

COMMITTEE	Communities, Housing and Infrastructure
DATE	08 November 2017
REPORT TITLE	Refuge Crossing at North Deeside Road
REPORT NUMBER	CHI/17/245
INTERIM DIRECTOR	Bernadette Marjoram
REPORT AUTHOR	James Watt

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**1. PURPOSE OF REPORT:-**

The purpose of this report is to provide the Committee with information relating to the petition for a crossing refuge on North Deeside Road, near its junctions with Abbotshall Road and Westerton Road, provide information on the feasibility and costs of installing a refuge crossing at this location, and provide members with the results of the pedestrian surveys previously carried out on North Deeside Road.

**2. RECOMMENDATION**

It is recommended that no further action is requested at this location.

**3. BACKGROUND/MAIN ISSUES**

- 3.1 At its meeting on 14 June 2017, the Petitions Committee was presented with a request for a Crossing Refuge on North Deeside Road, Cults. The petition read:

*“We the undersigned, petition the Council to give consideration to provide a crossing refuge on North Deeside Road near the junction of Abbotshall Road and Westerton Road.”*

As a result of this petition the committee resolved to:

- (i) agree that a report be submitted to the Communities, Housing & Infrastructure Committee providing information on the feasibility and costs of providing a refuge crossing on North Deeside Road; and
- (ii) request that officers provide members with copies of the surveys previously carried out on North Deeside Road.

3.2 Following these decisions, officers have completed a preliminary design for a pedestrian refuge island on North Deeside Road, between its junctions with Westerton Road and Abbotshall Road (Appendix 1). When considering appropriate locations for locating the island the following were taken into consideration:

- (i) The horizontal alignment of the carriageway, west of the junctions, restricts forward visibility and therefore stopping sight distance is reduced;
- (ii) The density of private accesses and junctions with North Deeside Road at this location, vehicles waiting to make a right turn may obscure the visibility of pedestrians on the crossing;
- (iii) The reasonably high volume of turning vehicles at the junction between North Deeside Road and Westerton Road;
- (iv) The locations of the existing pedestrian crossing facilities; and
- (v) Any design would either require a significant departure from council policy and design standards or land take from adjacent properties. There is a requirement to widen the existing cycle lane past the crossing point, to avoid unsafe overtaking of cyclists at this point, however the ACC Active Travel Plan presumes against the reinstatement of advisory cycle lanes. To install a mandatory 2m wide cycle lane, as per design standards, would require the carriageway to be widened.

3.3 Based on the preliminary design, should an island be installed at this point on North Deeside Road there would be cost implications. The cost of construction would include for construction of the island itself, including electrical supplies for a beacon, lining, signing, bollards, and traffic management for closing North Deeside Road to maintain a safe working environment. Officers estimate a cost of around £20,000 as well as a maintenance burden on the Council of £500 every 5 years for relining and further costs for infrastructure maintenance would remain. If land take was required from adjacent properties this would add to the cost of providing the pedestrian crossing. If recommendation goes against officers, officers will have to liaise with estates/property legal team to estimate the likely costs of this.

3.4 When considering possible sites for pedestrian facilities or type of crossing facilities, council officers utilise methods outlined by the Department of Transport to undertake what is referred to as a  $PV^2$  survey. This requires both pedestrian movements (P) and traffic flows (V) to be recorded at peak times in order to determine a base figure. This is then amended to account for other contributory factors such as carriageway width, accident history, local facilities (i.e. schools, shops, clinic etc.) to give an overall figure which is measured using the table as shown below.

<b>Resultant Figures (<math>PV^2 \times 10^{-8}</math>)</b>	<b>Type of facility to be considered</b>
Less than 0.7	Does not qualify for any type of crossing facility but will continue to be monitored and in some instances may qualify for a central refuge island

Between 0.7 and 1.0	Will qualify for the provision of a central refuge island
Greater than 1.0	Qualifies for the provision of a controlled crossing facility

The volumes of vehicles and pedestrians at this point do not currently qualify the crossing for any of the measures above. Results of previous PV<sup>2</sup> surveys from 2012 (PV<sup>2</sup> value: 0.02), 2015 (PV<sup>2</sup> value: 0.03109) and 2017 (PV<sup>2</sup> value: 0.1753) are provided in Appendix 2 of this report.

### 3.5 Conclusion

When considering the above, whilst feasible, officers would have serious concerns with implementing a pedestrian refuge island at the desired location. Traffic surveys have shown there is insufficient pedestrian demand to justify the provision of a refuge island at this location and to implement this facility would set a precedent for providing pedestrian crossing facilities where surveys have shown demand is low. Pedestrians have the option of utilising the two existing crossing points, one approximately 185 metres east of the bus stop and one approximately 275 metres west of it. Based on the above it is recommended that no further action is requested at this location.

## 4. FINANCIAL IMPLICATIONS

There are no direct financial implications arising from the recommendations of this report. However an estimated cost for the implementation of the preliminary design is included in section 3.3 of this report.

## 5. LEGAL IMPLICATIONS

There are no direct legal implications arising from the recommendations of this report.

## 6. MANAGEMENT OF RISK

### Financial

- 6.1 There is no financial risk associated with these proposals; as the recommendation is to take no further action at this location.

### Employee

- 6.2 No significant risk.

### Customer/Citizen

- 6.3 No significant risk

### Environmental

6.4 No significant risk

**Technological**

6.5 No significant risk

**Legal**

6.6 No significant risk

**Reputational**

6.7 This request has come from residents within the local area. It is likely that there will be negative feeling amongst these residents as the recommendation is not to grant this request for an additional pedestrian crossing facility.

Potential Impact: Low

Likelihood of occurrence: Medium

Mitigation: Concerned parties would be provided thorough rationale as to rationale for this recommendation.

Risk Level: Low

## **7. IMPACT SECTION**

### **Economy**

N/A

### **People**

This request has come from residents within the local area. They feel there is a need for the crossing to assist vulnerable travellers crossing to the main population area on the north side of North Deeside Road. Local residents use the bus stop on North Deeside Road close to Westerton Road to access local and city services. They can then cross the road to access the nearby residential and retail areas primarily using Abbotshall Road which provides access to many residential streets. Abbotshall Road is on a gradient which can be a challenge for some pedestrians. The distance from the alternative crossing points and the gradient of Abbotshall Road may discourage some elderly or infirm pedestrians for accessing the bus services.

### **Place**

There are no direct impacts arising from the recommendations of this report as it is suggested that no further action is taken at this location.

## **Technology**

N/A

### **8. BACKGROUND PAPERS**

N/A

### **9. APPENDICES**

Appendix 1- Draft Design

Appendix 2 - Pedestrian Survey Results

### **10. REPORT AUTHOR DETAILS**

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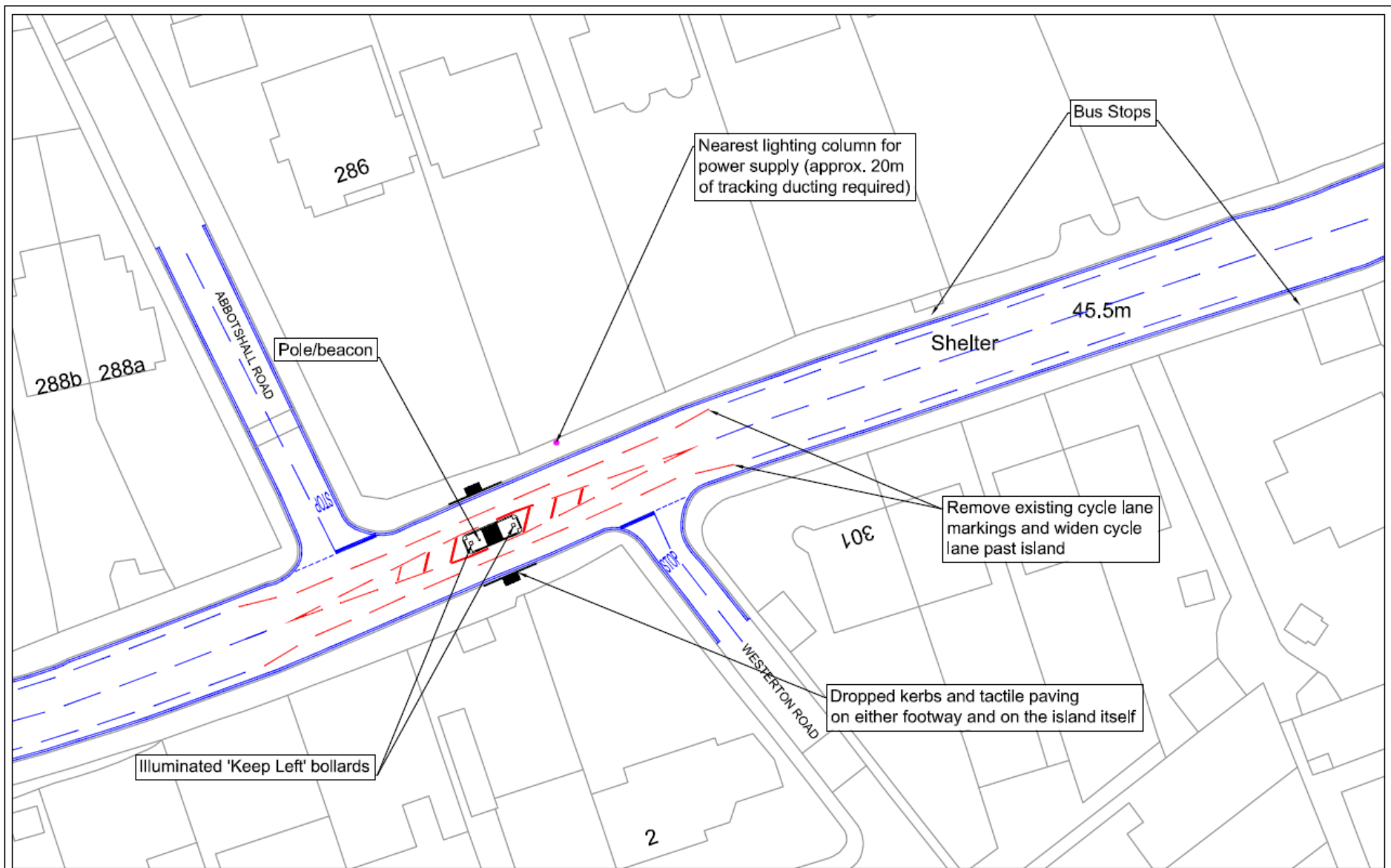
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 <p>COMMUNITIES, HOUSING &amp; INFRASTRUCTURE Traffic Management and Road Safety Team Business Hub 11, Macleach College, Aberdeen, AB10 1BA Telephone 01224 538053</p>	<p>Project</p> <p>CHI/17/245 - Refuge Crossing at North Deeside Road</p>	<p>Title</p> <p>APPENDIX 1 - North Deeside Road Pedestrian Refuge Island PRELIMINARY DESIGN</p>	<p>Scale</p> <p>A4 - 1:500</p> <p>Designed</p> <p>JW</p> <p>Drawn</p> <p>JW</p>	<p>Approved</p> <p>Date 25.07.2017</p>
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## Appendix 2

### PEDESTRIAN CROSSING SURVEY (PV<sup>2</sup>)

Location: North Deeside Road/Westerton Road

Date and Day: 08/05/2017 - Tuesday

	VEHICLES			PEDESTRIANS			
TIME	DIRECTION		TOTAL	DIRECTION		TOTAL	PV <sup>2</sup> *10 <sup>-8</sup>
	<u>TOWARDS</u>	<u>TOWARDS</u>		<u>TOWARDS</u>	<u>TOWARDS</u>		
	A	B		A	B		
07:30 – 08:30	-	-	-	-	-	-	-
08:30 – 09:30	-	-	-	-	-	-	-
12:30 – 13:30	337	234	571	03	01	04	0.01
13:30 – 14:30	321	260	581	01	07	08	0.02
15:00 – 16:00	-	-	-	-	-	-	-
16:00 – 17:00	-	-	-	-	-	-	-
AVERAGE							0.02

Points Assessment System (Traffic Note 3A)															
a	b	c	di	ii	e	f	gi	li	lii	lv	v	vii	viii	h	
0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	Factor 1.1
<u>Rough Sketch of Location</u>															Modified PV <sup>2</sup> *10 <sup>-8</sup> 0.02
															Criterion
															Justified
															<b>NO</b>

## **PEDESTRIAN CROSSING SURVEY (PV<sup>2</sup>)**

Location: North Deeside Road near Westerton Road

Date and Day: 14/01/2015 - Wednesday

	VEHICLES			PEDESTRIANS			
TIME	DIRECTION		TOTAL	DIRECTION		TOTAL	PV <sup>2</sup> *10 <sup>-8</sup>
	<u>TOWARDS</u>	<u>TOWARDS</u>		<u>TOWARDS</u>	<u>TOWARDS</u>		
	A	B		A	B		
08:00 – 09:00	408	515	923	2	1	3	0.02560
09:00 – 10:00	336	403	739	2	1	3	0.01638
13:00 – 14:00							
15:00 – 16:00	525	398	923	5	0	5	0.0426
16:00 – 17:00							
AVERAGE							0.0282

Points Assessment System (Traffic Note 3A)															
a	b	c	di	ii	e	f	gi	li	lii	lv	v	vii	viii	h	
0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	Factor 1.1
<u>rough Sketch of Location</u>														Modified PV <sup>2</sup> *10 <sup>-8</sup>	0.03109
														Criterion	
														Justified	
															<b>NO</b>



## **PEDESTRIAN CROSSING SURVEY (PV<sup>2</sup>)**

Location: North Deeside Road from a point approximately 400m east of its junction with Westerton Road and its junction with Station Road (including the two existing refuge islands)

Date and Day: 24/01/2017 - Tuesday

Site A

Time	Total Vehicles	Total Pedestrians	PV <sup>2</sup> x10 <sup>-8</sup>
08:00 - 09:00	906	9	0.07387524
12:00 - 13:00	768	6	0.03538944
16:00 - 17:00	1000	4	0.04
17:00 - 18:00	847	3	0.02152227
			0.042696738
<b>Average:</b>			
<b>4 D.P:</b>			0.0427
<b>Modified PV:</b>			0.0555

Points Assessment System  
(Traffic Note 3A)

Volume of Traffic 800+

Bus Stops

Carriage way width

**Multiplication Factor**

1.  
3

Site B

Time	Total Vehicles	Total Pedestrians	PV <sup>2</sup> x10 <sup>-8</sup>
08:00 - 09:00	906	11	0.09029196
12:00 - 13:00	768	4	0.02359296
16:00 - 17:00	1000	12	0.12
17:00 - 18:00	847	16	0.11478544
			0.08716759
<b>Average:</b>			
<b>4 D.P:</b>			0.0922
<b>Modified PV:</b>			0.1198

Combined

Time	Total Vehicles	Total Pedestrians	PV <sup>2</sup> x10 <sup>-8</sup>
08:00 - 09:00	906	20	0.1641672
12:00 - 13:00	768	10	0.0589824
16:00 - 17:00	1000	16	0.16
17:00 - 18:00	847	19	0.13630771
<b>Average:</b>			0.1298643

	28
<b>4 D.P:</b>	0.1349
<b>Modified PV:</b>	0.1753