

Report to TRO Panel

Decision Maker: Director of Environment, Nasir Dad

Date of Decision: 28 September 2023

Subject: Definitive Map and Statement Modification Order

S119 Highways Act 1990 – (Part) Diversion of Footpath 152 Oldham, at Oldham Way, Oldham and s53A Wildlife and Countryside Act 1981 Modification of the Definitive Map and Statement.

Report Author: Liam Kennedy, PRoW Officer

Ward: St Mary's

Reason for the decision: The Council requires the diversion of Footpath 152 Oldham (part) which currently passes over the now removed Oldham Way Footbridge.

Summary: The application has been considered in the light of the required removal of the Footbridge due to vehicular strikes. It is considered that, in the interests of footpath users, the footpath should be diverted and that Officers be given delegated authority to carry out the necessary procedures with a view to confirming the Public Path Diversion and Definitive Map and Statement Modification Order in the event that no objections to the order are received.

Background: The request for diversion is a result of the removal of the Oldham Way Footbridge due to numerous vehicular strikes and substandard headroom making the structure vulnerable to further impact.

The Order-making and Confirming Authority are guided to weigh the interests of the landowner against the overall impact of the proposal on the public as a whole, noting that reducing or eliminating the impact of the current route of the right of way on the landowner, in terms of

privacy, security and safety, are important considerations to which due weight should be given. In these limited circumstances only, the Order-making Authority should, therefore, be predisposed to make the Order provided it satisfies the relevant test for the making of the Order set out in the legislation, namely that in the interests of the landowner, it is expedient that the line of the right of way should be diverted.

The principal test before deciding whether to confirm a Public Path Diversion and Definitive Map and Statement Modification Order is that the diversion should not be substantially less convenient to the public in consequence of the diversion and that it is expedient to confirm the Order.

Proposal:

The existing route of Footpath 152 Oldham is shown on the attached plan (764/A4/238/1). Footpath 152 commences at (GR SD93198 04732) proceeding in a north-westerly direction across the 'red tin' footbridge for a distance of approximately 124m to point A (GR SD93120 04732) then north east for a distance of approximately 39m up the pedestrian ramp to the (now removed) 'Oldham Way' footbridge to point B (GR SD93153 04849). Crossing Oldham Way via the footbridge in a generally northerly direction for a distance of approximately 38m to point C (GR SD93133 04881) to then turn and proceed down the pedestrian ramp in a south westerly direction for a distance of approximately 65m to terminate on Gas Street at point D (GR SD93079 04846). The description of the current route is given in Schedule 1.

The diverted path is also shown on the plan (764/A4/238/1) and follows points A-E-F. The description of the diverted route is given in Schedule 2.

The applicant proposes a diversion via the downhill ramp to join the adopted Footway on the southern side of Oldham Way negating the need to cross via the (now removed) footbridge spanning Oldham Way.

If the order is confirmed it will be necessary to modify the Definitive Map and Statement for Footpath 152 Oldham. The Council have an

obligation to continuously review the Map and Statement. The Public Rights of Way (Combined Orders) (England) Regulations 2008 allow the Order-making Authority to make a Combined Order for a diversion proposal and Definitive Map and Statement Modification. In light of the above it is considered that this is appropriate in this case. The current wording for the Definitive Statement is given in Schedule 3 and the amended wording is given in Schedule 4.

What are the alternative option(s) to be considered? Please give the reason(s) for recommendation(s):

Option 1: To approve the recommendation
Option 2: Not to approve the recommendation.

Option 1 is recommended as otherwise the Oldham Way Footbridge will have to be reinstated.

Consultation: including any conflict of interest declared by relevant Cabinet Member consulted

The Ward Members have been consulted and no comments have been received.

Footpath Societies have been consulted and;

- The Wednesday Walkers have no comment on this proposal.
- The Ramblers Association have no objection to this proposal.
- The Peak & Northern Footpath Society have no objection to this proposal.

Recommendation(s):

It is recommended that the Council make a Public Path Diversion & Definitive Map and Statement Modification Order for the (part) diversion of Footpath 152 Oldham under Section 119 of the Highways Act 1980 and Section 53A of the Wildlife and Countryside Act 1981 as detailed in the report and officers be authorised to carry out the necessary procedures with a view to confirming the Order in the event that no objections are made to the Order.

Implications:

What are the **financial** implications?

The cost of introducing the order is shown below:

	£
Advertisement of Order	1,400

The advertising expenditure of £1,400 will be funded from the 2023/24 Highways TRO budget.

(John Edisbury)

What are the **legal** implications?

Under Section 119 of the Highways Act 1980 the Council may make a public path diversion order where it appears to it to be expedient, either in the interests of the owner, lessee or occupier of land crossed by the path, or in the interests of the public, that it should be diverted. The confirming body for the order must also be satisfied that the diversion is expedient in the interests of the owner, lessee or occupier of land crossed by the path or in the interests of the public and that the path will not be substantially less convenient to the public as a consequence of the order. The confirming body must also be satisfied that it is expedient to confirm the order having particular regard to the effect on public enjoyment of the path as a whole, the effect on other land served by the existing path and the effect of the new diversion on the land and other land held with it, to be crossed by the diversion.

In the event of objections to the order, the order will be sent to the Secretary of State for determination. If no objections are received it is recommended that officers be given delegated authority to determine whether it is expedient to confirm the order, as otherwise this decision would have to be taken at a future meeting of the TRO Panel, adding unnecessary delay to the process. (A Evans)

What are the **Procurement** implications?

None

What are the **Human Resources** implications?

None

Equality and Diversity Impact Assessment attached or not required because (please give reason)

Not applicable.

What are the **property** implications

None

Risks:

None

Co-operative agenda

The diversion of Footpath 152 Oldham aligns to the Council's Co-operative agenda. The diversion will keep pedestrians and motorists safe and healthy which is a key Corporate priority (Mahmuda Khanom, Policy Support Officer)

Has the relevant Legal Officer confirmed that the recommendations within this report are lawful and comply with the Council's Constitution? Yes

Has the relevant Finance Officer confirmed that any expenditure referred to within this report is consistent with the Council's budget? Yes

Are any of the recommendations within this report contrary to the Policy Framework of the Council? No

Schedule 1 – Description of Existing Footpath Route – Drawing 764/A4/238/1

Existing Footpath 152 Oldham commences at (GR SD93198 04732) proceeding in a north-westerly direction across the 'red tin' footbridge for a distance of approximately 124m to point A (GR SD93120 04732) then north east for a distance of approximately 39m up the pedestrian ramp to the (now removed) 'Oldham Way' footbridge to point B (GR SD93153 04849). Crossing Oldham Way via the footbridge in a generally northerly direction for a distance of approximately 38m to point C (GR SD93133 04881) to then turn and proceed down the pedestrian ramp in a south westerly direction for a distance of approximately 65m to terminate on Gas Street at point D (GR SD93079 04846).

Schedule 2 – Description of Proposed (Part) diverted Route – Drawing 764/A4/238/1

From point A (GR SD93120 04732) heading northwest for a distance of approx. 2m to point E (GR SD93119 04830). Then proceeding northeast for a distance of approx. 28m down the ramp to terminate at point F (GR SD93143 04845) on the adopted footway on the southern side of Oldham Way.

Schedule 3 – Current Definitive Statement

District and page number	Page Number	Status	Length (m)	Description	Comments
OLDHAM 10	10	F.P	171	This is a British Rail footbridge from Churchill Street to Gas Street	

**Schedule 4 – Modification of
Definitive Statement**

District and page number	Page Number	Status	Length (m)	Description	Comments
OLDHAM 10	10	F.P	154	Footpath 152 Oldham commences at (GR SD93198 04732) proceeding in a north-westerly direction across the 'red tin' footbridge for a distance of approximately 126m to (GR SD93119 04830) Then proceeding northeast for a distance of approx. 28m down the ramp to terminate at (GR SD93143 04845) on the adopted footway on the southern side of Oldham Way.	1 Footbridge

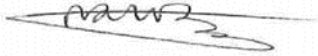
There are no background papers for this report

Report Author Sign-off:	
Liam Kennedy	
Date: 11 September 2023	

Please list and attach any appendices:-

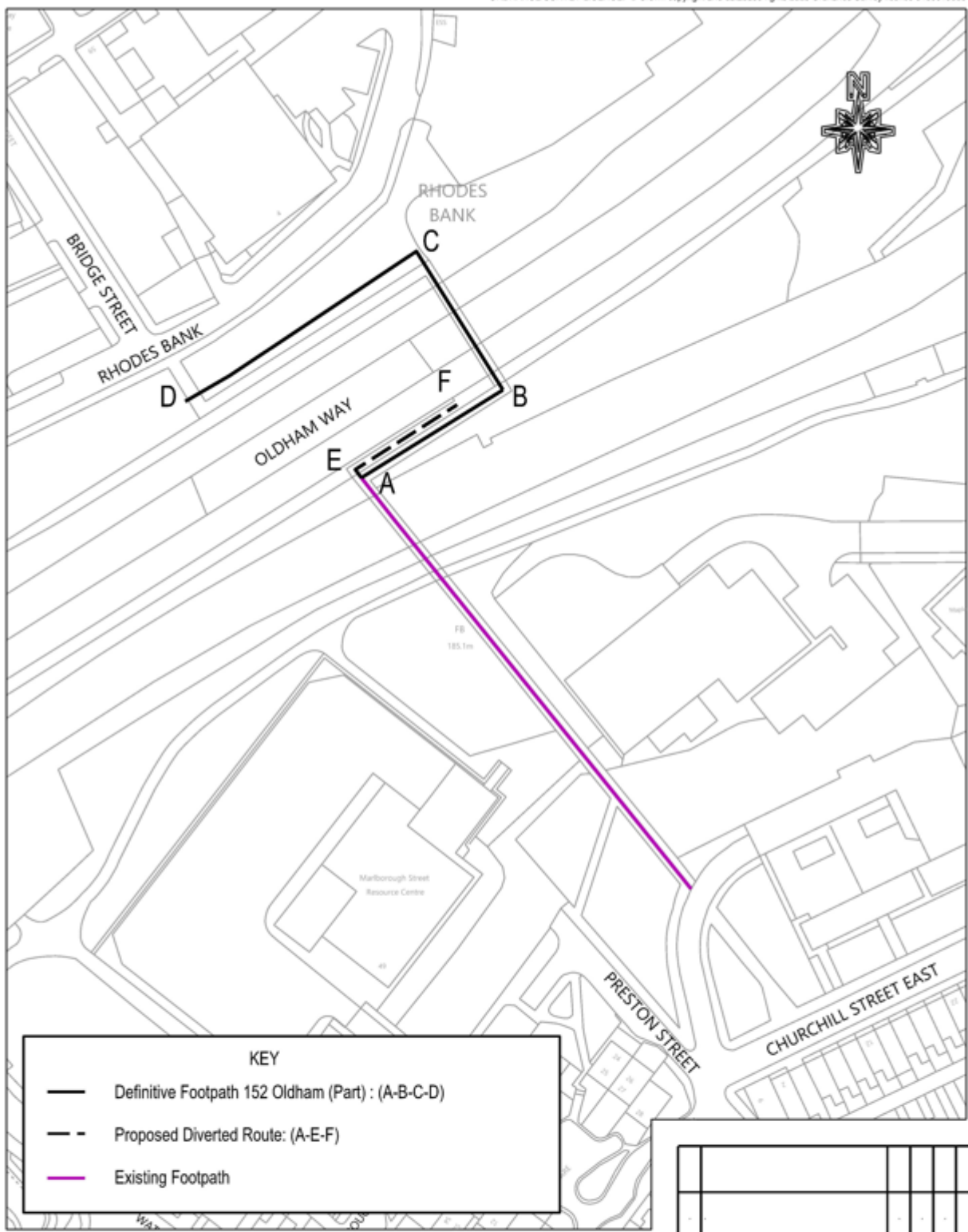
Appendix number or letter	Description
A	Briefing Note

In consultation with Director of Environment



Signed :

Date: 15.09.2023



KEY	
	Definitive Footpath 152 Oldham (Part) : (A-B-C-D)
	Proposed Diverted Route: (A-E-F)
	Existing Footpath

Rev	Revision details	By	CHK	App	Date



Oldham Council

**Place and Economic Growth
HIGHWAYS & ENGINEERING**
Henshaw House, Cheapside, Oldham OL1 1NY

Client Oldham MBC	
Project Oldham Way, Former Footbridge, Oldham	
Drawn by RW	Date 07/23
Checked by LK	Date 07/23
Approved by	Date
Purpose of issue information Scale at A4 size 1:1250	

Title Diversion of Public Highway Combined Order s119 Highways Act 1980 Diversion of Public Footpath 152 Oldham (part) and Wildlife and Countryside Act 1981 S53(2) Modification of the Definitive Map and Statement	
Drawing No. 764/A4/238/1	Rev. .

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APPENDIX A
BRIEFING NOTE

Briefing Note

Oldham Way Footbridge impact damage – Remedial Works

1 Background

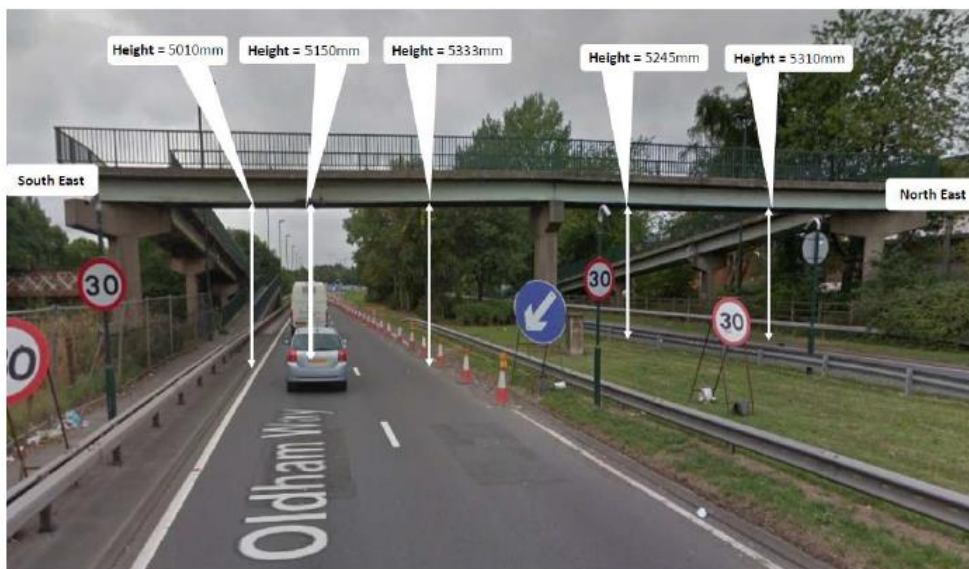
This briefing note has been prepared to outline and review the options and implications associated with the required remedial works to Oldham Way Footbridge, following the most recent impact damage.



2 Background

On 26 March 2020 the deck of Oldham Way Footbridge was impacted by objects protruding from a lorry travelling westbound on Oldham Way Bypass A62 in lane 1. Details of the vehicle were obtained by OMBC Highway Operatives.

Oldham Way Footbridge has low headroom. Records show the deck has received impact damage on at least 2 other occasions, once in 2001 and once in 2013. It is suspected that the bridge has been impacted on several other occasions, but unreported. The current minimum headroom above the carriageway is approximately 5.01m. The headroom requirement for all existing footbridges and other relatively lightweight structures vulnerable to vehicular impact is 5.41m, meaning a shortfall at Oldham Way Footbridge of approximately 400mm (see below).



Type of structure	New Construction Headroom (m)	Maintained Headroom (m)
Overbridges	5.30 + S	5.03 + S
Footbridges, Sign/Signal Gantries and other structures vulnerable to vehicular impact	5.7 + S	5.41 + S
Free Standing Temporary Structures	N/A	5.41 ¹ + S
All Permanent Structures over High Load Routes ²	6.45 + S	6.18 ¹ + S

Where S = Sag Curve Compensation in accordance with Table 6-2

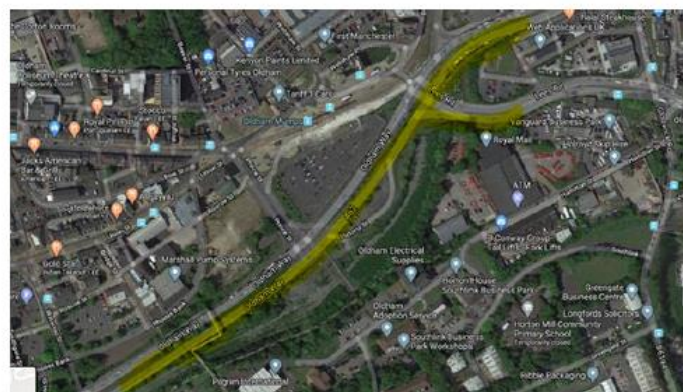
Table 6-1: Standard Headroom at Structures

Since the recent strike the bridge has been inspected and assessed with regards to carrying capacity in current condition. The assessment indicates that the bridge deck has the capacity to support its self-weight, however if loaded heavily by a vast number of pedestrians this could potentially lead to failure.

3 Temporary Measures

The bridge has been subsequently closed to pedestrians under an emergency Temporary Traffic Regulation Order and shall remain closed until it is either appropriately repaired or replaced. See Appendix A - temporary diversion route for users of the crossing.

To mitigate the bridge being impacted further in the short-term, traffic management in the form of a lane 1 closure of the westbound carriageway is currently being procured. This will block and prohibit vehicular movement below the lowest area of the bridge, where previously impacted (see below). See estimated cost breakdown for the interim traffic management in the costings section of this briefing note, for installation and the maintaining of this traffic management.



A temporary measure of raising the deck above the carriageway in the short term has been explored with an enquiry made to a specialist contractor, for a budgetary estimate and availability particularly amid COVID-19 restrictions. For the estimate 2 options were considered. Option 1 being the slight raising of the deck from the south pier to achieve a minimum headroom of at least 5.03m throughout, this is substandard for a footbridge, but meets the requirement for road bridges and reduces the risk of further impact. Option 2 being the raising of the entire deck above the carriageway to achieve the 5.41m requirement for footbridges. The provided budgetary estimates for option 1 and option 2 are £25,000 and £55,000 respectively. These costs do not allow for the appropriate welfare facilities, traffic management and the hire of equipment whilst the bridge is temporarily supported. See photographs below of provided case study of a similar structure requiring raising. See Appendix B for the provided budgetary estimates and breakdown for temporary raising of the deck.



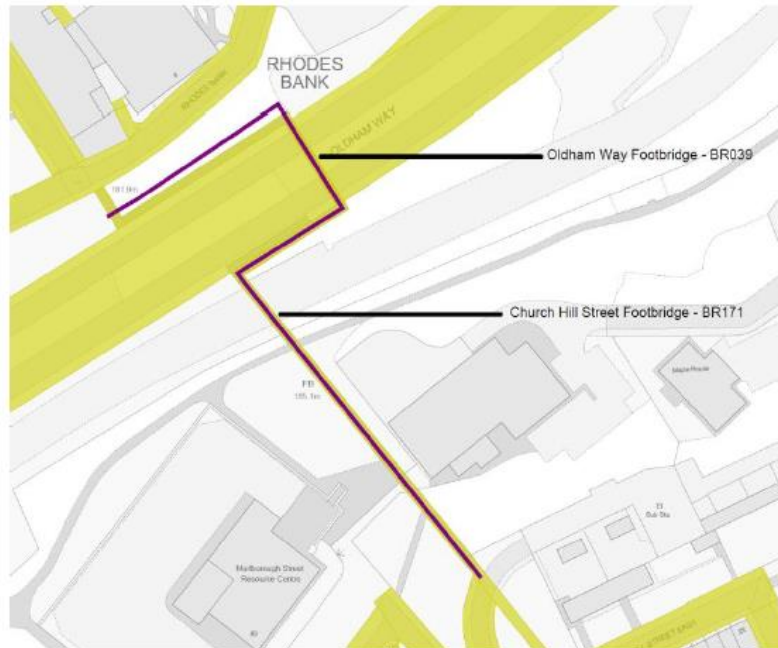
4 Bridge Removal

A budgetary estimate was also obtained for the removal of the 2 spans above the carriageway. For this estimate 2 options were also considered. Option 1 allows for significant enabling works in jacking and freeing the deck spans from the pier supports before crane lifting. Option 2 assumes that the deck will become free from the pier supports simply by burning off the holding down bolts, which the historic drawings do indicate as viable. With option 2 there is a risk that when the crane is supporting the deck it may be found that the deck is restrained also by other means, which could require significant works to breakout and release. This could result in an abortive crane lift, traffic management etc. The provided budgetary estimates for removal option 1 and option 2 are £85,000 and £55,000 respectively. These costs do not allow for the appropriate welfare facilities, traffic management and safeguarding works by installing additional barriers following the removal. See Appendix C for the provided budgetary estimates and breakdown for removal and disposal of the 2 spans above the carriageway.

Due to the closure of the Mumps station, it has been noted for numerous years that the bridge should be considered for permanent removal. An option may be for the bridge to be permanently removed and the Definitive Footpath 152 (which the structure accommodates) to be diverted. However, for this a separate exercise must be undertaken to determine if there is a public need for the crossing, whether the crossing fits in with the wider strategic development plans of OMBC and the most suitable route of diversion. Permanent diversion to the footpath route requires an extinguishment order in accordance with S118 of the Highways Act 1980. This may be contested and lead to a public inquiry with a minimum cost of £10,000, possibly resulting in the bridge being ordered for replacement.

5 Church Hill Street Footbridge

Definitive Footpath 152 is also accommodated by Church Hill Street Footbridge which is adjacent to Oldham Way Footbridge (see below).



Ownership and maintenance liability of Church Hill Street Footbridge is believed to be with OMBC following the decommissioning of the temporary tram line. This is currently under investigation by OMBC Legal Services and awaiting confirmation. Church Hill Street Footbridge is in significantly poor condition and has recently had a pilaster which was dangerously overhanging the footpath partially demolished, due to safety concerns. It is therefore prudent that Church Hill Street Footbridge also be considered for removal or upgrading and included in the required study / investigation works for Oldham Way Footbridge.





4 Costings

The estimated cost for jacking and propping the deck to meet the standards of the Design Manual for Roads and Bridges is £55,000.00 not including costs for welfare facilities, traffic management and the hire of equipment.

The estimated cost for jacking and propping the deck to the height 5.03m to achieve the headroom requirement of road bridges is £25,000.00 not including costs for welfare facilities, traffic management and the hire of equipment

The estimated cost for the deck to be removed and disposed of allowing for the recommended enabling works is £85,000.00 not including costs for welfare facilities, traffic management and safeguarding works installing additional barriers following the removal.

The estimated cost for the deck to be removed and disposed of assuming a relatively simple crane lift is £55,000.00 not including costs for welfare facilities, traffic management and safeguarding works installing additional barriers following the removal.

Hire costs for the propping equipment is estimated at circa £2,000 per week following the first 2 weeks.

Welfare costs are estimated at £300 per day.

Costs of the interim traffic management measure of closing lane 1 of the westbound carriageway (installation and maintenance):

- £4,200 for 1 month
- £10,800 for 3 months
- £43,600 for 12 months

Costs for the traffic management required for raising or removing the deck spans is estimated to be circa £20,000.

Costs to upgrade the current barriers to the bridge following removal of the 2 spans is estimated to be £2,000.

Oldham Unity fees are estimated to be £7,500. Fee proposal and Brief response to follow, upon agreement of proposed scope of works.

5 Risks

It is evident that the bridge has been impacted sporadically over past years. It is also noted that with a headroom of over 5m it is unlikely to be impacted by a vehicle, and if impacted it is more likely to be by objects protruding from a vehicle. Considering the weakened state of the damaged deck beam, further impact could result in an instant collapse, and owes to the type of object that it is struck by.

The temporary jacking and propping of the deck would reduce the risk of further impact. However, this will not enable the bridge to be opened to pedestrian usage any sooner, as it does not include for structural repair works and causes a difference in surface level between the approach ramps and the main bridge deck.

Attempting to remove the deck without prior enabling works to release (Bridge removal option 2) carries increased risk. From record drawings it appears the deck is held down in place with bolts that can be broken or removed to free the spans ready for lifting. However, there is a reasonable possibility that there are other hidden elements restraining the deck spans that will need significant work to release. This may result in an abortive crane lift, traffic management etc.

5 Recommendation

It is recommended that the bridge be removed at the earliest opportunity. Given the risks with attempting to remove the deck without prior enabling works, it is also recommended that this be undertaken following localised enabling works to free the deck from the supports (bridge removal option 1).

A separate study must be undertaken to determine the public need for the crossing, whether the crossing fits in with the wider strategic development plans of OMBC and the most suitable route of diversion. This will inform a decision to be made with regards to the bridge being replaced, renewed or permanently decommissioned. The remaining elements of the structure (piers, approach ramps, abutments etc) should be considered for potential reuse if it is determined by the study

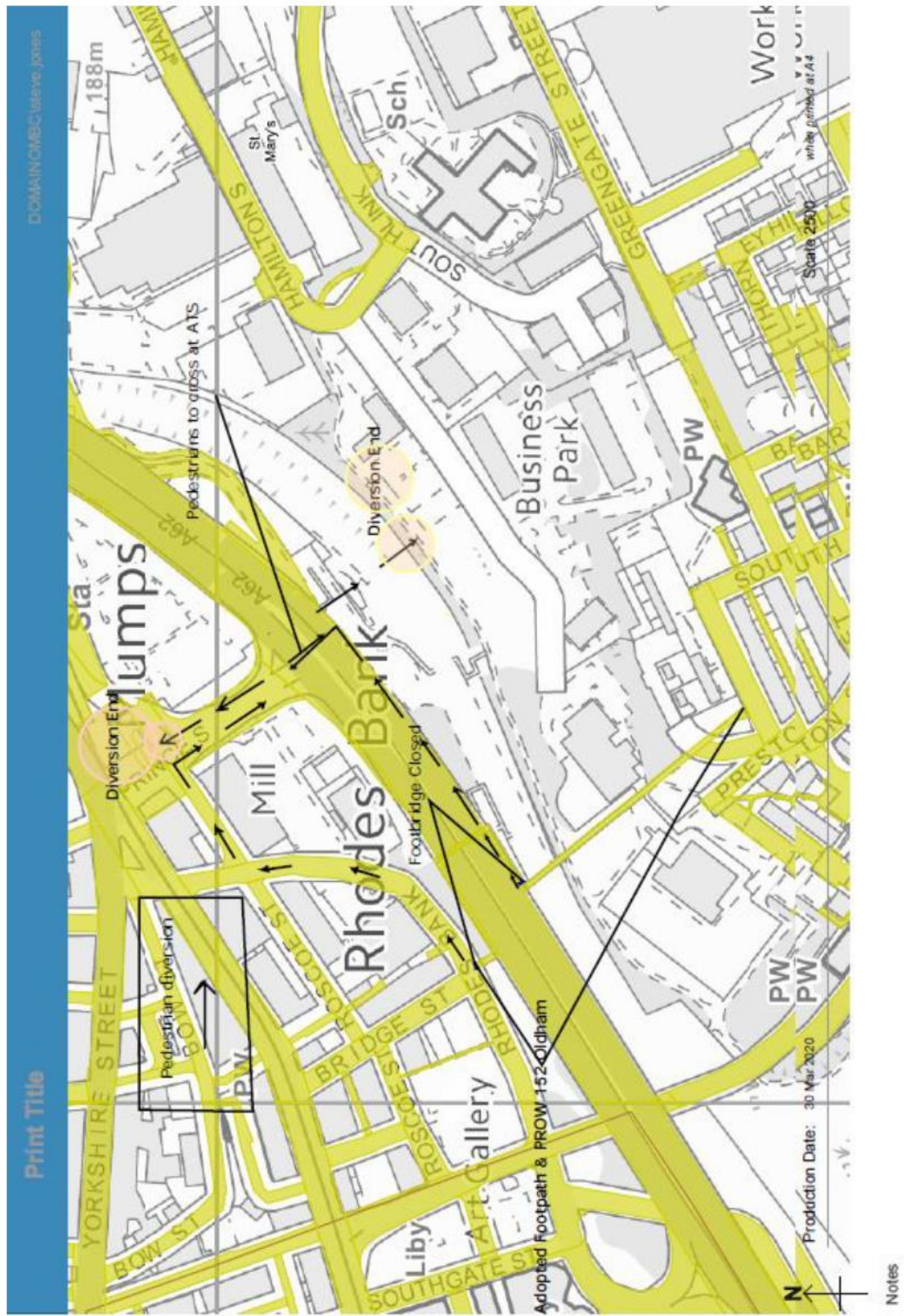
that the bridge must be replaced or renewed. This study will inform the funding requirements of the next phase of works (which is not included in the below Recommended Interim Works Budget Costs).

The ownership of Church Hill Street Footbridge is currently being investigated by OMBC Legal Section. If it is determined that it is an OMBC asset, this will be followed by a Principal Inspection to ascertain the current condition in detail. This structure will need to be considered in the study along with Oldham Way Footbridge to determine the public needs, whether the crossing fits in with the wider strategic development plans of OMBC and the most suitable route for diversion.

Recommended Interim Works Budget Costs – assuming removal within 3 months

Bridge Removal	£85,000
Welfare	£9,000 (6 wks)
TTRO and advertising	£4,081.71
Traffic Management (Westbound Lane 1 closure)	£10,000 (3 mts)
Traffic Management (during bridge removal & enabling)	£20,000
Unity Fees	£7,500
Safeguarding (signage & barriers)	£2,000
Principal Inspection of Church Hill Street Footbridge	£2,000
Feasibility Works (reviewing the need for replacement of Oldham Way Footbridge and Church Hill Street Footbridge)	£10,000
Total Sum	£149,581.71

Appendix A - Temporary diversion route



Appendix B - Budget estimates and breakdown for temp. raising of the deck

Jember Weekes

From: Spencer Goff <Spencer.Goff@ekspan.co.uk>
Sent: 21 April 2020 19:33
To: Jember Weekes
Cc: Sahoo, Ganapati; Gordon Anderson; Nigel Molden; Rezwan Khan; John Senior; Robert Lancaster
Subject: RE: Oldham Way Footbridge - temp. raising
Attachments: Highways England Key Worker Supply Chain Letter @ 25 03 2020.pdf; FW: M1 Tinsley DEMAG joint replacement scheme (EKSPAN); Royal Infirmary Footbridge.pptx; Royal Infirmary Footbridge.pdf; Oldham Footbridge TWD sketch.jpg

Good Afternoon Jember,

Thank you for the email and call yesterday.

I can confirm that Ekspan remain fully operational with our factory still in operation, albeit on split shifts to reduce the number of people working at anyone time but maintaining our production with the upmost consideration of the health and safety of our production operatives.

From a site aspect some of our sites have been closed, but as we work mainly for HE we have been given essential worker status as per the attached document and we have maintained a full site operative workforce to deliver the schemes we currently have. Full FFP3 masks have been issued to each operative to mitigate situations where the 2m distance rule cannot be maintained and have received commendations from Highways England about this, see attached email.

In relation to the bridge works, we undertook the design, bearing manufacture, bridge jacking, bearing replacement, hydrodem, concrete repair, waterproofing and joint replacement on the Royal Infirmary Footbridge, Glasgow for Transport for Scotland in 2019, see attached brief presentation showing the jacking operation, temporary works design, etc.

We are of course keen to assist you with this project and provided the design can be implemented correctly we can be on site to undertake these works once the design is complete. Subject to the design and the equipment required there will be a period of procurement for this to be considered. We are happy to assist with any programmes once the initial discussions develop towards a workable proposal.

In relation to the options.

1. To lift the structure 20mm from 5.01m to 5.03m throughout
 - We would propose the use of our 40tonne capacity 50mm stroke jacking cylinders to lift the bridge the required height of 20mm in one continuous lift
 - We would propose that a Mabey Jacking Tower system is used to jack the bridge span and use a restraint system similar to a 'rugby goal post' to guide the bridge vertically (prevent the structure topping during the operation)
 - The Mabey Towers would be installed at the South Pier only
 - The wrag bolts holding the span into the padstone will need to be cut prior to the jacking operation
 - A consideration of the foundation for the mabey tower will need to be made, can we use any existing pier foundations to work off? Or do we need to install a new strip foundation to place the tower on and jack from
 - The road could remain open during the lift as the span will be guided by the 'goal post frame' although we understand if concerns require the road to be closed and the works to jack are carried out at night

Proposal

- Installation of a foundation or exposure of existing foundation strip at pier (south)
- Install jacking tower
- Install scaffold access around the prop to provide platform at required height
- Install jacking equipment

1

- Expose and cut wrag bolts / burn off bolt heads from from the bridge span into the pier padstone (this cold require concrete breakout)
- Jack bridge 20mm
- Lock off jacks
- Underetake any necessary works to implement the pier as a higher structure or await future removal of the bridge span by crane

Programme – assuming a simple strip foundation is required at the pier (400mm deep no greater) 2 weeks (10 working days Monday to Friday)

Budget Cost - £25,000.00 not including any welfare, TM or craneage

We have assumed no works to any spans away from the road crossing spans. We have not assumed any removal of equipment, this is to be left in place, hire rates for scaffold, props and jacks will equate to around £1k per week (after 2 weeks)

2. To lift the structure 400mm from 5.01m to 5.41m throughout

Temporary works proposal;

- We would propose the use of our 40tonne capacity 450mm stroke jacking cylinders to lift the bridge the required height of 450mm in one continuous lift
- We would propose that a Mabey Jacking Tower system is used to jack the bridge span and use a restraint system similar to a 'rugby goal post' to guide the bridge vertically (prevent the structure topping during the operation)
- The Mabey Towers would be installed at the South Pier, Central Pier and North Pier to lift both spans of the bridge, unless instructed otherwise
- The wrag bolts holding the span into the padstone will need to be cut prior to the jacking operation
- A consideration of the foundation for the mabey tower will need to made, can we use any exsiting pier foundations to work off? Or do we need to install a new strip foundatoon to place the tower on and jack from
- The road could remain open during the lift as the span will be guided by the 'goal post frame' although we understand if concerns require the road to be closed and the works to jack are carried out at night

Proposal

- Installation of a foundation or exposure of exisitng foundation strip at each pier (south, central and north)
- Install jacking towers
- Install scaffold access's around the props to provide platform at required height
- Install jacking equipment
- Expose and cut wrag bolts / burn off bolt heads from the bridge span into the pier padstone (this cold require concrete breakout)
- Jack bridge (two spans) 400mm
- Lock off jacks
- Underetake any necessary works to implement the piers as a higher structure or await future removal of the bridge span by crane

Programme – assuming a simple strip foundation is required at each pier (400mm deep no greater) 3 weeks (10 working days Monday to Friday)

Budget Cost - £55,000.00 not including any welfare, TM or craneage

We have assumed no works to any spans away from the road crossing spans. We have not assumed any removal of equipment, this is to be left in place, hire rates for scaffold, props and jacks will equate to around £2k per week (after 2 weeks)

I have attached a quick stech (in jpeg format I don't have scanning facilities at home) of my jacking tower proposal, I am happy to discuss this in more detail tomorrow.

I hope this is satisfactory and understandable.

If you have any queries please do not hesitate to contact me.

Best regards

Spencer

Spencer Goff BSc (Hons)
Project Manager

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From: Jember Weekes <Jember.Weekes@unitypartnership.com>
Sent: 20 April 2020 13:08
To: Spencer Goff <Spencer.Goff@ekspan.co.uk>
Cc: Sahoo, Ganapati <Ganapati.Sahoo@wsp.com>; Gordon Anderson <Gordon.Anderson@unitypartnership.com>; Nigel Molden <Nigel.Molden@unitypartnership.com>; Rezwan Khan <Rezwan.Khan@unitypartnership.com>
Subject: Oldham Way Footbridge - temp. raising
Importance: High

Hi Spencer,

I have been passed your contact details by your sales department. In the past I have worked with Richard Orrell on other projects, but I believe he has since left Ekspan. I was wondering if you could provide some advice and a budgetary estimate for the jacking and temporary propping of a bridge deck. This is for a composite deck footbridge with low headroom that has been impacted several times over the past years. Since the most recent impact a few weeks ago we are planning for the full removal of the deck, however under the current climate it is recognised that this will be difficult to mobilise quite quickly. So, what I am currently exploring for safety whilst arrangements are made for full removal, is the possibility of jacking the deck and propping at a higher location.

The current headroom is approximately 5.01m and as you may be aware the headroom requirement for footbridges is 5.41m, leaving a shortfall of around 400mm. I have attached a location plan, drawings, photos and a headroom sketch showing a few measurements taken across the carriageway. You can also get an overview using street view at the following link <https://www.google.com/maps/@53.5403769,-2.1052183,3a,75y,76.5h,92.49t/data=!3m6!1e1!3m4!1s00h0lh64!ks-k-aN5RDkTA!2e0!7i16384!8i8192>. You will see that the lowest point is over lane 1 of the westbound carriageway and is quite close to the point where the bridge has been impacted several times. I would like if you could consider for advice and estimating, 2 different options, the first being the slight raising of the deck from the south pier to achieve a minimum headroom of at least 5.03m throughout. The second option being the raising of the entire deck above the carriageway to achieve the 5.41m requirement.

For info, the bridge is temporarily closed to pedestrians, so there is no requirement for any localised ramping due to the difference in surface levels caused by any raising of the deck.

Unfortunately, the attached drawings are the most detailed drawings I can locate at present with measurements around the bearing locations but I'm hoping you can provisionally assess the available spaces for jacking and propping the deck using these and from the attached photos. It appears the beams span directly onto the piers and are held down to built-in padstones, with rag bolts. I am searching through our archives and might find better information, but it is taking a long time due to working remotely.

3

We have carried out a preliminary assessment of the deck in current condition considering a significant amount of effectivity loss of the bottom flange caused by impact. This assessment indicates the bridge does have capacity for dead, wind and reduced pedestrian loading. So, I am presuming at this stage that the careful lifting would not cause the beam to fail, though I appreciate we may need to revisit the assessment in more detail considering the effects of fatigue, any advice you could give on this will also be very much appreciated.

Also, please can you let me know Ekspans availability for undertaking the above works given the current climate.

I hope this is all relatively clear, however I am available to discuss this through over the phone if you would like more information.

Many thanks

Kind regards

Jember Weekes BSc (Hons) IEng MICE
Senior Engineer, Asset Management, Highways & Engineering



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Appendix C - Budget estimates and breakdown for removal and disposal of 2 spans

Jember Weekes

From: Spencer Goff <Spencer.Goff@ekspan.co.uk>
Sent: 30 April 2020 20:30
To: Jember Weekes
Cc: Sahoo, Ganapati; Gordon Anderson; Nigel Molden; Rezwan Khan; John Senior; Robert Lancaster
Subject: RE: Oldham Way Footbridge - temp. raising
Attachments: CKHI6480.JPG; IMG_2909.JPG; IMG_2912.JPG; IMG_2925.JPG; MOIQ1283.JPG

Hi Jember,

Thanks for the call earlier.

To clarify the request is to remove the two road spans of the footbridge only, leaving the piers and approach spans in position. There are two possible ways of doing this, first one is to continue with the jacking proposal as set out in my previous email, but to then lift the span out with a crane and dispose of the bridge spans away from site, then remove the temporary works.

The second cheaper, but potentially more risky option would be to undertake preparation works, burn off the heads of the holding down bolts from spans into the piers, lift out with a crane and dispose off site (without any temporary works)

We have assumed the bridge spans each way 18tonnes.

Please see below budget prices for the two options;

Option 1 – Install temporary works under the bridge span ends (4no locations), jack bridge, cut holding down bolts, remove spans and dispose off site, remove temporary works – leaving concrete piers in place

- Installation of a foundation or exposure of existing foundation strip at pier south, central and north piers
- Install jacking tower
- Install scaffold access around the prop to provide platform at required height
- Install jacking equipment
- Expose and cut wrag bolts / burn off bolt heads from from the bridge span into the pier padstone (this could require concrete breakout)
- Jack bridge 20mm
- Lock off jacks
- Close the road for a nightshift
- Locate 150 tonne crane on road and lift the bridge span off the concrete piers onto the back of an Ekspan wagon
- Dispose bridge span off site
- Remove temporary works
- Removal complete

Programme – assuming a simple strip foundation is required at the pier (400mm deep no greater) 3 weeks to prepare, 2 night shifts to remove the two spans, 1 week to remove temporary works

Budget Cost - £85k not including any welfare or Traffic Management costs

Option 2 – Install scaffold at pier locations, setup crane and sling bridge span, burn off holding down bolt heads, remove bridge spans and remove temporary works – leaving concrete piers in place

- Install scaffold access to pier locations at required height

- Carry out any necessary preparation works
- Setup crane and sling bridge span
- Burn off holding down bolts
- Lift bridge span onto
- Close the road for a nightshift
- Locate 150 tonne crane on road and lift the bridge span off the concrete piers onto the back of an Ekspan wagon
- Dispose bridge span off site
- Remove temporary works
- Removal complete

Programme – 1 week to prepare, 2 night shifts to remove the two spans, 4 days to demobilise

Budget Cost - £55k not including any welfare or Traffic Management costs

I have attached some photos of bridge lifts we have been involved in or undertook for reference of how these activities take place.

We are keen to work with you on this project, I hope the above and attached is satisfactory and of interest.

Best regards

Spencer

Spencer Goff BSc (Hons)
Director

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