

ROAD SAFETY REVIEW OF TEMPORARY TRAFFIC MANAGEMENT, IN JEDBURGH TOWN CENTRE.



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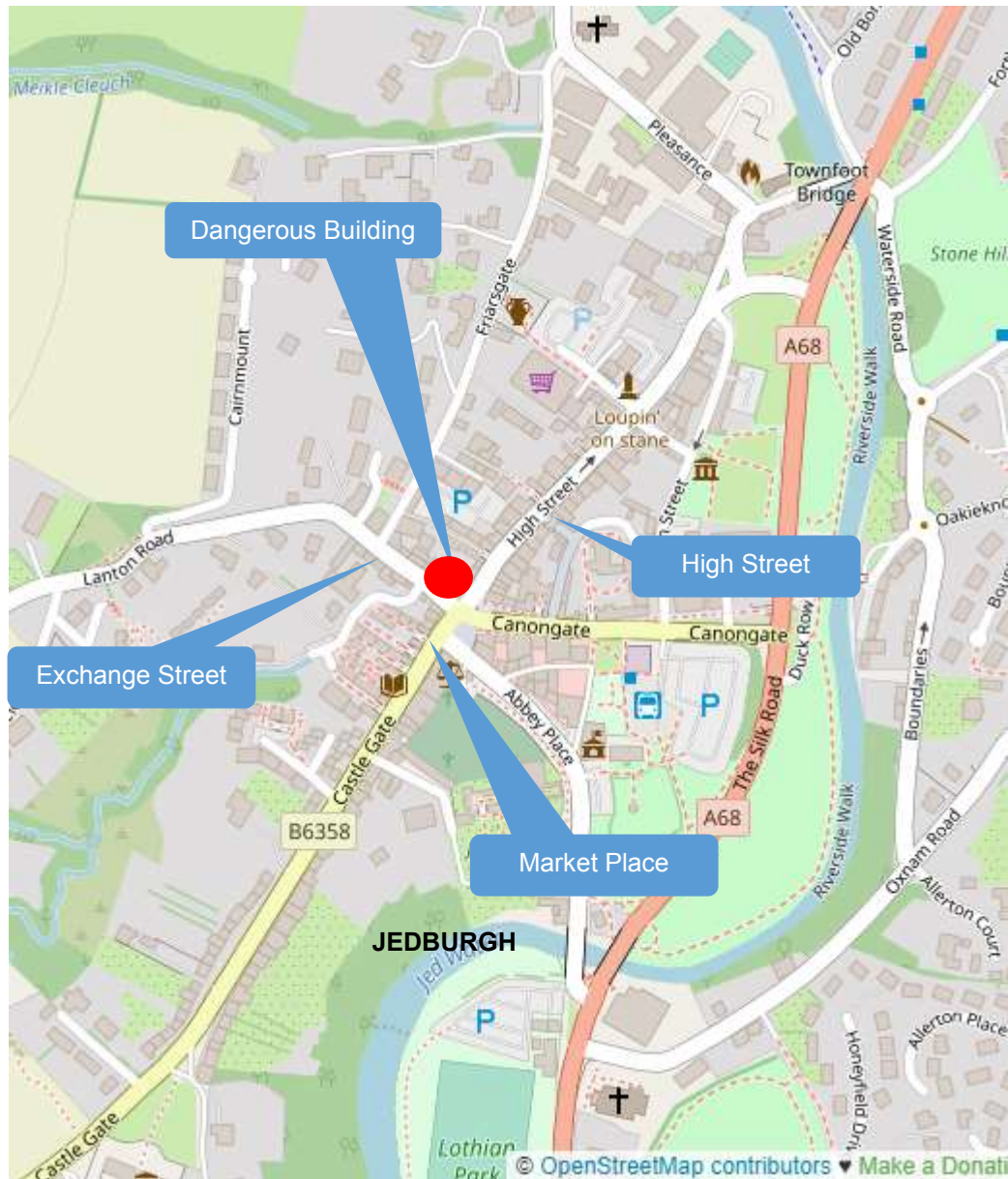
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1. INTRODUCTION

1.1. Brief

Wyllie Lodge Road Safety Consultants has been instructed by Scottish Borders Council to carry out an independent road safety review of temporary traffic management measures that have been put in place within Jedburgh town centre. These measures are required due to the proposed demolition of a dangerous building at the junction of Exchange Street and High Street.



Location Plan.

Temporary Traffic Management, Jedburgh Town Centre.

The local community have raised concerns about the temporary traffic management with Scottish Borders Council who have now instructed this report. This report details the findings of an independent inspection and assessment and makes recommendations which may help to improve the safety of all those who use the roads and footways within the area.

1.2. Review Team.

This report has been compiled by Blair Wyllie and David Lodge of Wyllie Lodge Road Safety Consultants. Both are experienced road safety engineers.

Blair Wyllie is an Incorporated Engineer (I. Eng), a member of the Chartered Institute of Highways and Transportation (MCIHT), a member of the Society of Road Safety Auditors and an accredited Cycle Trainer. He has gained over 35 years' experience in Local Road Authorities and as a consultant covering roads design, traffic management, parking enforcement and road safety engineering.

David Lodge has a BSc in Mechanical Engineering and gained an MSc in Transportation Planning & Engineering from Napier University in 2003. He is a Chartered member of the Institute of Logistics and Transportation (CIMLT), as well as a member of the Chartered Institute of Highways and Transportation (MCIHT) and the Society of Road Safety Auditors. He has over 35 years' experience gained with Lothian and Borders Police, Local Road Authorities and consultants within Scotland.

Both Blair and David hold Transport Scotland Certificate of Competency in Road Safety Auditing.

1.3. Methodology.

The methodology adopted for this review included;

- 1.3.1. Visiting the site and observing road user behaviour.
- 1.3.2. Walking along all footways.
- 1.3.3. Driving along the roads during daylight.
- 1.3.4. Review of email correspondence between the Community Council, public and Scottish Borders Council.
- 1.3.5. Identifying any existing road safety problems.
- 1.3.6. Determining conclusions and making recommendations.

1.4. The views expressed in this report are those of the authors.

2. SITE DESCRIPTION

- 2.1. The roads within the immediate area around the dangerous building, referred to as the “Corner Building” consist of carriageways with footways, street lighting and a 20mph speed limit. The road layout is of a traditional design that utilises the carriageways and footways to segregate vehicles and pedestrians. There are no shared surface streets where pedestrian mix with vehicles.
- 2.2. Scaffolding was first erected to protect the public from masonry falling from the Corner Building around 2015. The scaffolding was erected on the public road and reduced the effective width of the carriageway and blocked off a Zebra crossing on the High Street near to the junction with Cannongate. The reduced carriageway width does not allow for two-way traffic flow, so a temporary one-way system northbound was installed. A pedestrian walkway was initially provided under the scaffolding between Exchange Street and High Street, however the condition of the building has deteriorated and the scaffolding strengthened to provide structural support to the building. In doing so the walkway underneath the scaffold had to be removed and the remaining carriageway width is insufficient to accommodate a one-way vehicle flow and a safe pedestrian walkway.



Viewing North from Market Place towards High Street.

Temporary Traffic Management, Jedburgh Town Centre.



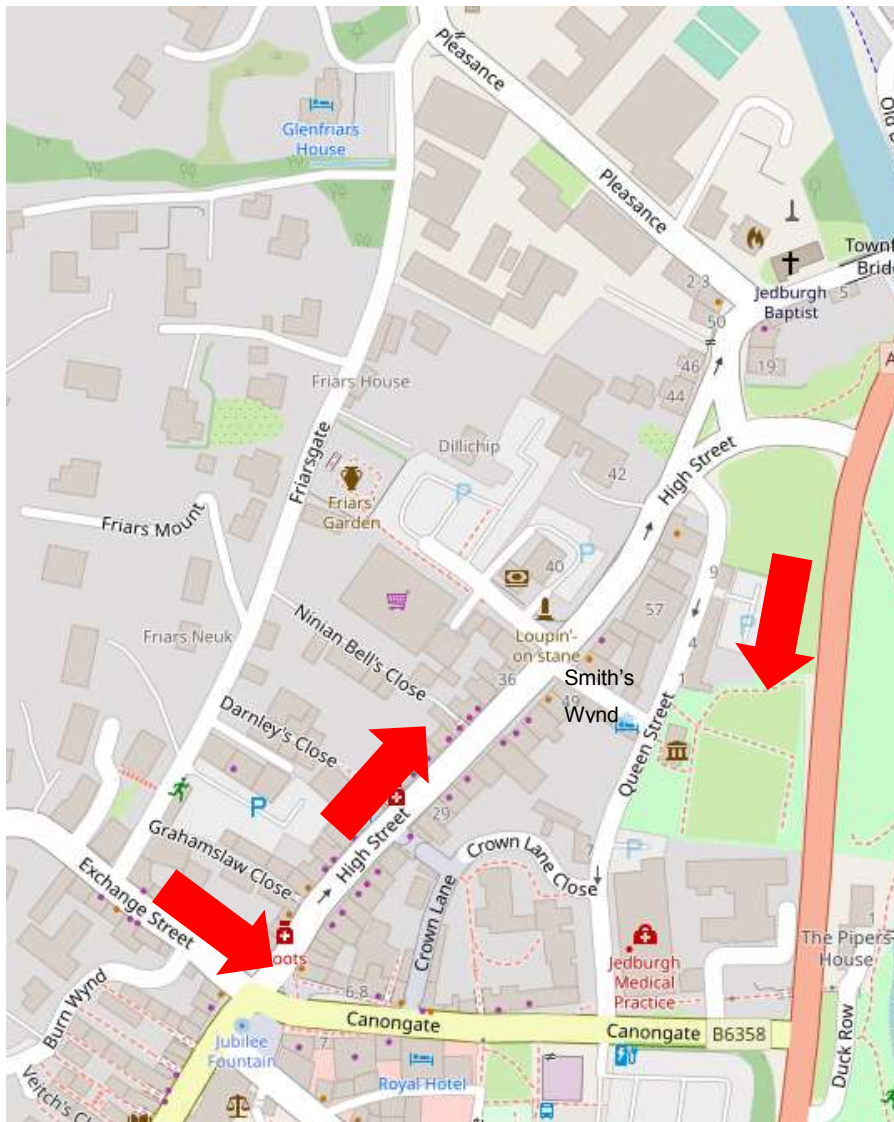
Viewing East along Exchange Street towards Market Place.



Viewing south along High Street from Jewellers Wynd.

Temporary Traffic Management, Jedburgh Town Centre.

- 2.3. Currently the scaffolding limits the carriageway width of High Street to 4.4m and on Exchange Street to 3.4m over the extents of the building frontage and nearest adjacent buildings. The scaffolding removes the continuous footway connection between High Street and Exchange Street and requires pedestrians walking between both to have to cross High Street, Canongate and Market Place to reach Exchange Street.
- 2.4. The reduced carriageway widths have resulted in the council imposing temporary one-way traffic management measures in order to maintain safe access for pedestrians, cyclist and all classes of vehicles. These measures are;
- 2.4.1. High Street, one-way northbound from Exchange Street to Queen Street.
 - 2.4.2. Exchange Street, one way eastbound from Burns Wynd to High Street.
 - 2.4.3. Queen Street, one-way southbound from High Street to Smith's Wynd.



Temporary One-way Operation.

3. IDENTIFIED ROAD SAFETY ISSUES.

- 3.1. The review team visited Jedburgh between 11:45 and 14:00 hours on Tuesday 26th April 2022. During the visit the weather was cloudy and cold, it had been raining and the road surface was wet. The review team drove and walked along the roads effected by the diversion whilst observing road user behaviour and noted the following;
- 3.2. Pedestrian and traffic flows were considered to be light at the time of the site visit.
- 3.3. The remnants of the Zebra crossing (road markings, zig-zag markings and Belisha beacon) on High Street are misleading and confusing as the crossing has been closed by temporary scaffolding acting as a barrier on the east side.
- 3.4. The lack of intervisibility between northbound drivers entering High Street and pedestrians attempting to cross High Street at Boots, where the footway is terminated.



Termination of footway on High Street.

- 3.5. The need for pedestrians walking between Exchange Street and High Street to cross 3 roads.
- 3.6. The lack of intervisibility between drivers exiting Exchange Street and pedestrians attempting to cross Exchange Street due to parked vehicles, and the lack of dropped kerbs and a level footway on the opposite side of the road.

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Exchange Street. Footway termination and pedestrian crossing location.

4. COMMUNITY CONCERNS.

- 4.1. The temporary traffic management measures have been in place for many years and the community now have concerns about its suitability and safety and request that parts of the temporary traffic management are removed or amended. These concerns and requests are detailed below.
 - 4.1.1. The lack of a suitable continuous pedestrian connection between Exchange Street and High Street. This would remove the need for pedestrians to cross Exchange Street, Market Place and Canongate to reach High Street.
 - 4.1.2. The lack of pedestrian crossing drop kerbs on High Street at the point of the footway is closed..
 - 4.1.3. Hazardous parking on the zig-zag markings associated with the redundant Zebra crossing.
 - 4.1.4. The removal of the temporary one-way operation on Exchange Street to effect the reintroduction of a two-way traffic flow with either temporary traffic lights or a priority give way system at the point where the scaffold narrows the carriageway to 3.4m.
 - 4.1.5. The reintroduction of two-way traffic on High Street between Queens Street and the Jewellers Wynd / Smith's Wynd junction.
 - 4.1.6. Displaced traffic using The Friars.
- 4.2. The review team have considered the above concerns and requests and have made recommendation in Section 6 of this report in relation to the above.

5. CONCLUSIONS

- 5.1. The protracted nature of the works stretches the definition of temporary traffic management. The Corner Building is still to be demolished and possibly a new building erected. Traffic management arrangements will be required for some years to come.
- 5.2. Current pedestrian provision and diversions around the scaffolding are inadequate. Pedestrian drop kerb crossing points are required on Exchange Street and Market Place, and the remnants of the Zebra crossing on High Street need to be removed and replaced by a controlled crossing (Zebra or Puffin) provided on High Street near to No. 11, where both footways widen.
- 5.3. The scaffolding on Exchange Street only leaves enough carriageway width for one lane of traffic and this is currently managed by a one-way traffic flow. Reintroducing a two-way traffic flow that is managed by either temporary traffic lights or a priority give way system would be less inconvenient for drivers accessing Burns Wynd, Lanton Road and The Friars, however this would create significant traffic congestion on Market Place and be to the detriment of road safety and for all road users at the Market Place, Cannongate, High Street junction. The use of temporary traffic lights or a temporary priority give way system should comply with the Safety at Street Works and Road Works Code of Practice¹. Traffic lights or a priority give way system would generate the following problems;
 - 5.3.1. Both temporary traffic lights and a priority give way system require a two lane wide carriageway on both approaches to accommodate queuing and flowing traffic to pass. Road space is also required to allow for weaving manoeuvres between the two lane and one- lane sections of carriageway. On Market Place and Exchange Street the need to maintain access to nearby junctions and the servicing requirements of the shops and residencies is very likely to result in the blockage of the two lane carriageway required for the effective operation of traffic lights or a priority give way system.
 - 5.3.2. The carriageway space is also required to accommodate loading and unloading of vehicles connected with the demolition or construction of the Corner Building. This will extend the length of road covered by the traffic lights or priority give way to include the Burns Wynd junction.
 - 5.3.3. The use of traffic lights to manage traffic flows along Exchange Street will require a 3-way set of signals to control traffic in both directions on Exchange Street as well as on Burns Wynd. The code of practice requires traffic signal lights to be located at a minimum of 10m in advance of the working zone (scaffolding) and the minimum sighting distances of 60m to the first sign to be kept clear. The time delay caused by

¹ Safety at Street Works and Road Works, A code of Practice. Dept of Transport 2013

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a set of 3-way temporary traffic signals will generate vehicle congestion and driver frustration, and the lack of intervisibility between waiting traffic queues, particularly from Burns Wynd, is very likely to result in some drivers not complying with the red light signal which will increase the potential for a collision. Temporary traffic lights will generate queuing and congestion in Market Place and Cannongate which in turn will block access to High Street.

- 5.3.4. A priority give way system would be less disruptive to traffic flows on Market Place if it gave priority to vehicle entering Exchange Street from Market Place and Cannongate. However this system of traffic control requires drivers approaching from either direction to have 60m forward visibility before and after the works². On-street parking along the east side of Exchange Street would need to be prohibited and enforced in order to provide carriageway space for queuing traffic at the give way. Westbound drivers on Exchange Street would not have sufficiently safe forward sightline of left turning vehicles entering Exchange Street from Market Place. This will generate conflict and congestion resulting in an increase in reversing manoeuvres. Reversing manoeuvres are particularly hazardous in areas where there is high pedestrian activity.
- 5.3.5. The existing one-way traffic flow is the simplest and safest method of traffic management in this situation. A priority give way system is likely to be less disruptive to traffic flows than temporary traffic lights, however both of these systems require extensive parking and loading restrictions, will generate considerable congestion, and are unlikely to be fully compliant to the code of practice..
- 5.4. The request for the one-way on High Street to be shortened to allow two-way traffic between Queen Street and Jewellers Wynd has been considered. This request suggests using the Co-Op shop car park as a turning area. However this presents liability issues for both the Road Authority (Scottish Borders Council) and the car park owners and/or operators. Additionally the swept paths for large vehicles is unlikely to be achievable. There will be no effective enforcement of a one-way within the car park. Accelerated wear and damage to the surfacing could be caused by the tight turning forces of large vehicles using the car park. Shop customers walking to and from their cars in the centre of the car park would be exposed to a greater risk of being knocked down due to the increased volume of traffic. Where drivers on a public road are faced with a No Entry they must have a safe and suitable alternative route, whether that be a side road or a turning area, where they can turn their vehicle without reversing. There is insufficient room at the junction of High Street and Jewellers Wynd to provide a safe turning area.
- 5.5. The Friars is a narrow residential access road with a narrow footway along its west boundary and high boundary walls that abut the footway or opposite carriageway. These features reduce forward visibility and help self-regulate some vehicle speeds. It will no doubt be carrying additional

² Safety at Street Works and Road Works, A Code of Practice.p58, Dept of Transport

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traffic due to the diversion and some residents are required to turn and retrace their journey in order to access their drive ways. The additional volume of traffic generated by the diversion may cause inconvenience to some drivers and residents but it does not raise any road safety concerns.

- 5.6. The continues use of temporary signs in standalone sign frames and on temporary sign pole bases will give Scottish Borders Council a more onerous inspection and maintenance burden than if the signs were mounted on permanent fixtures. This would also remove red and white protective barriers from the carriageway at the Queen Street / High Street junction.
- 5.7. The diversions imposed by the scaffolding at the Corner Building present a hazard to pedestrians and an inconvenience to drivers.

6. RECOMMENDATIONS

- 6.1. Pedestrian drop kerbs are provided on both sides of Exchange Street at the termination of the east footway.
- 6.2. Pedestrian drop kerbs are provided on both sides of Market Place near to its junction with Exchange Street.
- 6.3. The remnants of the Zebra crossing on High Street are removed.
- 6.4. A new controlled pedestrians crossing is provided on High Street near to No. 11.
- 6.5. The one-way operation on Exchange Street remains.
- 6.6. The Co-Op car park is not used as a turning point for public road traffic therefore the No Entry signs on High Street at the junction with Jewellers Wynd should remain.
- 6.7. Where practical, temporary signs in standalone sign frames and on temporary sign pole bases should be mounted on permanent poles or fixtures. The use of more permanent street furniture is expected to improve compliance to the restrictions.

END.