote reference number 100519 in any future communications.

Yours sincerely

David Parker
Historical Railways Estate
Email: dave.parker@highwaysengland.co.uk

JACOBS

HRE
Queensbury Tunnel, HQU/3D

Principal Contractor AMCO
Subcontractor N/A

Report Author Despoina Katsouli

General Comments on Performance

Jacobs Engineers, Despoina Katsouli & Oliver Glover, completed a supervision visit at Queensbury Tunnel, HQU/3D, for the Phase 1a & b element of the abandonment works on 19th September 2019.

AMCO have managed to control the flooding to the formation and provide a dry environment up to ch. 113. The pump inlet has been placed at approx. ch.115.

AMCO have managed to place timber wedges between the colliery arches, that have been placed under the southern collapse at ch. 90.5, to mitigate possible further falling material and provide a safe path due to the further collapse that has occurred from within the void on 3rd September 2019.

Small pieces of rock have fallen on the east formation behind the colliery arches of the northern collapse at 98.5.

The second live feed Black Diamond Security CCTV camera has been places at ch. 107 and with 24/7 access via remote footage can be actively monitored and is to be placed near the working area to monitor for any unauthorised entry from the flooded end of the tunnel.

Station Road was in fair condition, relatively dry and tidy and no changes were noted since the last visit.

Plant and Labour

The following plant and staff were present on site:

Plant:

- 1No Welfare cabin
- 1No Office / Toilet cabin
- 1No Office (briefing room) cabin
- 1No Drying Room cabin
- 1No Storage cabin
- 1No 360 Excavator
- 1No Telehandler
- 3No Vans
- 4 No Electricity generators
- 1 No Diesel storage tank
- 1 No Water bowser
- 1No Pump and associated pipework
- 2No 400V Fans
- 1No Flocculator
- 3No Silt buster settlement tanks
- 3No Tanks with silt busting chemicals
- 1No Turbidity monitoring system (connected to Siltbuster)

Staff:

- 1 No. AMCO Site Manager (Martin Thomson)
- 1No. AMCO Site Supervisor (Richard Purcell)
- 3No. AMCO Site Operatives

Problems

The recently formed culvert at Strines Beck that diverts water into Strines cutting (south portal) has caused a large quantity of water to rapidly enter the tunnel and washed a large amount of debris further into the tunnel.

Health & Safety Audit

A health and safety audit was not completed by Jacobs on 19/09/2019, however Jacobs Engineers were satisfied with arrangements from a Health and Safety perspective.

Progress

Activity	% complete at reporting date
1. Establish site set up	100
2. RAM Arch mesh sheets will be transported into the tunnel	100
3. RAM Arch Installation towards Shaft No. 8 (15m long)	100
4. RAM Arch Installation towards Shaft No. 6 (15m long)	100
5. RAM Arch Installation towards Shaft No. 4 (15m long)	100
6. Investigate the drainage system within the tunnel	100
7. Transfer and place all required plant within tunnel	100
8. Installation of ventilation system within the tunnel	100
9. Clearance of area beneath and between the collapses	100
10. Install colliery arches beneath and between the collapses	100
11. RAM Arch installation between collapses	100
12. Install colliery arches beneath significant bulge at ch.93	100
13. RAM Arch installation between the southern collapse and Shaft No. 3	100
14. RAM Arch Installation at Shaft No. 3 (15m long)	33
15. Installation of Silt Buster equipment	100
16. RAM Arch Installation at Shaft No. 2 (15m long)	0
17. RAM Arch Installation at Shaft No. 1 (15m long)	0
18. Demobilise from site	0

Programme

Contract Start Date	17/09/2018
Contract Period (Phase 1a and 1b only)	23 weeks
Construction Start	01/10/2018
Construction Completion	31/07/2019 TBC
Contract Completion Date (whole of the works)	31/10/2019

Potential/ Actual Claim Situations

There has been a significant delay of approx. 1 month to the programme due to the heavy rainfall and large amount of water entering the tunnel from the newly formed culvert at the Strines Beck, resulting in a flooded formation. Any additional increase of flooding levels may cause further delays and an increase in weekly running costs due to the extended duration of the works. The overall programme has been delayed and associated costs are to be provided by AMCO once known.

Delays incurred

Refer to the comments above.

Potential Delays to Future Progress

Any instances of heavy or prolonged rainfall may result in the current pumping system being overwhelmed, which will result in further delays to the current programme.

Engineers Instructions issued to date

CE0001 - Phase 1 works instructed at a value of £545,372.50. The AFC table below only accounts for the Phase 1 works and currently does not consider the problems noted above, as at this time the costs are unknown.

CE0002 - The use of a larger tracked excavator was required to allow safe excavation deeper into the trackbed. The cost to hire in this excavator was £5,403.04.

CE0003 - AMCO excavated an area exposing part of the drainage system inside the north portal. They installed precast concrete chamber rings and precast concrete biscuit with manhole on the top. The cost for the completion of these works was £7,432.71.

CE0004 - AMCO will use High Pressure water jetting in the drain to attempt to clear built up debris/silt. The cost for three days of jetting/surveying works was £12,510.39.

CE0005 - Following the submission of AMCO's application 1No for Phase 1 of the works at Queensbury, AMCO have identified that they have inadvertently excluded their charges for confined space safe system of works as per items A3591 & A3592. Based on these rates the cost of £35,289.10 was omitted from our price build up for CE001.This is for 6 weeks at rate A3592 and £29,740 for confined space training and safety equipment of rate A3591.

CE0006 – AMCO asked for an additional one days jetting and CCTV surveying were required over and above the allowance in CE0004. The cost for the completion of these works was £4,170.10.

CE0007 - Work through the collapses to install temporary protection arches & install the pumping system. Additional time for completion of the remaining Phase 1 RAM Arches. The extended programme includes a total of 14 weeks (including 2 week holiday period) to inspect and make safe the tunnel lining between 82ch and the first collapse at 90ch, clear the debris and install temporary colliery arches beneath the collapse areas. A further 3 weeks are included for the installation of the RAM Arch to shafts 1, 2 & 3. As this work is all being undertaken in advance of the main works, this extended programme will not cause a delay to the project completion. The cost for the completion of these works was £498,861.92.

CE0008 - The original plan was to ventilate from both ends and place the fans outside the tunnel. Due to the access restrictions at the South portal and the flooding, blocking the passage of air, AMCO provided an alternative solution using methods which will force air all the way through from one end of the tunnel to the furthest work location, rather than just halfway. Increasing the capacity of the fans and the ducting to ensure the delivery of the clean air requires more powerful generators (from 65KVA to 100KVA) and therefore the requirement for more diesel. In order to accommodate the fans in the tunnel AMCO need to house them in parallel on a steel frame and connect the outlet sides together via a Y shaped steel ducting, which will then lead into the 1200mm layflat mine ducting. As the fans have been transferred in the tunnel AMCO need to prevent any recirculation of the air. The cost for the completion of these works is £115,762.57.

CE0009 - During the Christmas holiday period, work has been carried out at Strines Cutting, at the south end of the tunnel to divert water from Strines Beck into the cutting and therefore the tunnel. This had significantly increased flooding levels in the tunnel which has caused progress of the works to slow considerably. AMCO had been instructed and installed a pumping system at approx. ch.85 with a 6" pipe. The water, before their management, was up to the ch.75. The cost for the management of this issue, delays and the continuous dewatering is £144,622.67.

CE0010 - During the Christmas holiday period, work has been carried out at Strines Cutting, at the south end of the tunnel to divert water from Strines Beck into the cutting and therefore the tunnel. This had significantly increased flooding levels in the tunnel which has damaged the tracked boom that had been placed in the formation had been submerged in water over this period. The cost for the repairs of the MEWP is £3,654.00.

CE0011 - Due to the increased possibility of mobilising silts and sediments when excavating the collapse debris from the tunnel, the pump had been turned off to avoid possible pollution of the running water at the cutting from unknown contamination of the debris. The installation of Siltbuster was requested and the cost covers the provision, delivery, installation and commission of three Silt buster units such as the period of 2 week hire up to the end of March including the cost for the discharge permit obtained from the Environmental Agency. This cost excludes any chemicals such as Coagulant (PAC) and Flocculent (Concentration for dilution) and it is £19,743.92.

CE0012 - Gas monitoring surveys are required to be completed by the end of Phase 1a of abandonment works. The proposed value include attendance on site on an approximately fortnightly basis over a 12 week period (6No visits), and monitoring for ground gases at each of the 6No boreholes installed at the ventilation shafts in 2017/18. The preparation and delivery of a factual report at the completion of works is included. The cost for the completion of these surveys is £8,426.65.

CE0013 - 12No extra steel colliery arches with B503 mesh covering are required to be installed in an area with a significant bulge between the two collapses. This cost includes only procurement of materials and delivery at a cost of £20,125.92.

CE0014 – Due to the increased possibility of mobilising silts and sediments when excavating the collapse debris from the tunnel, the pump had been turned off to avoid possible pollution of the water at the cutting from unknown contamination of the debris. The installation of Siltbuster equipment was requested to be installed within the tunnel to allow the works to progress. A stand down period of 16 days was incurred whist water pumping was temporally discontinued from the 6th to the 27th of March 2019. The cost for the stand down period due to flooding is £66,906.91.

CE0015 – Provision and installation additional 105m of Ram Arch at the area between the two collapses and to support the remaining 3No shaft eyes and to erect 12No colliery arches (14No in total, however 2No already priced within CE0007 and the colliery arch material priced in CE0013). The EW cost estimate for this item of work was £612,225.66. However, upon reviewing progress of the works Jacobs instructed this work item with a reduced duration. The cost has been calculated based on 5 weeks (25 shifts) for the installation of the 105m of Ram Arch and 1 week (5 shifts) for the installation of the Colliery Arches. The cost for the supply and installation of the additional Ram Arch and colliery arches is £484,132.29. Progress will be monitored and an additional instruction may be necessary to cover any overrun.

CE0016 - Overtime due to pumping and ventilation issues. The price of the present compensation event is to consolidate the recent programme to date. This consists of 2No weeks of labour and equipment for pumping to regain the work area and the delayed excavating tunnel drainage to establish connection during the period 27th March – 05th April and 02nd – 03th May. Also, it includes weekend working in association with the water pumping and 2No shifts associated with the tunnel ventilation. The dates are covered are 06/13/20th January, 10th February, 30/31th March, 07/14/20/22/28th April and 05th May. The cost associated with this compensation event can be attributed to the recent works undertaken by others at Strines Beck to divert water into the Strines Cutting and the tunnel. The cost for the completion of these works was £110,579.06.

CE0017 - Pump damage in association with the flooding. AMCO commenced pumping water from the tunnel as an emergency priority due to the flooding issues; however, this was prior to the ventilation being set up and running. Due to the unexpected amount of water, the pump had been damaged and choking on its own exhaust fumes. This had led to soot adhering to the pump resulting in damage. The cost associated with this compensation event was £1,305.00.

CE0018 - Additional time associated with provision of additional Ram Arch and Colliery Arches between the two collapses - Continuation of CE0015. Due to delays in water pumping and Environmental Agency restrictions. Only 5 weeks of productivity was able to be carried out during the 6 weeks allowed for in CE0015. This residual week has been continued in this EW to a total of 1week (w/c 3rd June) plus three weekend shifts (19/05, 26/05 and 02/06). The cost that has been calculated for the completion of these works is £50,597.02.

CE0018a - Additional time associated with the installation of Colliery Arches beneath the second collapse - Continuation of CE007. Due to delays due to increased water pumping an extended duration of 1.4 weeks and weekend working has been required to complete the colliery arches through both collapses. The additional time

has been continued in this EW to a total of 1.4weeks (w/c 1st July) plus two weekend shifts (30/06 & 07/07). The cost that has been estimated for the completion of these works is £63,692.13.

CE0019 - Pumping to recover water levels to work area. Due to the heavy rain and water being diverted from Strines Beck into the south end of the tunnel, additional pumping was required to control the increased unexpected volumes of water entering the tunnel, discovered on Sunday 9th June 2019. AMCO had deployed operatives both throughout the day and night to operate the pump at a higher pumping rate and to take water samples as required by the higher pumping rates. This compensation event covers 3 weeks of day and night shifts including weekends. The cost that has been estimated for the completion of these works is £165,005.46.

CE0020 - Provision and installation of additional 33m of RAM Arch between the southern collapse and Shaft No3 from dates 10/07/19 to the 23/07/19 including two weekend shifts (14/07 and 21/07). The cost that has been estimated for the completion of these works is £164,953.52.

CE021 - Pumping to recover water levels to work area for the period 22/07/2019 – 05/08/2019. Due to the heavy rain and water being diverted from Strines Beck into the south end of the tunnel, additional pumping was required to control the increased unexpected volumes of water entering the tunnel. AMCO had deployed operatives both throughout the day and night to operate the pump at a higher pumping rate and to take water samples as required by the higher pumping rates. This compensation event covers 1.8 weeks of day and night shifts including weekends. The cost that has been estimated for the completion of these works is £106,627.41.

CE022 - Pumping to recover water levels to work area for the period 22/07/2019 – 05/08/2019. Due to the heavy rain and water being diverted from Strines Beck into the south end of the tunnel, additional pumping it is assumed it will be required to control the increased unexpected volumes of water entering the tunnel. AMCO suggest deploying operatives both throughout the day and night to operate the pump at a higher pumping rate and to take water samples as required by the higher pumping rates. This compensation event covers 3.8 weeks of day and night shifts including weekends. The cost that has been estimated for the completion of these works is £204,796.88.

CE023 - Provision of a turbidity and pH monitor including installation and commission. Provision of additional pipework. Provision of 20 tonnes of type 1 to be installed to a section of the 'boggy' tunnel floor under the northern colliery arches. The cost that has been estimated for the completion of these works is £9,226.99.

Anticipated Instructions

An early warning has been issued by AMCO to cover the expenses for 360° excavator, MEWP and telehandler which have all been damaged in association with the flooding issues that have occurred due the diversion of the Strines Beck. A provisional sum of £20,000.00 has been estimated to cover the works above. The exact cost is still to be determined.

An early warning has been issued by AMCO to cover the subsistence charges expenses in association with the Environmental Agency table of charges 2.3.39 - “Trade effluent and/or non-sewage effluent discharge with specific substances with a volume greater than 100m^3 a day and up to and including 1,000m^3 a day - £9,189.69. On a pro-rata basis for the charge period 30/05/2019 to 31/03/2020 the cost has been estimated to £7,708.29.

An early warning has been issued by AMCO to cover the 16.5k diesel generator Damage following an increase of water flow into the tunnel on Saturday 28th August which resulted in a loss of 150m of the work area. The damage has been deemed beyond economical repair and has also been incurred to the mechanical seal, shaft and bearings on the pump. The cost has been estimated to £8,764.56.

An early warning has been issued by AMCO to cover the additional security system required at the working area to monitor for unauthorised entry from the Holmfield Portal. The camera is to be installed on 10/09/19 for an 8 week period. The total cost has been estimated to be £3,073.60, including the charge for use of the camera for an 8 week period and installation and decommission fees.

An early warning has been issued by AMCO to cover the pumping works required to recover water levels to work area for the period 01/09/2019 – 31/10/2019. Due to bouts of heavy rain and water being diverted from Strines

Beck into the south end of the tunnel, additional pumping is required to control the increased volumes of water entering the tunnel. AMCO are deploying operatives both throughout the day and night to operate the pump at a higher pumping rate and to take water samples as required by the higher pumping rates. This eary warning covers 8.8 weeks of day and night shifts including weekends and a cost of £503,401.99 has been estimated to cover the works above.

An early warning has been issued by AMCO to cover the provision of on-site security officer from 15:00 to 23:00 for 7 days a week (56 hours per week). AMCO has estimated the guard will be required up to and including the last week in October. The estimate cost will include £840 per week (£15 per hour x 56 hours) and the site set-up fee £162.50. A provisional sum of £1,002.50 has been estimated to cover the security per week.

Anticipated Final Cost (AFC) – Phase 1a and 1b only

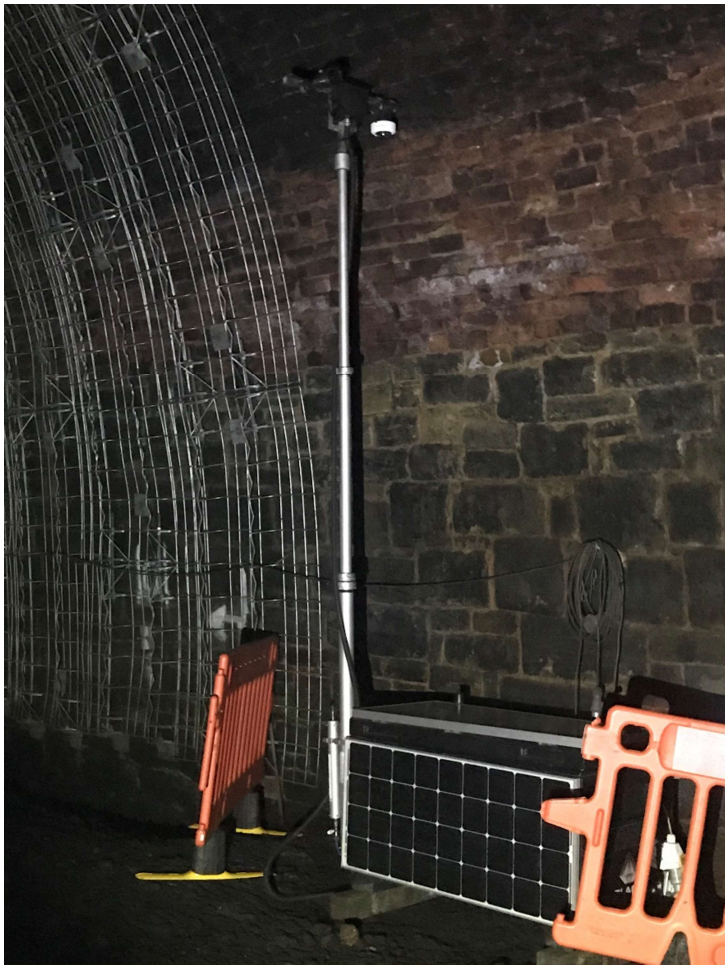
Original Contract Cost	£1,044,234.42
Agreed Variation Costs	£1,804,963.74
Early Warning Estimates	£543,950.94
Anticipated Final Cost (Original Contract Cost + Variations + Estimates)	£3,393,149.10

Progress photographs as at 19/09/2019

Photograph 1: *View of flooded formation, looking south, from ch.113. The light coming through the south portal is now obvious.*

Photograph 2: *AMCO provided timber wedges between the colliery arches to provide a secure area at ch 90.5.*

Photograph 3: *Small pieces of rock have fallen on the east formation behind colliery arches of the northern collapse at 98.5.*



Photograph 4: The n*ew CCTV camera has been placed at ch 107.*

Photograph 5: *View of turbidity monitor readings.*

Photograph 6: *Condition of Station Road.*

Compensation Event Form CE0024

Structure Reference:	HQU/3D
Structure Name:	Queensbury Tunnel – Abandonment Works
Early Warning No. (if applicable)	EW26

Description of Change: (inc. reason for necessity of change)

In association with the Environmental Agency table of charges 2.3.39 - "Trade effluent and/or non-sewage effluent discharge with specific substances with a volume greater than 100m(3) a day and up to and including 1,000m(3) a day" the subsistence activity charge is £8,279.00.

The Environmental Agency has invoiced the Contractor the amount of £6,944.41 for the charges on a pro-rata basis for the charge period 30/05/2019 to 31/03/2020. The cost, including the direct fee percentage uplift of 9% as applied through the contract with the HRE framework, has been calculated to be £7,569.40.

Where this was discussed: ~~• Meeting~~ • Email ~~• Other~~	**Details:** (Which meeting? Who was it discussed between?) 10/09: E-mail provided from Tom Judge & Dave Thomas (AMCO) to Despoina Katsouli & James Wilson (Jacobs).	
Date this was discussed:	10/09/2019	**Was the Client Present at the meeting?** ~~Yes/~~No

Project Impact:

1) Value £7,569.40
2) This has not caused a delay to the Project Completion.

Clause in Scope:	**61.1**

Programme (inc. start date and end date of work in addition to any key dates in between. Event must be split into a series of small tasks with their own set of dates, for start and completion):

The original programme will not be affected.

Signed: Project Manager

P.P.

Compensation Event Form CE0025

Structure Reference:	HQU/3D
Structure Name:	Queensbury Tunnel – Abandonment Works
Early Warning No. (if applicable)	EW27

Description of Change: (inc. reason for necessity of change)

Damaged Generator.

Following an increase of water flow into the tunnel on Saturday 28th August which resulted in a loss of 150m of the work area, water damage has been sustained to the 16.5k diesel generator which has been deemed beyond economical repair and damage has also been incurred to the mechanical seal, shaft and bearings on the pump.

Where this was discussed: ~~• Meeting~~ • Email ~~• Other~~	**Details:** (Which meeting? Who was it discussed between?) 10/09: E-mail provided from Tom Judge & Dave Thomas (AMCO) to Despoina Katsouli & James Wilson (Jacobs).	
Date this was discussed:	10/09/2019	**Was the Client Present at the meeting?** ~~Yes/~~No

Project Impact:

1) Value £8,764.56
2) This has not caused a delay to the Project Completion.

Clause in Scope:	**61.1**

Programme (inc. start date and end date of work in addition to any key dates in between. Event must be split into a series of small tasks with their own set of dates, for start and completion):

The original programme will not be affected.

Signed: Project Manager

P.P.

Compensation Event Form CE0026

Structure Reference:	HQU/3D		
Structure Name:	Queensbury Tunnel – Abandonment Works		
Early Warning No. (if applicable)	EW28		
Description of Change: (inc. reason for necessity of change) Additional Security System Due to the authorised increase in water pumping volumes within the tunnel, the Contractor provided and installed a live feed camera with 24/7 access via remote footage at the working area to monitor the water levels and any unauthorised access via the south portal. The camera has been installed on 10/09/19 for an 8 week period, until 05/11/2019. The total cost includes the charge for use of the camera for an 8 week period, installation and decommissioning fees.			
Where this was discussed: • ~~Meeting~~ • Email • ~~Other~~	**Details:** (Which meeting? Who was it discussed between?) 10/09: E-mail provided from Tom Judge & Dave Thomas (AMCO) to Despoina Katsouli & James Wilson (Jacobs).		
Date this was discussed:	10/09/2019	**Was the Client Present at the meeting?**	~~Yes/~~No
Project Impact: 1) Value £3,073.60 2) This has not caused a delay to the Project Completion.			
Clause in Scope:	**61.1**		
Programme (inc. start date and end date of work in addition to any key dates in between. Event must be split into a series of small tasks with their own set of dates, for start and completion): The original programme will not be affected.			
Signed: Project Manager **P.P.**			

Compensation Event Form CE0027

Structure Reference:	HQU/3D		
Structure Name:	Queensbury Tunnel – Abandonment Works		
Early Warning No. (if applicable)	EW29		
Description of Change: (inc. reason for necessity of change) Pumping to recover water levels to work area for the period 01/09/2019 – 31/10/2019 Due to bouts of heavy rain and water being diverted from Strines Beck into the south end of the tunnel, additional pumping was required to control the increased unexpected volumes of water entering the tunnel. AMCO are deploying operatives both throughout the day and night to operate the pump at a higher pumping rate and to take water samples as required by the higher pumping rates. This compensation event covers 8.8 weeks of day and night shifts including weekends.			
Where this was discussed: • ~~Meeting~~ • Email • ~~Other~~	**Details:** (Which meeting? Who was it discussed between?) 10/09: E-mail provided from Tom Judge & Dave Thomas (AMCO) to Despoina Katsouli & James Wilson (Jacobs).		
Date this was discussed:	10/09/2019	**Was the Client Present at the meeting?**	~~Yes/~~No
Project Impact: 1) Value £503,401.99. 2) The overall programme has been affected causing a delay of 8.8 weeks to the Project Completion.			
Clause in Scope:	**61.1**		
Programme (inc. start date and end date of work in addition to any key dates in between. Event must be split into a series of small tasks with their own set of dates, for start and completion): Flood management at recommencement of the works prevented other works being undertaken between 01/09/2019 – 31/10/2019 inclusive.			
Signed: **P.P.** **Project Manager**			

Compensation Event Form CE0028

Structure Reference:	HQU/3D		
Structure Name:	Queensbury Tunnel – Abandonment Works		
Early Warning No. (if applicable)	EW30		
Description of Change: (inc. reason for necessity of change) On-site security guard Provision of on-site security officer from 15:00 to 23:00 every day for 7 days a week (total 56 hours per week). The cost includes 45No shifts with £120 per shift and the site set-up fee £162.50 from 17th September until 31st October 2019.			
Where this was discussed: • ~~Meeting~~ • Email • ~~Other~~	**Details:** (Which meeting? Who was it discussed between?) 12/09: E-mail provided from Tom Judge & Dave Thomas (AMCO) to Despoina Katsouli & James Wilson (Jacobs).		
Date this was discussed:	12/09/2019	**Was the Client Present at the meeting?**	~~Yes/~~No
Project Impact: 1) Value £5,562.50. 2) This has not caused a delay to the Project Completion.			
Clause in Scope:	**61.1**		
Programme (inc. start date and end date of work in addition to any key dates in between. Event must be split into a series of small tasks with their own set of dates, for start and completion): The original programme will not be affected.			
Signed: **P.P.** **Project Manager**			

HRE
Queensbury Tunnel, HQU/3D

Principal Contractor AMCO
Subcontractor N/A

Report Author Despoina Katsouli

General Comments on Performance

Jacobs Engineers, Despoina Katsouli & James Wilson, completed a supervision visit at Queensbury Tunnel, HQU/3D, for the Phase 1a & b element of the abandonment works on 26th September 2019.

AMCO have managed to control the flooding to the formation and provide a dry environment up to ch. 125. The pump inlet has been placed at approx. ch.126.

AMCO have managed to complete the placement of timber wedges between the colliery arches, that have been placed under the southern collapse at ch. 90.5.

A reconnaissance walk was completed by Jacobs and AMCO from the North portal up to the ch 125 to check for further defects and any new signs of movement. AMCO had already marked the defect areas between Shafts 2 and 3 where they consider RAM Arch will be required to be installed. Jacobs checked all these areas and AMCO completed tapping to the spalled areas where required. It was agreed that 67m of RAM Arch will be required to secure the spalled and/or bulged areas from tab 108+12 up to tab 122+2 to provide a safe access up to the Shaft 2.

Station Road was in fair condition, tidy and relatively wet due to the heavy rainfall over the previous days. No changes were noted since the last visit.

Plant and Labour

The following plant and staff were present on site:

Plant:

- 1No Welfare cabin
- 1No Office / Toilet cabin
- 1No Office (briefing room) cabin
- 1No Drying Room cabin
- 1No Storage cabin
- 1No 360 Excavator
- 1No Telehandler
- 3No Vans
- 4 No Electricity generators
- 1 No Diesel storage tank
- 1 No Water bowser
- 1No Pump and associated pipework
- 2No 400V Fans
- 1No Flocculator
- 3No Silt buster settlement tanks
- 3No Tanks with silt busting chemicals
- 1No Turbidity monitoring system (connected to Siltbuster)

Staff:

- 1 No. AMCO Contracts Manager (Dave Thomas)
- 1 No. AMCO Site Manager (Martin Thomson)

- 3No. AMCO Site Operatives

Problems

The recently formed culvert at Strines Beck that diverts water into Strines cutting (south portal) has caused a large quantity of water to rapidly enter the tunnel and washed a large amount of debris further into the tunnel.

Health & Safety Audit

A health and safety audit was not completed by Jacobs on 26/09/2019, however Jacobs Engineers were satisfied with arrangements from a Health and Safety perspective.

Progress

Activity	% complete at reporting date
1. Establish site set up	100
2. RAM Arch mesh sheets will be transported into the tunnel	100
3. RAM Arch Installation towards Shaft No. 8 (15m long)	100
4. RAM Arch Installation towards Shaft No. 6 (15m long)	100
5. RAM Arch Installation towards Shaft No. 4 (15m long)	100
6. Investigate the drainage system within the tunnel	100
7. Transfer and place all required plant within tunnel	100
8. Installation of ventilation system within the tunnel	100
9. Clearance of area beneath and between the collapses	100
10. Install colliery arches beneath and between the collapses	100
11. RAM Arch installation between collapses	100
12. Install colliery arches beneath significant bulge at ch.93	100
13. RAM Arch installation between the southern collapse and Shaft No. 3	100
14. RAM Arch Installation at Shaft No. 3 (15m long)	33
15. Installation of Silt Buster equipment	100
16. RAM Arch Installation at Shaft No. 2 (15m long)	0
17. RAM Arch Installation at Shaft No. 1 (15m long)	0
18. Demobilise from site	0

Programme

Contract Start Date	17/09/2018
Contract Period (Phase 1a and 1b only)	23 weeks
Construction Start	01/10/2018
Construction Completion	31/07/2019 TBC
Contract Completion Date (whole of the works)	31/10/2019

Potential/ Actual Claim Situations

There has been a significant delay of approx. 1 month to the programme due to the heavy rainfall and large amount of water entering the tunnel from the newly formed culvert at the Strines Beck, resulting in a flooded formation. Any additional increase of flooding levels may cause further delays and an increase in weekly running costs due to the extended duration of the works. The overall programme has been delayed and associated costs are to be provided by AMCO once known.

Delays incurred

Refer to the comments above.

Potential Delays to Future Progress

Any instances of heavy or prolonged rainfall may result in the current pumping system being overwhelmed, which will result in further delays to the current programme.

Engineers Instructions issued to date

CE0001 - Phase 1 works instructed at a value of £545,372.50. The AFC table below only accounts for the Phase 1 works and currently does not consider the problems noted above, as at this time the costs are unknown.

CE0002 - The use of a larger tracked excavator was required to allow safe excavation deeper into the trackbed. The cost to hire in this excavator was £5,403.04.

CE0003 - AMCO excavated an area exposing part of the drainage system inside the north portal. They installed precast concrete chamber rings and precast concrete biscuit with manhole on the top. The cost for the completion of these works was £7,432.71.

CE0004 - AMCO will use High Pressure water jetting in the drain to attempt to clear built up debris/silt. The cost for three days of jetting/surveying works was £12,510.39.

CE0005 - Following the submission of AMCO's application 1No for Phase 1 of the works at Queensbury, AMCO have identified that they have inadvertently excluded their charges for confined space safe system of works as per items A3591 & A3592. Based on these rates the cost of £35,289.10 was omitted from our price build up for CE001.This is for 6 weeks at rate A3592 and £29,740 for confined space training and safety equipment of rate A3591.

CE0006 – AMCO asked for an additional one days jetting and CCTV surveying were required over and above the allowance in CE0004. The cost for the completion of these works was £4,170.10.

CE0007 - Work through the collapses to install temporary protection arches & install the pumping system. Additional time for completion of the remaining Phase 1 RAM Arches. The extended programme includes a total of 14 weeks (including 2 week holiday period) to inspect and make safe the tunnel lining between 82ch and the first collapse at 90ch, clear the debris and install temporary colliery arches beneath the collapse areas. A further 3 weeks are included for the installation of the RAM Arch to shafts 1, 2 & 3. As this work is all being undertaken in advance of the main works, this extended programme will not cause a delay to the project completion. The cost for the completion of these works was £498,861.92.

CE0008 - The original plan was to ventilate from both ends and place the fans outside the tunnel. Due to the access restrictions at the South portal and the flooding, blocking the passage of air, AMCO provided an alternative solution using methods which will force air all the way through from one end of the tunnel to the furthest work location, rather than just halfway. Increasing the capacity of the fans and the ducting to ensure the delivery of the clean air requires more powerful generators (from 65KVA to 100KVA) and therefore the requirement for more diesel. In order to accommodate the fans in the tunnel AMCO need to house them in parallel on a steel frame and connect the outlet sides together via a Y shaped steel ducting, which will then lead into the 1200mm layflat mine ducting. As the fans have been transferred in the tunnel AMCO need to prevent any recirculation of the air. The cost for the completion of these works is £115,762.57.

CE0009 - During the Christmas holiday period, work has been carried out at Strines Cutting, at the south end of the tunnel to divert water from Strines Beck into the cutting and therefore the tunnel. This had significantly increased flooding levels in the tunnel which has caused progress of the works to slow considerably. AMCO had been instructed and installed a pumping system at approx. ch.85 with a 6" pipe. The water, before their management, was up to the ch.75. The cost for the management of this issue, delays and the continuous dewatering is £144,622.67.

CE0010 - During the Christmas holiday period, work has been carried out at Strines Cutting, at the south end of the tunnel to divert water from Strines Beck into the cutting and therefore the tunnel. This had significantly increased flooding levels in the tunnel which has damaged the tracked boom that had been placed in the formation had been submerged in water over this period. The cost for the repairs of the MEWP is £3,654.00.

CE0011 - Due to the increased possibility of mobilising silts and sediments when excavating the collapse debris from the tunnel, the pump had been turned off to avoid possible pollution of the running water at the cutting from unknown contamination of the debris. The installation of Siltbuster was requested and the cost covers the provision, delivery, installation and commission of three Silt buster units such as the period of 2 week hire up to the end of March including the cost for the discharge permit obtained from the Environmental Agency. This cost excludes any chemicals such as Coagulant (PAC) and Flocculent (Concentration for dilution) and it is £19,743.92.

CE0012 - Gas monitoring surveys are required to be completed by the end of Phase 1a of abandonment works. The proposed value include attendance on site on an approximately fortnightly basis over a 12 week period (6No visits), and monitoring for ground gases at each of the 6No boreholes installed at the ventilation shafts in 2017/18. The preparation and delivery of a factual report at the completion of works is included. The cost for the completion of these surveys is £8,426.65.

CE0013 - 12No extra steel colliery arches with B503 mesh covering are required to be installed in an area with a significant bulge between the two collapses. This cost includes only procurement of materials and delivery at a cost of £20,125.92.

CE0014 – Due to the increased possibility of mobilising silts and sediments when excavating the collapse debris from the tunnel, the pump had been turned off to avoid possible pollution of the water at the cutting from unknown contamination of the debris. The installation of Siltbuster equipment was requested to be installed within the tunnel to allow the works to progress. A stand down period of 16 days was incurred whist water pumping was temporally discontinued from the 6th to the 27th of March 2019. The cost for the stand down period due to flooding is £66,906.91.

CE0015 – Provision and installation additional 105m of Ram Arch at the area between the two collapses and to support the remaining 3No shaft eyes and to erect 12No colliery arches (14No in total, however 2No already priced within CE0007 and the colliery arch material priced in CE0013). The EW cost estimate for this item of work was £612,225.66. However, upon reviewing progress of the works Jacobs instructed this work item with a reduced duration. The cost has been calculated based on 5 weeks (25 shifts) for the installation of the 105m of Ram Arch and 1 week (5 shifts) for the installation of the Colliery Arches. The cost for the supply and installation of the additional Ram Arch and colliery arches is £484,132.29. Progress will be monitored and an additional instruction may be necessary to cover any overrun.

CE0016 - Overtime due to pumping and ventilation issues. The price of the present compensation event is to consolidate the recent programme to date. This consists of 2No weeks of labour and equipment for pumping to regain the work area and the delayed excavating tunnel drainage to establish connection during the period 27th March – 05th April and 02nd – 03th May. Also, it includes weekend working in association with the water pumping and 2No shifts associated with the tunnel ventilation. The dates are covered are 06/13/20th January, 10th February, 30/31th March, 07/14/20/22/28th April and 05th May. The cost associated with this compensation event can be attributed to the recent works undertaken by others at Strines Beck to divert water into the Strines Cutting and the tunnel. The cost for the completion of these works was £110,579.06.

CE0017 - Pump damage in association with the flooding. AMCO commenced pumping water from the tunnel as an emergency priority due to the flooding issues; however, this was prior to the ventilation being set up and running. Due to the unexpected amount of water, the pump had been damaged and choking on its own exhaust fumes. This had led to soot adhering to the pump resulting in damage. The cost associated with this compensation event was £1,305.00.

CE0018 - Additional time associated with provision of additional Ram Arch and Colliery Arches between the two collapses - Continuation of CE0015. Due to delays in water pumping and Environmental Agency restrictions. Only 5 weeks of productivity was able to be carried out during the 6 weeks allowed for in CE0015. This residual week has been continued in this EW to a total of 1week (w/c 3rd June) plus three weekend shifts (19/05, 26/05 and 02/06). The cost that has been calculated for the completion of these works is £50,597.02.

CE0018a - Additional time associated with the installation of Colliery Arches beneath the second collapse - Continuation of CE007. Due to delays due to increased water pumping an extended duration of 1.4 weeks and weekend working has been required to complete the colliery arches through both collapses. The additional time has been continued in this EW to a total of 1.4weeks (w/c 1st July) plus two weekend shifts (30/06 & 07/07). The cost that has been estimated for the completion of these works is £63,692.13.

CE0019 - Pumping to recover water levels to work area. Due to the heavy rain and water being diverted from Strines Beck into the south end of the tunnel, additional pumping was required to control the increased unexpected volumes of water entering the tunnel, discovered on Sunday 9th June 2019. AMCO had deployed operatives both throughout the day and night to operate the pump at a higher pumping rate and to take water samples as required by the higher pumping rates. This compensation event covers 3 weeks of day and night shifts including weekends. The cost that has been estimated for the completion of these works is £165,005.46.

CE0020 - Provision and installation of additional 33m of RAM Arch between the southern collapse and Shaft No3 from dates 10/07/19 to the 23/07/19 including two weekend shifts (14/07 and 21/07). The cost that has been estimated for the completion of these works is £164,953.52.

CE0021 - Pumping to recover water levels to work area for the period 22/07/2019 – 05/08/2019. Due to the heavy rain and water being diverted from Strines Beck into the south end of the tunnel, additional pumping was required to control the increased unexpected volumes of water entering the tunnel. AMCO had deployed operatives both throughout the day and night to operate the pump at a higher pumping rate and to take water samples as required by the higher pumping rates. This compensation event covers 1.8 weeks of day and night shifts including weekends. The cost that has been estimated for the completion of these works is £106,627.41.

CE0022 - Pumping to recover water levels to work area for the period 22/07/2019 – 05/08/2019. Due to the heavy rain and water being diverted from Strines Beck into the south end of the tunnel, additional pumping it is assumed it will be required to control the increased unexpected volumes of water entering the tunnel. AMCO suggest deploying operatives both throughout the day and night to operate the pump at a higher pumping rate and to take water samples as required by the higher pumping rates. This compensation event covers 3.8 weeks of day and night shifts including weekends. The cost that has been estimated for the completion of these works is £204,796.88.

CE0023 - Provision of a turbidity and pH monitor including installation and commission. Provision of additional pipework. Provision of 20 tonnes of type 1 to be installed to a section of the 'boggy' tunnel floor under the northern colliery arches. The cost that has been estimated for the completion of these works is £9,226.99.

CE0024 - In association with the Environmental Agency table of charges 2.3.39 - “Trade effluent and/or non-sewage effluent discharge with specific substances with a volume greater than 100m(3) a day and up to and including 1,000m(3) a day” the subsistence activity charge is £8,279.00. The Environmental Agency has invoiced the Contractor the amount of £6,944.41 for the charges on a pro-rata basis for the charge period 30/05/2019 to 31/03/2020. The cost, including the direct fee percentage uplift of 9% as applied through the contract with the HRE framework, has been calculated to be £7,569.40.

CE0025 - Damaged Generator. Following an increase of water flow into the tunnel on Saturday 28th August which resulted in a loss of 150m of the work area, water damage has been sustained to the 16.5k diesel generator which has been deemed beyond economical repair and damage has also been incurred to the mechanical seal, shaft and bearings on the pump. The cost has been estimated to £8,764.56.

CE0026 - Additional Security System at South Portal. Due to the authorised increase in water pumping volumes within the tunnel, the Contractor provided and installed a live feed camera with 24/7 access via remote footage at the working area to monitor the water levels and any unauthorised access via the south portal. The camera has been installed on 10/09/19 for an 8 week period, until 05/11/2019. The total cost includes the charge for use of the camera for an 8 week period, installation and decommissioning fees and has been estimated to £3,073.60.

CE0027 - Pumping to recover water levels to work area for the period 01/09/2019 – 31/10/2019. Due to bouts of heavy rain and water being diverted from Strines Beck into the south end of the tunnel, additional pumping was required to control the increased unexpected volumes of water entering the tunnel. AMCO are deploying

operatives both throughout the day and night to operate the pump at a higher pumping rate and to take water samples as required by the higher pumping rates. This compensation event covers 8.8 weeks of day and night shifts including weekends and the cost has been estimated to £503,401.99.

CE0027 - On-site security guard. Provision of on-site security officer from 15:00 to 23:00 every day for 7 days a week (total 56 hours per week). The cost includes 45No shifts with £120 per shift and the site set-up fee £162.50 from 17th September until 31st October 2019. The cost that has been estimated for the completion of these works is £5,562.50.

Anticipated Instructions

An early warning has been issued by AMCO to cover the expenses for 360° excavator, spider MEWP, telehandler and 17m boom which have all been damaged in association with the flooding issues that have occurred due the diversion of the Strines Beck. A provisional sum of £77,677.28 has been estimated to cover the works above. The exact cost is still to be determined.

Additional Ram Arch. An early warning will be issued by AMCO to cover the expenses for the installation of 52m of RAM Arch between Shafts No2 and No3.

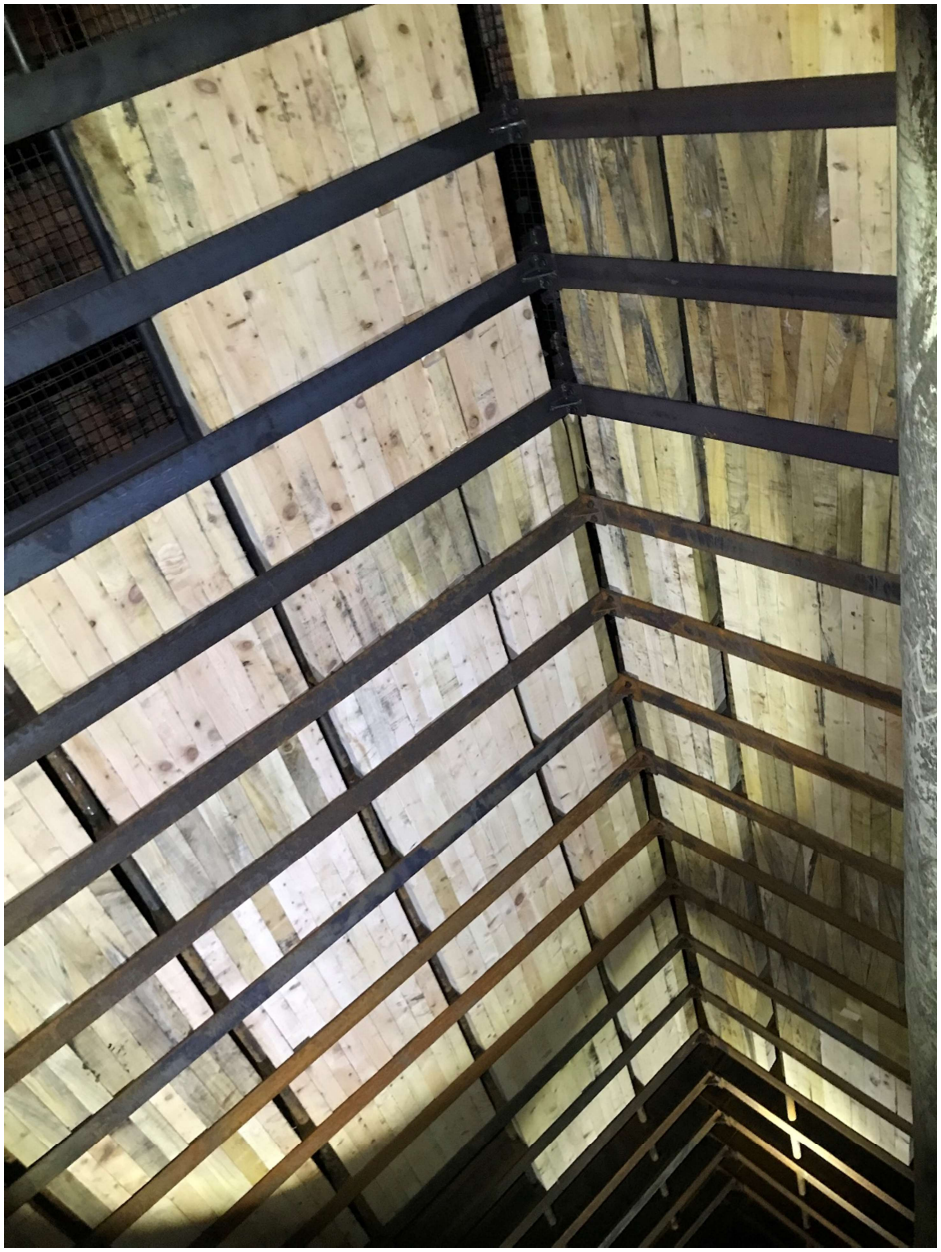
Anticipated Final Cost (AFC) – Phase 1a and 1b only

Original Contract Cost	£1,044,234.42
Agreed Variation Costs	£2,333,335.79
Early Warning Estimates	£77,677.28
Anticipated Final Cost (Original Contract Cost + Variations + Estimates)	£3,455,247.49

Progress photographs as at 26/09/2019

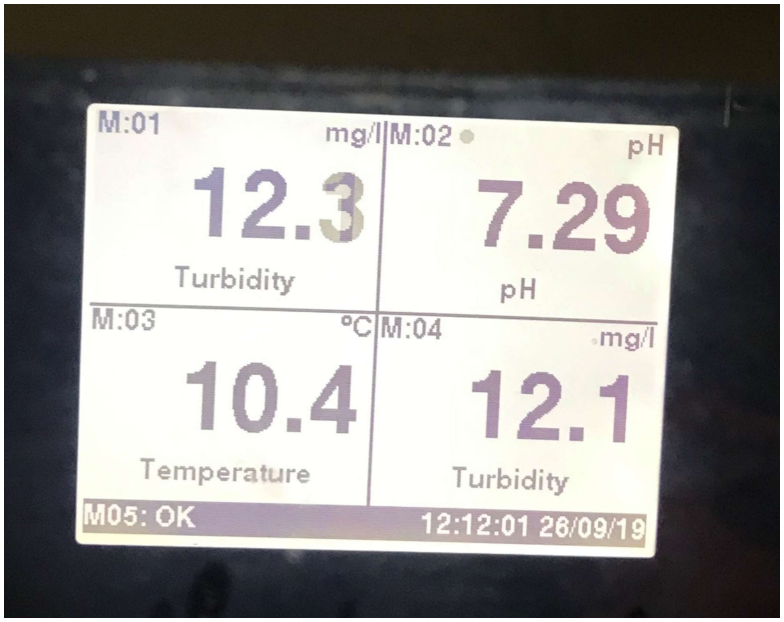
Photograph 1: *View of flooded formation, looking south, from ch.125 near Shaft 2 (red circle). The light coming through the south portal is now obvious.*

Photograph 2: *Marking of RAM Arch required at defected areas between Shafts 2 and 3.*



Photograph 2: *AMCO completed the placement of timber wedges between the colliery arches to provide a secure area at ch 90.5.*

Photograph 3: *Type 1 placement at the formation at ch 90.5.*



Photograph 5: *View of turbidity monitor readings.*

Photograph 6: *Condition of Station Road.*

Smith, Fiona

From: Dave Thomas 03 October 2019 13:11
Sent: Smith, Fiona; James.C.Wilson
To: Queensbury Tunnel
Subject:

Fiona/Jim,

I write to confirm our concerns about the condition of the lining at Shaft 2.

The CAT1 emergency situation granted by the EA allowed us to make a partial inspection of the area late last week, I say partial because the lower 400mm of the tunnel was still submerged in water and couldn't be assessed. In addition to this our inspection had to be cut short because the water started to advance so quickly that there was a real danger to staff in that area. The tower scaffold that facilitated access had to be left behind and is now lost to the water.

In the time we had we were able to witness that the condition of the refuge had deteriorated significantly compared to photographs taken in previous years. The lower half at each side of the refuge has collapsed into the water leaving behind what looks to be natural strata, the cracking that is present has increased in width and in length and the crown of the refuge appears to have sagged further. The bulged areas at each side are now more pronounced and all the mortar has been washed out of the joints due to the drawdown of water from the deliberate flooding.

There is also evidence that the condition of the crown and high haunches between Shaft 2 and Shaft 3 has also suffered, the defects are more pronounced and extensive than observed during previous inspections.

I apologise for the time to confirm but all our efforts have been concentrated on ensuring the safety of our staff and our equipment. I'm pleased to advise that there have been no accidents or injuries and that all the heavy plant has been taken to safety with no losses.

Due to the deliberate flooding Shaft 2 is again fully submerged, this will weaken the area further and increases the likelihood of further migration of defects into the shaft.

Regards

Dave Thomas
Regional Manager

AMCO·GIFFEN

Safety | **Professionalism** | **Innovation** | **Respect** | **Integrity** | **Teamwork**

Our Lifesaving Rules

Smith, Fiona

From: Wilson, James - York 03 October 2019 14:15
Sent: Smith, Fiona
To: Dave Thomas
Cc: RE: Queensbury Tunnel
Subject:

Fiona,

I have checked the description of the defects noted in Dave's email below against the most recent detailed examination report for that part of the tunnel. There appears to have been significant deterioration since February 2017. Please note the description of the defects to the refuge and associated photos from the inspection undertaken at that time.

127+05 Refuge Up	Brickwork, collapsed, Sidewall on the upside bulged, approx. 1ft., area 20m.sq.

Photo No. 20: 127+05 Refuge Up, Brickwork, collapsed, Sidewall on the upside bulged, approx. 1ft., area 20m.sq.

Photo No. 21: 127+05 Refuge Up, Brickwork, collapsed, Sidewall on the upside bulged, approx. 1ft., area 20m.sq.

The February 2017 examination report from which the above is extracted was provided to Amco as part of the Preconstruction Information Pack and will be the 'previous inspections' referred to in the email below.

It is also worth noting that the above was already a significant deterioration since our inspection in July 2012, as shown in the photograph below.

Clearly the flood water is causing a relatively rapid deterioration of the tunnel lining. It is of particular concern at this location however, due to the proximity of the eye of Shaft No. 2.

Regards

James Wilson | Principal Civil Engineer | Jacobs | | | www.jacobs.com

---

From: Dave Thomas
Sent: 03 October 2019 13:11
To: Fiona.Smith; Wilson, James - York
Subject: [EXTERNAL] Queensbury Tunnel

Fiona/Jim,

I write to confirm our concerns about the condition of the lining at Shaft 2.

The CAT1 emergency situation granted by the EA allowed us to make a partial inspection of the area late last week, I say partial because the lower 400mm of the tunnel was still submerged in water and couldn't be assessed. In addition to this our inspection had to be cut short because the water started to advance so quickly that there was a real danger to staff in that area. The tower scaffold that facilitated access had to be left behind and is now lost to the water.

In the time we had we were able to witness that the condition of the refuge had deteriorated significantly compared to photographs taken in previous years. The lower half at each side of the refuge has collapsed into the water leaving behind what looks to be natural strata, the cracking that is present has increased in width and in length and the crown of the refuge appears to have sagged further. The bulged areas at each side are now more pronounced and all the mortar has been washed out of the joints due to the drawdown of water from the deliberate flooding.

There is also evidence that the condition of the crown and high haunches between Shaft 2 and Shaft 3 has also suffered, the defects are more pronounced and extensive than observed during previous inspections.

I apologise for the time to confirm but all our efforts have been concentrated on ensuring the safety of our staff and our equipment. I'm pleased to advise that there have been no accidents or injuries and that all the heavy plant has

been taken to safety with no losses.

Due to the deliberate flooding Shaft 2 is again fully submerged, this will weaken the area further and increases the likelihood of further migration of defects into the shaft.

Regards

Dave Thomas
Regional Manager

AMCO·GIFFEN

Safety | **Professionalism** | **Innovation** | **Respect** | **Integrity** | **Teamwork**

Compensation Event Form CE0029

Structure Reference:	HQU/3D
Structure Name:	Queensbury Tunnel – Abandonment Works
Early Warning No. (if applicable)	N/A

Description of Change: (inc. reason for necessity of change)

Infilling Shaft 2

Infilling works to be completed at Shaft 2 from the top using normal weight granular material. Works to include secure site set-up, welfare and all necessary plant and materials. The Contractor has provided a provisional sum of £148.000,00 for the completion of these works.

Where this was discussed: ~~• Meeting~~ • Email ~~• Other~~	**Details:** (Which meeting? Who was it discussed between?) 14/10: E-mail provided from Dave Thomas (AMCO) to Despoina Katsouli & James Wilson (Jacobs).	
Date this was discussed:	14/10/2019	**Was the Client Present at the meeting?** ~~Yes/~~No

Project Impact:

1) Value £148.000,00
2) This has not caused a delay to the Project Completion.

Clause in Scope:	**61.1**

Programme (inc. start date and end date of work in addition to any key dates in between. Event must be split into a series of small tasks with their own set of dates, for start and completion):

The original programme will not be affected.

Signed: Project Manager

P.P.

HRE
Queensbury Tunnel, HQU/3D

Principal Contractor AMCO
Subcontractor N/A

Report Author Despoina Katsouli

General Comments on Performance

Jacobs Engineers, Despoina Katsouli & James Wilson, completed a supervision visit at Queensbury Tunnel, HQU/3D, for the Phase 1a & b element of the abandonment works on 9th and 18th October 2019.

AMCO have stopped the pumping works since 4th October 2019. All equipment and materials have been transferred near the set up area. The majority of plant and equipment has been decommissioned and transferred off site.

AMCO have brought to site all required equipment and materials needed for completion of on-site Lytag/cement tests to check the compressive strength at 28 days and the permeability of the mix. A trial test was completed on 9th October. Due to the fine composition of the Lytag and excessive use of cement, along with problems with the mist generator, AMCO postponed the completion of the test until they were supplied with the correct type of cement. During the next visit on 18th October, the trial test was successfully completed.

Station Road was in fair condition, tidy and relatively wet due to the heavy rainfall over the last days. No changes were noted since the last visit.

Plant and Labour

The following plant and staff were present on site:

Plant:

- 1No Welfare cabin
- 1No Office / Toilet cabin
- 1No Office (briefing room) cabin
- 1No Drying Room cabin
- 1No Storage cabin
- 1No 360 Excavator
- 1No Telehandler
- 3No Vans
- 1 No Electricity generators
- 1 No Diesel storage tank
- 1 No Water bowser
- 3No Tanks with silt busting chemicals

Staff:

- 1 No. AMCO Contracts Manager (Dave Thomas)
- 1 No. AMCO Site Manager (Martin Thomson)
- 1No. AMCO Site Supervisor (Richard Purcell)
- 7No. AMCO Site Operatives

Problems

The recently formed culvert at Strines Beck that diverts water into Strines cutting (south portal) has caused a large quantity of water to rapidly enter the tunnel and washed a large amount of debris further into the tunnel.

Health & Safety Audit

A health and safety audit was not completed by Jacobs on 09/10/2019 or 18/10/2019, however Jacobs Engineers were satisfied with arrangements from a Health and Safety perspective.

Progress

Activity	% complete at reporting date
1. Establish site set up	100
2. RAM Arch mesh sheets will be transported into the tunnel	100
3. RAM Arch Installation towards Shaft No. 8 (15m long)	100
4. RAM Arch Installation towards Shaft No. 6 (15m long)	100
5. RAM Arch Installation towards Shaft No. 4 (15m long)	100
6. Investigate the drainage system within the tunnel	100
7. Transfer and place all required plant within tunnel	100
8. Installation of ventilation system within the tunnel	100
9. Clearance of area beneath and between the collapses	100
10. Install colliery arches beneath and between the collapses	100
11. RAM Arch installation between collapses	100
12. Install colliery arches beneath significant bulge at ch.93	100
13. RAM Arch installation between the southern collapse and Shaft No. 3	100
14. RAM Arch Installation at Shaft No. 3 (15m long)	33
15. Installation of Silt Buster equipment	100
16. RAM Arch Installation at Shaft No. 2 (15m long)	N/A
17. RAM Arch Installation at Shaft No. 1 (15m long)	N/A
18. Demobilise from site	50

Programme

Contract Start Date	17/09/2018
Contract Period (Phase 1a and 1b only)	23 weeks
Construction Start	01/10/2018
Construction Completion	31/07/2019 TBC
Contract Completion Date (whole of the works)	31/10/2019

Potential/ Actual Claim Situations

There has been a significant delay to the programme due to the heavy rainfall and large amount of water entering the tunnel from the newly formed culvert at the Strines Beck, resulting in a flooded formation. The overall programme has been delayed and associated costs are to be provided by AMCO.

Delays incurred

Refer to the comments above.

Potential Delays to Future Progress

Any instances of heavy or prolonged rainfall may result in the current pumping system being overwhelmed, which will result in further delays to the current programme.

Engineers Instructions issued to date

CE0001 - Phase 1 works instructed at a value of £545,372.50. The AFC table below only accounts for the Phase 1 works and currently does not consider the problems noted above, as at this time the costs are unknown.

CE0002 - The use of a larger tracked excavator was required to allow safe excavation deeper into the trackbed. The cost to hire in this excavator was £5,403.04.

CE0003 - AMCO excavated an area exposing part of the drainage system inside the north portal. They installed precast concrete chamber rings and precast concrete biscuit with manhole on the top. The cost for the completion of these works was £7,432.71.

CE0004 - AMCO will use High Pressure water jetting in the drain to attempt to clear built up debris/silt. The cost for three days of jetting/surveying works was £12,510.39.

CE0005 - Following the submission of AMCO's application 1No for Phase 1 of the works at Queensbury, AMCO have identified that they have inadvertently excluded their charges for confined space safe system of works as per items A3591 & A3592. Based on these rates the cost of £35,289.10 was omitted from our price build up for CE001.This is for 6 weeks at rate A3592 and £29,740 for confined space training and safety equipment of rate A3591.

CE0006 – AMCO asked for an additional one days jetting and CCTV surveying were required over and above the allowance in CE0004. The cost for the completion of these works was £4,170.10.

CE0007 - Work through the collapses to install temporary protection arches & install the pumping system. Additional time for completion of the remaining Phase 1 RAM Arches. The extended programme includes a total of 14 weeks (including 2 week holiday period) to inspect and make safe the tunnel lining between 82ch and the first collapse at 90ch, clear the debris and install temporary colliery arches beneath the collapse areas. A further 3 weeks are included for the installation of the RAM Arch to shafts 1, 2 & 3. As this work is all being undertaken in advance of the main works, this extended programme will not cause a delay to the project completion. The cost for the completion of these works was £498,861.92.

CE0008 - The original plan was to ventilate from both ends and place the fans outside the tunnel. Due to the access restrictions at the South portal and the flooding, blocking the passage of air, AMCO provided an alternative solution using methods which will force air all the way through from one end of the tunnel to the furthest work location, rather than just halfway. Increasing the capacity of the fans and the ducting to ensure the delivery of the clean air requires more powerful generators (from 65KVA to 100KVA) and therefore the requirement for more diesel. In order to accommodate the fans in the tunnel AMCO need to house them in parallel on a steel frame and connect the outlet sides together via a Y shaped steel ducting, which will then lead into the 1200mm layflat mine ducting. As the fans have been transferred in the tunnel AMCO need to prevent any recirculation of the air. The cost for the completion of these works is £115,762.57.

CE0009 - During the Christmas holiday period, work has been carried out at Strines Cutting, at the south end of the tunnel to divert water from Strines Beck into the cutting and therefore the tunnel. This had significantly increased flooding levels in the tunnel which has caused progress of the works to slow considerably. AMCO had been instructed and installed a pumping system at approx. ch.85 with a 6" pipe. The water, before their management, was up to the ch.75. The cost for the management of this issue, delays and the continuous dewatering is £144,622.67.

CE0010 - During the Christmas holiday period, work has been carried out at Strines Cutting, at the south end of the tunnel to divert water from Strines Beck into the cutting and therefore the tunnel. This had significantly increased flooding levels in the tunnel which has damaged the tracked boom that had been placed in the formation had been submerged in water over this period. The cost for the repairs of the MEWP is £3,654.00.

CE0011 - Due to the increased possibility of mobilising silts and sediments when excavating the collapse debris from the tunnel, the pump had been turned off to avoid possible pollution of the running water at the cutting from unknown contamination of the debris. The installation of Siltbuster was requested and the cost covers the provision, delivery, installation and commission of three Silt buster units such as the period of 2 week hire up to

the end of March including the cost for the discharge permit obtained from the Environmental Agency. This cost excludes any chemicals such as Coagulant (PAC) and Flocculent (Concentration for dilution) and it is £19,743.92.

CE0012 - Gas monitoring surveys are required to be completed by the end of Phase 1a of abandonment works. The proposed value include attendance on site on an approximately fortnightly basis over a 12 week period (6No visits), and monitoring for ground gases at each of the 6No boreholes installed at the ventilation shafts in 2017/18. The preparation and delivery of a factual report at the completion of works is included. The cost for the completion of these surveys is £8,426.65.

CE0013 - 12No extra steel colliery arches with B503 mesh covering are required to be installed in an area with a significant bulge between the two collapses. This cost includes only procurement of materials and delivery at a cost of £20,125.92.

CE0014 – Due to the increased possibility of mobilising silts and sediments when excavating the collapse debris from the tunnel, the pump had been turned off to avoid possible pollution of the water at the cutting from unknown contamination of the debris. The installation of Siltbuster equipment was requested to be installed within the tunnel to allow the works to progress. A stand down period of 16 days was incurred whist water pumping was temporally discontinued from the 6th to the 27th of March 2019. The cost for the stand down period due to flooding is £66,906.91.

CE0015 – Provision and installation additional 105m of Ram Arch at the area between the two collapses and to support the remaining 3No shaft eyes and to erect 12No colliery arches (14No in total, however 2No already priced within CE0007 and the colliery arch material priced in CE0013). The EW cost estimate for this item of work was £612,225.66. However, upon reviewing progress of the works Jacobs instructed this work item with a reduced duration. The cost has been calculated based on 5 weeks (25 shifts) for the installation of the 105m of Ram Arch and 1 week (5 shifts) for the installation of the Colliery Arches. The cost for the supply and installation of the additional Ram Arch and colliery arches is £484,132.29. Progress will be monitored and an additional instruction may be necessary to cover any overrun.

CE0016 - Overtime due to pumping and ventilation issues. The price of the present compensation event is to consolidate the recent programme to date. This consists of 2No weeks of labour and equipment for pumping to regain the work area and the delayed excavating tunnel drainage to establish connection during the period 27th March – 05th April and 02nd – 03th May. Also, it includes weekend working in association with the water pumping and 2No shifts associated with the tunnel ventilation. The dates are covered are 06/13/20th January, 10th February, 30/31th March, 07/14/20/22/28th April and 05th May. The cost associated with this compensation event can be attributed to the recent works undertaken by others at Strines Beck to divert water into the Strines Cutting and the tunnel. The cost for the completion of these works was £110,579.06.

CE0017 - Pump damage in association with the flooding. AMCO commenced pumping water from the tunnel as an emergency priority due to the flooding issues; however, this was prior to the ventilation being set up and running. Due to the unexpected amount of water, the pump had been damaged and choking on its own exhaust fumes. This had led to soot adhering to the pump resulting in damage. The cost associated with this compensation event was £1,305.00.

CE0018 - Additional time associated with provision of additional Ram Arch and Colliery Arches between the two collapses - Continuation of CE0015. Due to delays in water pumping and Environmental Agency restrictions. Only 5 weeks of productivity was able to be carried out during the 6 weeks allowed for in CE0015. This residual week has been continued in this EW to a total of 1week (w/c 3rd June) plus three weekend shifts (19/05, 26/05 and 02/06). The cost that has been calculated for the completion of these works is £50,597.02.

CE0018a - Additional time associated with the installation of Colliery Arches beneath the second collapse - Continuation of CE007. Due to delays due to increased water pumping an extended duration of 1.4 weeks and weekend working has been required to complete the colliery arches through both collapses. The additional time has been continued in this EW to a total of 1.4weeks (w/c 1st July) plus two weekend shifts (30/06 & 07/07). The cost that has been estimated for the completion of these works is £63,692.13.

CE0019 - Pumping to recover water levels to work area. Due to the heavy rain and water being diverted from Strines Beck into the south end of the tunnel, additional pumping was required to control the increased unexpected volumes of water entering the tunnel, discovered on Sunday 9th June 2019. AMCO had deployed operatives both throughout the day and night to operate the pump at a higher pumping rate and to take water samples as required by the higher pumping rates. This compensation event covers 3 weeks of day and night shifts including weekends. The cost that has been estimated for the completion of these works is £165,005.46.

CE0020 - Provision and installation of additional 33m of RAM Arch between the southern collapse and Shaft No3 from dates 10/07/19 to the 23/07/19 including two weekend shifts (14/07 and 21/07). The cost that has been estimated for the completion of these works is £164,953.52.

CE0021 - Pumping to recover water levels to work area for the period 22/07/2019 – 05/08/2019. Due to the heavy rain and water being diverted from Strines Beck into the south end of the tunnel, additional pumping was required to control the increased unexpected volumes of water entering the tunnel. AMCO had deployed operatives both throughout the day and night to operate the pump at a higher pumping rate and to take water samples as required by the higher pumping rates. This compensation event covers 1.8 weeks of day and night shifts including weekends. The cost that has been estimated for the completion of these works is £106,627.41.

CE0022 - Pumping to recover water levels to work area for the period 22/07/2019 – 05/08/2019. Due to the heavy rain and water being diverted from Strines Beck into the south end of the tunnel, additional pumping it is assumed it will be required to control the increased unexpected volumes of water entering the tunnel. AMCO suggest deploying operatives both throughout the day and night to operate the pump at a higher pumping rate and to take water samples as required by the higher pumping rates. This compensation event covers 3.8 weeks of day and night shifts including weekends. The cost that has been estimated for the completion of these works is £204,796.88.

CE0023 - Provision of a turbidity and pH monitor including installation and commission. Provision of additional pipework. Provision of 20 tonnes of type 1 to be installed to a section of the 'boggy' tunnel floor under the northern colliery arches. The cost that has been estimated for the completion of these works is £9,226.99.

CE0024 - In association with the Environmental Agency table of charges 2.3.39 - “Trade effluent and/or non-sewage effluent discharge with specific substances with a volume greater than 100m(3) a day and up to and including 1,000m(3) a day” the subsistence activity charge is £8,279.00. The Environmental Agency has invoiced the Contractor the amount of £6,944.41 for the charges on a pro-rata basis for the charge period 30/05/2019 to 31/03/2020. The cost, including the direct fee percentage uplift of 9% as applied through the contract with the HRE framework, has been calculated to be £7,569.40.

CE0025 - Damaged Generator. Following an increase of water flow into the tunnel on Saturday 28th August which resulted in a loss of 150m of the work area, water damage has been sustained to the 16.5k diesel generator which has been deemed beyond economical repair and damage has also been incurred to the mechanical seal, shaft and bearings on the pump. The cost has been estimated to £8,764.56.

CE0026 - Additional Security System at South Portal. Due to the authorised increase in water pumping volumes within the tunnel, the Contractor provided and installed a live feed camera with 24/7 access via remote footage at the working area to monitor the water levels and any unauthorised access via the south portal. The camera has been installed on 10/09/19 for an 8 week period, until 05/11/2019. The total cost includes the charge for use of the camera for an 8 week period, installation and decommissioning fees and has been estimated to £3,073.60. TO BE REVISED.

CE0027 - Pumping to recover water levels to work area for the period 01/09/2019 – 31/10/2019. Due to bouts of heavy rain and water being diverted from Strines Beck into the south end of the tunnel, additional pumping was required to control the increased unexpected volumes of water entering the tunnel. AMCO are deploying operatives both throughout the day and night to operate the pump at a higher pumping rate and to take water samples as required by the higher pumping rates. This compensation event covers 8.8 weeks of day and night shifts including weekends and the cost has been estimated to £503,401.99. TO BE REVISED.

CE0028 - On-site security guard. Provision of on-site security officer from 15:00 to 23:00 every day for 7 days a week (total 56 hours per week). The cost includes 45No shifts with £120 per shift and the site set-up fee £162.50 from 17th September until 31st October 2019. The cost that has been estimated for the completion of these works is £5,562.50. TO BE REVISED.

CE0029 - Infilling Shaft 2. Infilling works to be completed at Shaft 2 from the top using normal weight granular material. Works to include secure site set-up, welfare and all necessary plant and materials. The cost that has been estimated for the completion of these works is £148.000,00.

Anticipated Instructions

An early warning has been issued by AMCO to cover the expenses for 360° excavator, spider MEWP, telehandler and 17m boom which have all been damaged in association with the flooding issues that have occurred due the diversion of the Strines Beck. A provisional sum of £77,677.28 has been estimated to cover the works above. The exact cost is still to be determined.

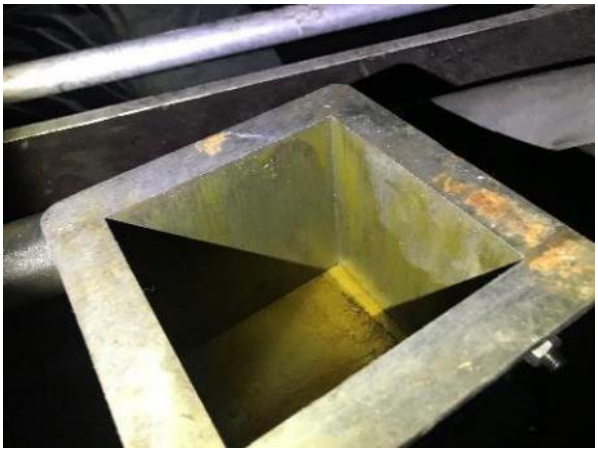
Testing of cement infused lytag. AMCO to provide material and plant for the completion of No.6 on-site tests of Lytag and cement. The cost that has been estimated for the completion of these works is £4,373.62.

Anticipated Final Cost (AFC) – Phase 1a and 1b only

Original Contract Cost	£1,044,234.42	
Agreed Variation Costs	£2,481,335.79	*To be revised*
Early Warning Estimates	£82.050.90	*To be revised*
Anticipated Final Cost (Original Contract Cost + Variations + Estimates)	£3,607,621.11	*To be revised*

Progress photographs as at 09/10/2019 & 18/10/2019

Photograph 1: *Collection and storage of remaining materials from the working area near Shaft 2.*



Photograph 2: *Metal boxes 150mm x 150mm provided by AMCO for the completion of the onsite cement/lytag tests.*

Photograph 3: *Metal boxes filled with cement/lytag on 18th October to check the compressive strength at 28 days and the permeability of the mix. The tests will be ready on 14th November 2019.*

Photograph 4: *First trial test of the machines for the onsite cement/lytag tests on 9th October.*

Photograph 5: *Final trial test of the machines for the onsite cement/lytag tests on 18th October.*

Photograph 6: *Cement infused lytag material on 9th October 2019.*

Photograph 7: *Cement infused lytag material on 18th October 2019.*

Photograph 8: *Condition of Station Road.*

HRE
Queensbury Tunnel, HQU/3D

Principal Contractor AMCO
Subcontractor N/A

Report Author James Wilson

General Comments on Performance

Jacobs Engineer, James Wilson completed a supervision visit at Queensbury Tunnel, HQU/3D, for emergency works at Shaft No 2 on 22nd October 2019.

The emergency works at Shaft No 2 commenced on the morning of 21st October due to concerns relating to the integrity and stability of the tunnel lining in close proximity to the base of the shaft. The site was established in the early afternoon of the same day and 80 tonnes of Class 6N limestone aggregate was deposited into the tunnel via an opening at the cap of the shaft. On the day of the site visit a further 445 Tonnes of aggregate was deposited into the tunnel. The combined volume of aggregate, at approximately 260m3 is 20% of the total volume of aggregate required to fill the shaft. During the site visit, members of the Queensbury Tunnel Society (QTS) and a crew from BBC news visited the site. Their attendance did not affect the progress of the works. Additionally, one of the landowners at the far end of the bridleway had placed their own order for 30 deliveries of aggregate to their farm. AMCO successfully incorporated these additional vehicle movements into their traffic / material delivery management system without detriment to the progress of the works.

Plant and Labour

The following plant and staff were present on site:

Plant:

- 1No Welfare cabin
- 1No 360 Excavator
- 1No Welfare Van
- 2 No Electricity generators
- 2 No 4m long conveyors
- 1 No Black Diamond Remote Security Camera
- 1 No Lighting Tower

Staff:

- 1 No. AMCO Contracts Manager (Dave Thomas)
- 1 No. AMCO Site Manager (Martin Thomson)
- 1No. AMCO Site Supervisor (Richard Purcell)
- 5No. AMCO Site Operatives

Problems

None.

Health & Safety Audit

A health and safety audit was not completed by Jacobs on 22/10/2019, however the Jacobs Engineer was satisfied with arrangements from a Health and Safety perspective.

Progress

Activity	% complete at reporting date
1. Establish site set up	100
2. RAM Arch mesh sheets will be transported into the tunnel	100
3. RAM Arch Installation towards Shaft No. 8 (15m long)	100
4. RAM Arch Installation towards Shaft No. 6 (15m long)	100
5. RAM Arch Installation towards Shaft No. 4 (15m long)	100
6. Investigate the drainage system within the tunnel	100
7. Transfer and place all required plant within tunnel	100
8. Installation of ventilation system within the tunnel	100
9. Clearance of area beneath and between the collapses	100
10. Install colliery arches beneath and between the collapses	100
11. RAM Arch installation between collapses	100
12. Install colliery arches beneath significant bulge at ch.93	100
13. RAM Arch installation between the southern collapse and Shaft No. 3	100
14. RAM Arch Installation at Shaft No. 3 (15m long)	33
15. Installation of Silt Buster equipment	100
16. RAM Arch Installation at Shaft No. 2 (15m long)	N/A
17. RAM Arch Installation at Shaft No. 1 (15m long)	N/A
18. Set-up secure site area at Shaft No 2	100
19. Filling Shaft No 2 from ground surface level	20
20. Demobilise from site (Shaft No 2 area)	0
21. Demobilise from site (north portal area)	50

Programme

Contract Start Date	17/09/2018
Contract Period (Phase 1a and 1b only)	23 weeks
Construction Start	01/10/2018
Construction Completion	31/07/2019 TBC
Contract Completion Date (whole of the works)	31/10/2019

Shaft No 2 works

Start date	21/10/2019
Anticipated completion date	01/11/2019

Potential/ Actual Claim Situations

There has been a significant delay to the programme due to the heavy rainfall and large amount of water entering the tunnel from the newly formed culvert at the Strines Beck, resulting in a flooded formation. The overall programme has been delayed and associated costs are to be provided by AMCO.

Delays incurred

None in relation to the emergency works at Shaft No 2. Refer to the comments above relating to problems inside the tunnel.

Potential Delays to Future Progress

It is feasible that members of the public could attempt to halt or disrupt the works to Shaft No 2. However, over the first two working days, there has been little attendance to the working area by members of the public.

Engineers Instructions issued to date

CE0001 - Phase 1 works instructed at a value of £545,372.50. The AFC table below only accounts for the Phase 1 works and currently does not consider the problems noted above, as at this time the costs are unknown.

CE0002 - The use of a larger tracked excavator was required to allow safe excavation deeper into the trackbed. The cost to hire in this excavator was £5,403.04.

CE0003 - AMCO excavated an area exposing part of the drainage system inside the north portal. They installed precast concrete chamber rings and precast concrete biscuit with manhole on the top. The cost for the completion of these works was £7,432.71.

CE0004 - AMCO will use High Pressure water jetting in the drain to attempt to clear built up debris/silt. The cost for three days of jetting/surveying works was £12,510.39.

CE0005 - Following the submission of AMCO's application 1No for Phase 1 of the works at Queensbury, AMCO have identified that they have inadvertently excluded their charges for confined space safe system of works as per items A3591 & A3592. Based on these rates the cost of £35,289.10 was omitted from our price build up for CE001.This is for 6 weeks at rate A3592 and £29,740 for confined space training and safety equipment of rate A3591.

CE0006 – AMCO asked for an additional one days jetting and CCTV surveying were required over and above the allowance in CE0004. The cost for the completion of these works was £4,170.10.

CE0007 - Work through the collapses to install temporary protection arches & install the pumping system. Additional time for completion of the remaining Phase 1 RAM Arches. The extended programme includes a total of 14 weeks (including 2 week holiday period) to inspect and make safe the tunnel lining between 82ch and the first collapse at 90ch, clear the debris and install temporary colliery arches beneath the collapse areas. A further 3 weeks are included for the installation of the RAM Arch to shafts 1, 2 & 3. As this work is all being undertaken in advance of the main works, this extended programme will not cause a delay to the project completion. The cost for the completion of these works was £498,861.92.

CE0008 - The original plan was to ventilate from both ends and place the fans outside the tunnel. Due to the access restrictions at the South portal and the flooding, blocking the passage of air, AMCO provided an alternative solution using methods which will force air all the way through from one end of the tunnel to the furthest work location, rather than just halfway. Increasing the capacity of the fans and the ducting to ensure the delivery of the clean air requires more powerful generators (from 65KVA to 100KVA) and therefore the requirement for more diesel. In order to accommodate the fans in the tunnel AMCO need to house them in parallel on a steel frame and connect the outlet sides together via a Y shaped steel ducting, which will then lead into the 1200mm layflat mine ducting. As the fans have been transferred in the tunnel AMCO need to prevent any recirculation of the air. The cost for the completion of these works is £115,762.57.

CE0009 - During the Christmas holiday period, work has been carried out at Strines Cutting, at the south end of the tunnel to divert water from Strines Beck into the cutting and therefore the tunnel. This had significantly increased flooding levels in the tunnel which has caused progress of the works to slow considerably. AMCO had been instructed and installed a pumping system at approx. ch.85 with a 6" pipe. The water, before their management, was up to the ch.75. The cost for the management of this issue, delays and the continuous dewatering is £144,622.67.

CE0010 - During the Christmas holiday period, work has been carried out at Strines Cutting, at the south end of the tunnel to divert water from Strines Beck into the cutting and therefore the tunnel. This had significantly increased flooding levels in the tunnel which has damaged the tracked boom that had been placed in the formation had been submerged in water over this period. The cost for the repairs of the MEWP is £3,654.00.

CE0011 - Due to the increased possibility of mobilising silts and sediments when excavating the collapse debris from the tunnel, the pump had been turned off to avoid possible pollution of the running water at the cutting from unknown contamination of the debris. The installation of Siltbuster was requested and the cost covers the provision, delivery, installation and commission of three Silt buster units such as the period of 2 week hire up to

the end of March including the cost for the discharge permit obtained from the Environmental Agency. This cost excludes any chemicals such as Coagulant (PAC) and Flocculent (Concentration for dilution) and it is £19,743.92.

CE0012 - Gas monitoring surveys are required to be completed by the end of Phase 1a of abandonment works. The proposed value include attendance on site on an approximately fortnightly basis over a 12 week period (6No visits), and monitoring for ground gases at each of the 6No boreholes installed at the ventilation shafts in 2017/18. The preparation and delivery of a factual report at the completion of works is included. The cost for the completion of these surveys is £8,426.65.

CE0013 - 12No extra steel colliery arches with B503 mesh covering are required to be installed in an area with a significant bulge between the two collapses. This cost includes only procurement of materials and delivery at a cost of £20,125.92.

CE0014 – Due to the increased possibility of mobilising silts and sediments when excavating the collapse debris from the tunnel, the pump had been turned off to avoid possible pollution of the water at the cutting from unknown contamination of the debris. The installation of Siltbuster equipment was requested to be installed within the tunnel to allow the works to progress. A stand down period of 16 days was incurred whist water pumping was temporally discontinued from the 6th to the 27th of March 2019. The cost for the stand down period due to flooding is £66,906.91.

CE0015 – Provision and installation additional 105m of Ram Arch at the area between the two collapses and to support the remaining 3No shaft eyes and to erect 12No colliery arches (14No in total, however 2No already priced within CE0007 and the colliery arch material priced in CE0013). The EW cost estimate for this item of work was £612,225.66. However, upon reviewing progress of the works Jacobs instructed this work item with a reduced duration. The cost has been calculated based on 5 weeks (25 shifts) for the installation of the 105m of Ram Arch and 1 week (5 shifts) for the installation of the Colliery Arches. The cost for the supply and installation of the additional Ram Arch and colliery arches is £484,132.29. Progress will be monitored and an additional instruction may be necessary to cover any overrun.

CE0016 - Overtime due to pumping and ventilation issues. The price of the present compensation event is to consolidate the recent programme to date. This consists of 2No weeks of labour and equipment for pumping to regain the work area and the delayed excavating tunnel drainage to establish connection during the period 27th March – 05th April and 02nd – 03th May. Also, it includes weekend working in association with the water pumping and 2No shifts associated with the tunnel ventilation. The dates are covered are 06/13/20th January, 10th February, 30/31th March, 07/14/20/22/28th April and 05th May. The cost associated with this compensation event can be attributed to the recent works undertaken by others at Strines Beck to divert water into the Strines Cutting and the tunnel. The cost for the completion of these works was £110,579.06.

CE0017 - Pump damage in association with the flooding. AMCO commenced pumping water from the tunnel as an emergency priority due to the flooding issues; however, this was prior to the ventilation being set up and running. Due to the unexpected amount of water, the pump had been damaged and choking on its own exhaust fumes. This had led to soot adhering to the pump resulting in damage. The cost associated with this compensation event was £1,305.00.

CE0018 - Additional time associated with provision of additional Ram Arch and Colliery Arches between the two collapses - Continuation of CE0015. Due to delays in water pumping and Environmental Agency restrictions. Only 5 weeks of productivity was able to be carried out during the 6 weeks allowed for in CE0015. This residual week has been continued in this EW to a total of 1week (w/c 3rd June) plus three weekend shifts (19/05, 26/05 and 02/06). The cost that has been calculated for the completion of these works is £50,597.02.

CE0018a - Additional time associated with the installation of Colliery Arches beneath the second collapse - Continuation of CE007. Due to delays due to increased water pumping an extended duration of 1.4 weeks and weekend working has been required to complete the colliery arches through both collapses. The additional time has been continued in this EW to a total of 1.4weeks (w/c 1st July) plus two weekend shifts (30/06 & 07/07). The cost that has been estimated for the completion of these works is £63,692.13.

CE0019 - Pumping to recover water levels to work area. Due to the heavy rain and water being diverted from Strines Beck into the south end of the tunnel, additional pumping was required to control the increased unexpected volumes of water entering the tunnel, discovered on Sunday 9th June 2019. AMCO had deployed operatives both throughout the day and night to operate the pump at a higher pumping rate and to take water samples as required by the higher pumping rates. This compensation event covers 3 weeks of day and night shifts including weekends. The cost that has been estimated for the completion of these works is £165,005.46.

CE0020 - Provision and installation of additional 33m of RAM Arch between the southern collapse and Shaft No3 from dates 10/07/19 to the 23/07/19 including two weekend shifts (14/07 and 21/07). The cost that has been estimated for the completion of these works is £164,953.52.

CE0021 - Pumping to recover water levels to work area for the period 22/07/2019 – 05/08/2019. Due to the heavy rain and water being diverted from Strines Beck into the south end of the tunnel, additional pumping was required to control the increased unexpected volumes of water entering the tunnel. AMCO had deployed operatives both throughout the day and night to operate the pump at a higher pumping rate and to take water samples as required by the higher pumping rates. This compensation event covers 1.8 weeks of day and night shifts including weekends. The cost that has been estimated for the completion of these works is £106,627.41.

CE0022 - Pumping to recover water levels to work area for the period 22/07/2019 – 05/08/2019. Due to the heavy rain and water being diverted from Strines Beck into the south end of the tunnel, additional pumping it is assumed it will be required to control the increased unexpected volumes of water entering the tunnel. AMCO suggest deploying operatives both throughout the day and night to operate the pump at a higher pumping rate and to take water samples as required by the higher pumping rates. This compensation event covers 3.8 weeks of day and night shifts including weekends. The cost that has been estimated for the completion of these works is £204,796.88.

CE0023 - Provision of a turbidity and pH monitor including installation and commission. Provision of additional pipework. Provision of 20 tonnes of type 1 to be installed to a section of the 'boggy' tunnel floor under the northern colliery arches. The cost that has been estimated for the completion of these works is £9,226.99.

CE0024 - In association with the Environmental Agency table of charges 2.3.39 - “Trade effluent and/or non-sewage effluent discharge with specific substances with a volume greater than 100m(3) a day and up to and including 1,000m(3) a day” the subsistence activity charge is £8,279.00. The Environmental Agency has invoiced the Contractor the amount of £6,944.41 for the charges on a pro-rata basis for the charge period 30/05/2019 to 31/03/2020. The cost, including the direct fee percentage uplift of 9% as applied through the contract with the HRE framework, has been calculated to be £7,569.40.

CE0025 - Damaged Generator. Following an increase of water flow into the tunnel on Saturday 28th August which resulted in a loss of 150m of the work area, water damage has been sustained to the 16.5k diesel generator which has been deemed beyond economical repair and damage has also been incurred to the mechanical seal, shaft and bearings on the pump. The cost has been estimated to £8,764.56.

CE0026 - Additional Security System at South Portal. Due to the authorised increase in water pumping volumes within the tunnel, the Contractor provided and installed a live feed camera with 24/7 access via remote footage at the working area to monitor the water levels and any unauthorised access via the south portal. The camera has been installed on 10/09/19 for an 8 week period, until 05/11/2019. The total cost includes the charge for use of the camera for an 8 week period, installation and decommissioning fees and has been estimated to £3,073.60. TO BE REVISED.

CE0027 - Pumping to recover water levels to work area for the period 01/09/2019 – 31/10/2019. Due to bouts of heavy rain and water being diverted from Strines Beck into the south end of the tunnel, additional pumping was required to control the increased unexpected volumes of water entering the tunnel. AMCO are deploying operatives both throughout the day and night to operate the pump at a higher pumping rate and to take water samples as required by the higher pumping rates. This compensation event covers 8.8 weeks of day and night shifts including weekends and the cost has been estimated to £503,401.99. TO BE REVISED.

CE0028 - On-site security guard. Provision of on-site security officer from 15:00 to 23:00 every day for 7 days a week (total 56 hours per week). The cost includes 45No shifts with £120 per shift and the site set-up fee £162.50 from 17th September until 31st October 2019. The cost that has been estimated for the completion of these works is £5,562.50. TO BE REVISED.

CE0029 - Infilling Shaft 2. Infilling works to be completed at Shaft 2 from the top using normal weight granular material. Works to include secure site set-up, welfare and all necessary plant and materials. The cost that has been estimated for the completion of these works is £148.000,00.

Anticipated Instructions

An early warning has been issued by AMCO to cover the expenses for 360° excavator, spider MEWP, telehandler and 17m boom which have all been damaged in association with the flooding issues that have occurred due the diversion of the Strines Beck. A provisional sum of £77,677.28 has been estimated to cover the works above. The exact cost is still to be determined.

Testing of cement infused lytag. AMCO to provide material and plant for the completion of No.6 on-site tests of Lytag and cement. The cost that has been estimated for the completion of these works is £4,373.62.

Anticipated Final Cost (AFC) – Phase 1a and 1b only

Original Contract Cost	£1,044,234.42	
Agreed Variation Costs	£2,481,335.79	*To be revised*
Early Warning Estimates	£82.050.90	*To be revised*
Anticipated Final Cost (Original Contract Cost + Variations + Estimates)	£3,607,621.11	*To be revised*

Progress photographs as at 22/10/2019

Photograph 1: *The 360excavator and a small stockpile of Class 6N aggregate in the foreground with two 4m conveyors slotted into an opening in the side of the shaft protection wall in the background.*

Photograph 2: *View inside shaft protection wall.*

Photograph 3: *Aggregate being deposited onto conveyor and transported into shaft.*

Photograph 4: *Aggregate being delivered to site (note: QTS and BBC crew to the right of the photo).*

Compensation Event Form CE0030

Structure Reference:	HQU/3D
Structure Name:	Queensbury Tunnel – Abandonment Works
Early Warning No. (if applicable)	EW25

Description of Change: (inc. reason for necessity of change)

Plant damage caused by flooding

A 360° excavator, spider MEWP, telehandler and 17m boom which have all been damaged in association with the flooding issues that have occurred due the diversion of the Strines Beck.

Where this was discussed: • ~~Meeting~~ • Email • ~~Other~~	**Details:** (Which meeting? Who was it discussed between?) 07/10: E-mail provided from Tom Judge (AMCO) to Despoina Katsouli & James Wilson (Jacobs).	
Date this was discussed:	07/10/2019	**Was the Client Present at the meeting?** ~~Yes/~~No

Project Impact:

1) Value £77,677.28
2) This has not caused a delay to the Project Completion.

Clause in Scope:	**61.1**

Programme (inc. start date and end date of work in addition to any key dates in between. Event must be split into a series of small tasks with their own set of dates, for start and completion):

The original programme will not be affected.

Signed: Project Manager

P.P.

Compensation Event Form CE0031

Structure Reference:	HQU/3D		
Structure Name:	Queensbury Tunnel – Abandonment Works		
Early Warning No. (if applicable)	EW31		
Description of Change: (inc. reason for necessity of change) Testing of cement infused lytag AMCO to provide equipment and materials needed for completion of on-site Lytag/cement tests to check the compressive strength at 28 days and the permeability of the mix.			
Where this was discussed: • ~~Meeting~~ • Email • ~~Other~~	**Details:** (Which meeting? Who was it discussed between?) 24/10: E-mail provided from Tom Judge (AMCO) to Despoina Katsouli & James Wilson (Jacobs).		
Date this was discussed:	24/10/2019	**Was the Client Present at the meeting?**	~~Yes/~~No
Project Impact: 1) Value £5,507.90 2) This has not caused a delay to the Project Completion.			
Clause in Scope:	**61.1**		
Programme (inc. start date and end date of work in addition to any key dates in between. Event must be split into a series of small tasks with their own set of dates, for start and completion): The original programme will not be affected.			
Signed: **P.P.** **Project Manager**			

Smith, Fiona

From: Dave Thomas 07 November 2019 11:48
Sent: Smith, Fiona
To: Wilson, James - York; Katsouli, Despoina
Cc: Station Road Queensbury
Subject: SINEO-30819110712130.pdf
Attachments:

Hi Fiona,

Now that we have partially demobilised the tunnel and completed the works at Shaft 2 can the £15K that sat in Phase B be released in order to improve the condition of Station Road?

The £15K will be spent wisely, on concrete, and no labour cost will be applied.

On a separate note I had another read through the Aecom report commissioned by Bradford Council and found a couple of comments that may help you to defend the decision to infill Shaft 2, I've highlighted those points on the attached.

One other statement that QTS are making is that no one from AMCO ever saw the condition of the refuge at Shaft 2 before the flooding. On Saturday 18th June 2018 we made a confined space entry at each end of the tunnel in order to capture the condition as part of the tender process, Mr Sunderland may remember me phoning and asking for permission?

Regards

Dave Thomas
Regional Manager

AMCO·GIFFEN

Safety | Professionalism | Innovation | Respect | Integrity | Teamwork

Our Lifesaving Rules

T: 01226 243413
M: 07887 825856
E: Dave.Thomas@amcogiffen.co.uk

www.amcogiffen.co.uk

7. Summary

A detailed condition survey and assessment was undertaken to identify defects in the tunnel lining, and assess the current stability of the tunnel in order to inform the planning process for Queensbury Tunnel. The suite of tunnel survey works included; photographic recording, tactile hammer tapping, laser sweeping of the tunnel profile, Ground Penetrating Radar (GPR) of the tunnel lining, masonry sampling and testing, coring of the tunnel lining, and trail pitting of the invert.

The investigations of the tunnel recorded significant deterioration and deformation of the tunnel lining as well as extensive defects including a number of major structural issues. The observed major defects in the tunnel are summarized below;

- Water ingress was observed throughout the tunnel resulting in a host of durability risks;
- Tunnel lining showing significant signs of deterioration including bulging, cracking and spalling;
- Substantial longitudinal hinge cracks, indicating significant deformations, were present at locations in the tunnel crown and haunch;
- Delamination of the brickwork lining and/or voids behind the tunnel lining present in extensive areas behind the tunnel sidewalls.

Based on the investigative work carried out and the type and extent of defects recorded, it is clear that the condition of Queensbury Tunnel has declined due to lack of ongoing maintenance since the inspections conducted by QTS in 2016 and Carillion in 2017. Evidence of fresh brick-fall and the development of longitudinal cracks, was noted during the inspection.

Key points of note from the investigations and surveys are summarised by type of work carried out below. These results feed in the post examination assessment report (60582061 REP005).

Visual and Tactile Survey:

- The visual survey confirmed the following defects in the lining:
  - 1140m^2 of spalling brickwork
  - 420m^2 of missing/loose
  - 1915m^2 of open jointing
- Visual surveys observed ongoing deterioration through developed longitudinal cracking

Point Cloud Survey:

- The point cloud survey identified 435m length of out of profile lining.
- The following modes of deformation were identified;
  - A 'flattening' of the haunches (2'O'clock and 10 O'clock) through localised lengths of tunnel
  - Asymmetrical inward bulging of one haunch
  - Inward bulging of one sidewall

Geophysical Investigation:

- The GPR found the following lining thicknesses:
  - Lower stone masonary sidewall to be ~250mm thick
  - Upper brick sidewall to be ~350mm thick
- The lining was formed from material of different densities
  Voiding, discontinuities and delamination in extensive areas of the lining

Intrusive Investigation:

- Laboratory testing of samples obtained on site verified material properties
- Trail pits verified the formation material and the presence of a footing
- Intrusive lining cores confirmed the presence of hard facing stone masonry on the intrados only, calibrating the GPR survey results

A further report on the estimation of the residual structural capacity and possible remedial works that need to be undertaken to bring Queensbury Tunnel back to an acceptable condition in order to facilitate re-opening on the tunnel is provided. Refer to AECOM Technical Summary (60582061 REP003).

Table 8: Sprayed Concrete Lining Properties

Material	Parameter	Design Value
SCL	Nominal Thickness	300mm
	Long Term Stiffness	15GPa
	Poisson Ratio	0.2

It has been assumed that the application of the SCL to the brick lining would result in the both linings acting as a composite. As the linings acts as a composite an equivalent lining strength to resist the loads has been calculated. This has been calculated as 9.096 MPa for a total section thickness of 850mm.

The moments and axial forces have been plotted on a structural interaction diagram to assess the capacity of the composite lining (Appendix B). This plot indicates that the combined 850mm lining is sufficient to resist the predicted ground stress, and as such 300mm SCL is deemed sufficient. This is an initial indication of the thickness and will be subject to a detailed evaluation and design at a later stage.

2.8 Effects of flooding on the tunnel

It has been recorded that the southern cutting floods due to the backfilling works and the unreliability of the central drainage culvert located below the ballast. The level and extent of flooding within the tunnel varies with the seasons. The presence of water and the rise and fall of the water level is expected to have a detrimental impact on the condition of the tunnel lining. Within the limitation of this study, we were unable to model the effects, for the applied hydrostatic loading on the tunnel for the flooding and drawdown. However, submergence of the tunnel lining and rapid draw down of water has had the following effects on the tunnel;

- Missing mortar from masonry and brick joints throughout the flooded section resulting in loose bricks and missing bricks;
- Accelerated deterioration of the tunnel lining;
- Draining and undraining of ground surrounding tunnel lining causing consolidation behind the lining;
- Large volumes of debris dragged into the tunnel through flooding.
- Particular issues arise at the deformed section of lining and partially collapsed refuge at Ch1936 (SM 127).

Parker, Dave

From: Parker, Dave
Sent: 06 November 2019 13:05
To: Lynham, Chris; Marshall, Richard; Hart, Jennifer
Cc: Maunders, Michaela; Glavina, Claire; Moore, Kathryn
Subject: RE: Queensbury Tunnel latest

Chris

We need to keep responses to a minimum. There are unsubstantiated claims here that we need to be mindful of plus the questions from the media do not seem to match the words in the QTS post.

I would suggest:

“We can confirm that the emergency works at Shaft 2 were completed at 11am on Monday 28th October 2019. The shaft is now fully stabilised and no longer represents a risk to the community, which is our priority in all instances.

The scope, nature and immediacy of the works were agreed with the offices of the Secretary of State for Transport (the owner of the tunnel) who also took the highest level of legal advice before the works commenced.”

Kind Regards

Dave Parker
Historical Railways Estate (on behalf of Department for Transport)
Highways England | 37 Tanner Row | York | Y01 6WP
General Office: +44 (0) 1904 621924
Mobile: + 44 (0) 7714 431547
Web: http://www.highwaysengland.co.uk

From: Lynham, Chris
Sent: 06 November 2019 12:24
To: Marshall, Richard ; Hart, Jennifer ; Parker, Dave
Cc: Maunders, Michaela ; Glavina, Claire
; Moore, Kathryn
Subject: RE: Queensbury Tunnel latest

No problem Rich, just wanted to flag to take a view on whether there’s anything new/different we wanted to say, as I know the picture changes quite a lot. I will dig out the most recent response we’ve provided on this and circulate for feedback.

Chris

From: Marshall, Richard
Sent: 06 November 2019 12:15
To: Lynham, Chris ; Hart, Jennifer
; Parker, Dave **Cc:** Maunders, Michaela ; Glavina, Claire

; Moore, Kathryn

Subject: RE: Queensbury Tunnel latest

I think we already have lines on this don't we? They've been used several times already ….

From: Lynham, Chris
Sent: 06 November 2019 12:13
To: Hart, Jennifer ; Parker, Dave ; Marshall, Richard
Cc: Maunders, Michaela ; Glavina, Claire
; Moore, Kathryn
Subject: RE: Queensbury Tunnel latest

Hi all,

DfT have requested that we lead on this one. I thought it was worth asking the question given the legalities element of the journalist's question.

Obviously we're restricted in what we can say now we are officially in Purdah, so any response would have to be guided by that.

Dave, Rich, happy to catch up either before I set off at 12.40 or I can try you when I'm back.

Thanks,

Chris

From: Lynham, Chris
Sent: 06 November 2019 12:06
To: Hart, Jennifer ; Parker, Dave ; Marshall, Richard
Cc: Maunders, Michaela ; Glavina, Claire
; Moore, Kathryn
Subject: FW: Queensbury Tunnel latest

Hi all,

Please see below media query about Queensbury Tunnel. I have shared with our colleagues in the DfT press office and asked Louise Dean if they are still leading on it. Assuming so with this one as he specifically references the emergency powers so we're back into legalities again.

I'll keep you posted. Copying in Kathryn as I have an appointment from 1pm – 2.30pm.

Thanks,

Chris

From: Tim Quantrill
Sent: 06 November 2019 11:53
To: Lynham, Chris **Subject:** Queensbury Tunnel latest

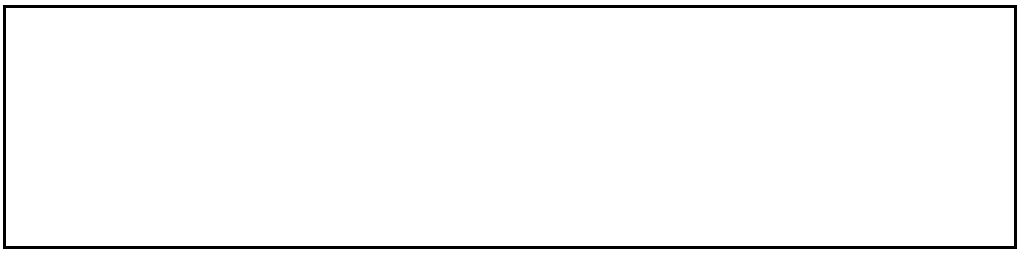
Hi Chris, my colleague Felicity has passed on your contact details.

I'm following up on the latest comment from the Queensbury Tunnel Society Facebook page saying Highways England had been planning to do the infilling works to the No2 shaft for several weeks despite the fact that there had been no "meaningful change in the condition of these defects since 2016" in their words.
https://www.facebook.com/queensburytunnel/?ref=search&__tn__=%2Cd%2CP-R&eid=ARCpY02hl5jHDEHOLdYVgoZ_n4dTZW0LFcgKVL-Q8u6N5WqpxMH3re402YT0FTcBPzUMQZU9I7rqG1Fi
What is HE's response to this, would you say the shaft's condition deteriorated significantly.
And what does HE say about the allegation that AMCO-Giffen had not inspected the shaft and therefore infilling of the shaft under emergency powers was unjustified?
Can you provide a comment for a story I'm writing by 5pm today please?
Thanks,

Tim Quantrill | Chief Reporter

_____

Newsquest Media Group Ltd
Hall Ings, Bradford, West Yorkshire, BD1 1JR
t:



Parker, Dave

From: Parker, Dave
Sent: 21 October 2019 14:56
To: Dave Thomas; Smith, Fiona
Cc: Wilson, James - York; Katsouli, Despoina
Subject: RE: Queensbury Tunnel Shaft 2

Thanks Dave

Well done to all of the team for getting this operational so quickly.

Kind Regards

Dave Parker
Historical Railways Estate (on behalf of Department for Transport)
Highways England | 37 Tanner Row | York | Y01 6WP
General Office: +44 (0) 1904 621924
Mobile: + 44 (0) 7714 431547
Web: http://www.highwaysengland.co.uk

From: Dave Thomas
Sent: 21 October 2019 14:21
To: Parker, Dave ; Smith, Fiona
Cc: Wilson, James - York ; Katsouli, Despoina
Subject: Queensbury Tunnel Shaft 2

Dave/Fiona,

The works to infill Shaft 2 have started already.

Regards

Dave Thomas
Regional Manager

AMCO·GIFFEN

Safety | **Professionalism** | **Innovation** | **Respect** | **Integrity** | **Teamwork**

Our Lifesaving Rules

Parker, Dave

From: Parker, Dave
Sent: 28 October 2019 12:56
To: James Wilson
Cc: Smith, Fiona
Subject: Queensbury Tunnel Shaft Two - Emergency Works Complete

Importance: High

Jim

Good news from site this morning. The shaft is stabilised and the risk effectively mitigated. I now need to write to colleagues at the Council engineering team to provide technical details of how we went about things.

Could you please let me have any photos reflecting completion and remediation of the site as well as the amount and type of fill used so that we can provide the Council with these details as required under the relevant planning legislation?

Kind Regards

Dave Parker
Historical Railways Estate (on behalf of Department for Transport)
Highways England | 37 Tanner Row | York | Y01 6WP
General Office: +44 (0) 1904 621924
Mobile:
Web: http://www.highwaysengland.co.uk

Parker, Dave

From: Parker, Dave
Sent: 21 October 2019 12:14
To: James Wilson ; Smith, Fiona; Nigel Robson ; Katsouli, Despoina
Subject: FW: Emergency safety work at Queensbury Tunnel

Importance: High

Colleagues

For information.

Kind Regards

Dave Parker
Historical Railways Estate (on behalf of Department for Transport)
Highways England | 37 Tanner Row | York | Y01 6WP
General Office: +44 (0) 1904 621924
Mobile: + 44 (0)
Web: http://www.highwaysengland.co.uk

From: Lynham, Chris
Sent: 21 October 2019 12:07
To: Parker, Dave ; Marshall, Richard
Cc: Andy Holdsworth ; Marshall, Richard ; Khasru Ali ; Sam Buckmaster ; Archie Maitland ; Harriet Ingram ; Hywel Barrett ; Alice MacFarlan ; Mark Mathews
Subject: FW: Emergency safety work at Queensbury Tunnel
Importance: High

Hi all,

For info, this news release has just been issued.

Kind regards,

Chris

Chris Lynham
Media Relations Manager (Yorkshire and the North East)
Highways England | Lateral | 8 City Walk | Leeds | LS11 9AT
Tel: +44 (0) 300 4702637 | **Mobile**: + 44 (0) 7540 705142
Web: www.highwaysengland.co.uk
GTN: 0300 470 5679

21 October 2019

Emergency safety work at Queensbury Tunnel

Emergency planning powers have been brought in to ensure urgent safety work can be carried out at Queensbury Tunnel in West Yorkshire.

Tunnel owners, the Department for Transport, are using the powers for work to infill one of the air shafts because of the increasingly deteriorating condition of a section of the structure and fears it could collapse.

The work will be delivered by Highways England who manage the tunnel on the department's behalf.

Highways England Yorkshire and North East Regional Director, Richard Marshall said:

"Today's emergency measures to stabilise one of the air shafts in the tunnel follows an influx of water over the last weekend of September. The volume of water entering the tunnel from the southern opening not only endangered the safety of our workforce but also caused the first phase of our safety work to be halted.

"We had been clear that the first phase of the safety work wouldn't prevent the tunnel's future reopening. However, the infilling of the shaft in this manner means that any reopening is now going to be more challenging.

"We are aware that this news will be a disappointment to those seeking the reopening of the tunnel, however we have no option other than to complete this work immediately to ensure both the safety of those communities living close by and the workforce who need to maintain it."

Queensbury Tunnel was constructed in the 1870s as part of the railway from Halifax to Keighley, and the line closed in the 1950s. In 2013 ownership of the Historical Railway Estate (HRE) was transferred to the Secretary of State for Transport from the former British Railways Board (Residuary) Ltd which was abolished that year. The Highways Agency inherited maintenance responsibility and associated liabilities for the HRE at this time as it was seen as having the necessary expertise. Responsibility for maintaining the HRE then transferred to Highways England in 2015.

For the first time in more than two years contractors took the opportunity to carry out a close inspection of the base of shaft two at the end of last month, at which point water began to enter the tunnel at an unprecedented volume and speed. They had to abandon equipment and move to a safe area and, within 48 hours, water levels were close to the highest ever recorded.

Engineers determined the affected area, which is close to an access road used by people accessing nearby properties, needed immediate attention.

Water levels in the southern section of the tunnel means further inspections of the base and planned strengthening work can't be carried out.

The emergency work involves infilling the shaft from above with natural material. This will stabilise the shaft, reducing the risk of collapse.

Before having to stop work, Highways England contractors were close to completing the first phase of safety work, with water levels close to their lowest since October 2018. This was providing partial and short-term strengthening to the most vulnerable sections of the tunnel.

The emergency work is expected to take around two weeks, after which Highways England can determine next steps for resuming the safety work that was halted.

Ends

NOTES TO EDITORS

Highways England is the government-owned company responsible for modernising, maintaining and operating England's motorways and major A roads.

Real-time traffic information for England's motorways and major A roads is available via its website (www.trafficengland.com), local and national radio travel bulletins, electronic road signs and mobile apps. Local Twitter services are also available at https://highwaysengland.co.uk/highways-england-about-us.

For further information please contact Highways England's press office (24hrs) on 0844 693 1448 and select the most appropriate option below:

Option 1: **National enquiries** (9am to 5.30pm) & **out of hours for urgent enquiries**
Option 2: **North West** (between 9am & 5.30pm)
Option 3: **Yorkshire, Humber and North East** (between 9am & 5.30pm)
Option 4: **West Midland** (between 9am & 5.30pm)
Option 5: **East Midlands** (between 9am & 5.30pm)
Option 6: **East** (between 9am & 5.30pm)
Option 7: **South East** (between 9am & 5.30pm)
Option 8: **South West** (between 9am & 5.30pm)

Registered office Bridge House, 1 Walnut Tree Close, Guildford GU1 4LZ
Highways England Company Limited registered in England and Wales number 09346363

Parker, Dave

From: Parker, Dave
Sent: 28 October 2019 12:42
To: Marshall, Richard; Harris, Nick; O'Sullivan, Jim; Reardon, Tim
Subject: Queensbury Tunnel Shaft Two - Emergency Works Completed - For Information

Colleagues

By way of information, our contractors have completed the infilling of shaft two just before 11am today. A significant achievement given that they only secured the site last Monday morning. The shaft is now stabilised and secure.

My team will work with the press team to let the media know.

Kind Regards

Dave Parker
Historical Railways Estate (on behalf of Department for Transport)
Highways England | 37 Tanner Row | York | Y01 6WP
General Office: +44 (0) 1904 621924
Mobile: + 44 (0)
Web: http://www.highwaysengland.co.uk

Parker, Dave

From: Irwin, Matthew
Sent: 07 November 2019 12:25
To: Parker, Dave
Subject: Queensbury GDPR

Hi Dave

Just spotted that one of the posts on the Queensbury site has published your name and contact details – I think that goes against the GDPR.

Kind regards

Matt

Matthew Irwin, Civil Engineer
Historical Railways Estate (on behalf of Department for Transport)
Highways England | 37 Tanner Row | York | North Yorkshire | YO1 6WP
General Office: +44 (0) 1904 621924
Mobile: +
Web: http://www.highwaysengland.co.uk
If you would like to make a request under the Freedom of information Act, please contact info@highwaysengland.co.uk

Parker, Dave

From: Lynham, Chris
Sent: 29 October 2019 09:54
To: Manning, Jane; Parker, Dave; Marshall, Richard
Cc: Hart, Jennifer; Maunders, Michaela; Glavina, Claire; Thomas, Mark
Subject: Bradford Council leader accuses DfT of breaching planning rules and HE of unauthorised actions

Importance: High

Hi all,

Please see link to a press release published on Bradford Council's website, accusing us of unauthorised action at Queensbury Tunnel and accusing DfT of breaching planning rules:

https://www.bradford.gov.uk/browse-all-news/press-releases/council-leader-asks-secretary-of-state-to-intervene-to-save-queensbury-tunnel/

I've just received a request for comment from Ground Engineering, and I'm sure more will follow. I'd already been preparing a reactive statement on the emergency work being completed a week early.

Jane, could we possibly catch up about this after the call at 10? Dave, I'll give you a call shortly too.

Thanks,

Chris

Chris Lynham
Media Relations Manager (Yorkshire and the North East)
Highways England | Lateral | 8 City Walk | Leeds | LS11 9AT **Tel**: +44 (0) 300 4702637 | **Mobile**: + Web: www.highwaysengland.co.uk
GTN: 0300 470 5679

Parker, Dave

From: Lynham, Chris
Sent: 25 October 2019 10:01
To: Marshall, Richard; Parker, Dave; Maunders, Michaela; Thomas, Mark; Glavina, Claire; Hart, Jennifer; Moore, Kathryn; Smith, Fiona
Subject: Queensbury Tunnel media evaluation
Attachments: Queensbury Tunnel

Hi all,

Please see below round-up of this week's coverage of the emergency work at Queensbury Tunnel.

As you know, on Tuesday regional director Rich Marshall was also interviewed by ITV Yorkshire, BBC Look North and BBC Radio Leeds. The Look North coverage was disappointing, as we feel it wasn't as balanced as we would've liked. However, the print coverage did contain our key messages and was delivered in a more balanced fashion.

In terms of next steps, in order to keep our voice out there and continue to put across our key messages, we are planning to draft a news release about how the work is progressing, as well as a further release upon completion of the work. We will also utilise photos and video footage. Drafts will of course be circulated in the usual manner for collaboration purposes, prior to sign off.

Today (Friday) we have also been approached by Bradford Telegraph & Argus for a comment on the society's latest press release (**please see attached**), in which they accuse us of unlawful behaviour and vandalism. As I write this we are in the process of discussing next steps for that.

Emergency work on tunnel after fears it could collapse
Halifax Evening Courier, 24/10/2019, p.5, Unattributed
Emergency Planning powers have been brought in for urgent safety work to be carried out at Queensbury Tunnel. The work will be delivered by Highways England which manages the Victorian former rail tunnel. Highways England Yorkshire and North East Regional Director, Richard Marshall said: "Emergency measures to stabilise one of the air shafts in the tunnel follows an influx of water over the last weekend of September."
Keyword : Highways England
Article

Highways England had to evoke emergency powers to start urgent work
ITV 1 Yorkshire West, ITV News Calendar, 23/10/2019, 22:40:01, 5:0
Keyword : Highways England Broadcast
View clip

Highways England addresses work to fill in part of Queensbury Tunnel
ITV 1 Yorkshire West, ITV News Calendar, 23/10/2019, 13:56:33, 5:0
Keyword : Highways England Broadcast
View clip

Queensbury Tunnel: Emergency work 'could end cycle scheme'

https://www.bbc.co.uk/news/uk-england-leeds-50139370

Campaign to reopen tunnel goes on despite emergency work
Telegraph & Argus (Web), 23/10/2019, Unattributed
Emergency measures have been introduced to stabilise an air shaft at a historic tunnel. The work has thrown into doubt the reopening of the structure, with Highways England – which is responsible for managing the tunnel – admitting the safety procedures will make it "more challenging" to bring it back into use.
Keyword : Highways England
Article | Link

Rich Marshall from Highways England says flooding has seriously damaged the Queensbury Tunnel
BBC Radio Leeds, West Yorkshire Sport, 22/10/2019, 19:02:05, 5:0
Keyword : Highways England Broadcast
View clip

Rich Marshall from Highways England says flooding has seriously damaged the Queensbury Tunnel
BBC Radio Humberside, Humberside Sport, 22/10/2019, 19:01:32, 5:0
Keyword : Highways England Broadcast
View clip

Highways England carrying out safety work at Queensbury Tunnel
BBC Radio Leeds, Gayle Lofthouse, 22/10/2019, 17:35:55, 5:0
Keyword : Highways England Broadcast
View clip

Rich Marshall from Highways England says flooding has seriously damaged the Queensbury Tunnel
BBC Radio Sheffield, Football Heaven, 22/10/2019, 19:01:54, 5:0
Keyword : Highways England Broadcast
View clip

Highways England effectively working on Queensbury Tunnel
BBC 1 Yorks, Look North; Weather, 22/10/2019, 18:37:26, 5:0
Keyword : Highways England Broadcast
View clip

No Easy Answers To Tunnel Problem
Telegraph and Argus (Bradford), 22/10/2019, p.10, Graeme Bickerdike
Spending millions of pounds reopening Queensbury Tunnel for cyclists would be madness when core public services really need that investment. The alternative is abandonment - proposed by Highways England, the body responsible for managing the tunnel. As everyone knows, this would involve filling it with concrete. Except it wouldn't.
Keyword : Highways England
Article

Emergency powers for safety work
Telegraph and Argus (Bradford), 22/10/2019, p.5, Alex Ross
Emergency planning powers will be brought in at Queensbury Tunnel to make sure urgent safety work can go ahead. The work has thrown the re-opening of the tunnel into further doubt, with Highways England admitting the safety procedures will make it "more challenging" to bring it back into use. Richard Marshall, Yorkshire and North East regional director for Highways England, said: "Today's emergency measures to stabilise one of the air shafts in the tunnel follows an influx of water over the last weekend of September."
Keyword : Highways England
Article

Don't abandon this wonderful piece of engineering to the flood waters
Telegraph & Argus (Web), 22/10/2019, Unattributed
Spending millions of pounds reopening Queensbury Tunnel for cyclists would be madness when core public services really need that investment. The alternative is abandonment - proposed by Highways England, the body responsible for managing the tunnel. As everyone knows, this would involve filling it with concrete. Except it wouldn't.
Keyword : Highways England
Article | Link

Fears over Queensbury tunnel collapse as Highways England start emergency repairs
Halifax Evening Courier (Web) , 21/10/2019, Unattributed
Emergency planning powers have been brought in to ensure urgent safety work can be carried out at Queensbury Tunne Tunnel owners, the Department for Transport, are using the powers for work to infill one of the air shafts because of the increasingly deteriorating condition of a section of the structure and fears it could collapse. The work will be delivered by Highways England who manage the tunnel on the department's behalf.
Keyword : Highways England
Article | Link

Emergency Safety Work At Queensbury Tunnel
The Yorkshire Times (Web), 21/10/2019, Unattributed
Emergency planning powers have been brought in to ensure urgent safety work can be carried out at Queensbury Tunnel in West Yorkshire. The work will be delivered by Highways England who manage the tunnel on the department's behalf. Highways England Yorkshire and North East Regional Director, Richard Marshall said: "Today's emergency measures to stabilise one of the air shafts in the tunnel follows an influx of water over the last weekend of September."
Keyword : Highways England
Article | Link

Any questions, please let me know.

Thanks,

Chris

Chris Lynham
Media Relations Manager (Yorkshire and the North East)
Highways England | Lateral | 8 City Walk | Leeds | LS11 9AT **Tel**: +44 (0) 300 4702637 | **Mobile**: + 44 (0) Web: www.highwaysengland.co.uk
GTN: 0300 470 5679

Chris Lynham
Media Relations Manager (Yorkshire and the North East)
Highways England | Lateral | 8 City Walk | Leeds | LS11 9AT **Tel**: +44 (0) 300 4702637 | **Mobile**: + 44 (0) Web: www.highwaysengland.co.uk
GTN: 0300 470 5679

Parker, Dave

From: Nigel.Robson 22 October
Sent: 2019 19:07
To: Parker, Dave
Subject: Video of Culvert 12-06-19

Jacobs File Transfer System

Nigel.Robson@jacobs.com has sent you a file archive, with the following message:

Dave,

Video of Culvert 12-06-19
Jim can provide a sketch showing the location for context if required.

Regards

Nigel

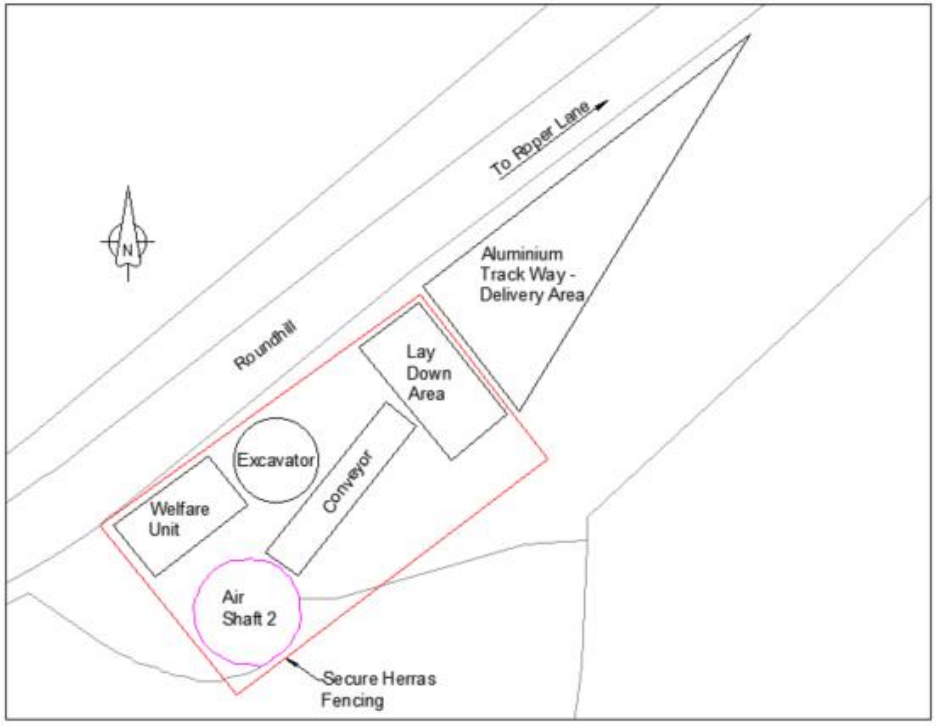
If you trust Nigel.Robson@jacobs.com, use the URL below to pick up the file archive (you may need to copy and paste it into your browser):

Download URL: https://jftt.jacobs.com/download.aspx?ID=05c40a85-d7e8-4f83-a4ba-8bb595252a4e&RID=e794fa7b-e046-469c-9881-b34dbc65fc1b
Download size: 439,627 KB
Download contents: video_strines beck_12.06.2019.mp4
Distribution:
To:Dave.Parker Cc:James.C.Wilson

You have 15 days to pick up this file archive; after 15 day(s) (Midnight 11/6/2019), it will be deleted. This is an automated e-mail. Thank you for using the Jacobs File Transfer System.

SHAFT 2 LOCATION

OS Ref	SE 089 295
OS X (Eastings)	408996
OS Y (Northings)	429515
Nearest Post Code	BD13 2DQ




INVADER
COVEYA.CO.UK