

**Report to the Chief Officer (Highways and Transportation)**

**Date: 14 October 2014**

**Subject: Design & Cost Report for Phase 3 of MOVA signal control to reduce junction delays**

**Capital Scheme Number : 16285 / 000 / 000**

Are specific electoral Wards affected?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
If relevant, name(s) of Ward(s):	Moortown Farnley & Wortley Garforth & Swillington	
Are there implications for equality and diversity and cohesion and integration?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is the decision eligible for Call-In?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Does the report contain confidential or exempt information?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
If relevant, Access to Information Procedure Rule number:		
Appendix number:		

**Summary of main issues**

1. To continue to improve congestion levels and journey time reliability at traffic signal junctions by introducing **MOVA** control (**M**icroprocessor **O**ptimised **V**ehicle **A**ctuation) on up to 4 sites. This will provide a safer and more efficient service for our customers and allows greater Local Transport Plan benefits to ensue.

**Recommendations**

- 2 The Chief Officer (Highways and Transportation) is requested to:
  - i) note the contents of this report;
  - ii) approve the proposals at the total cost of £216,000; and
  - iii) give authority to incur expenditure of £202,000 works costs and £14,000 staff costs, to be funded from the LTP Transport Policy Capital Programme.

**1 Purpose of this report**

- 1.1 To seek approval for phase three of the MOVA delay reduction programme to convert selected isolated junctions to MOVA control to reduce congestion and improve journey time reliability.

## **2 Background information**

- 2.1 Standard detection systems have fixed green time extensions that hold traffic greens whilst vehicles are present. MOVA assesses the flows and adjusts green time based on volume of traffic and shares delay accordingly.
- 2.2 Phase 2 of the MOVA delay reduction programme proposed to implement MOVA at 5 sites. The following 3 are under way, with designs completed and equipment ordered, and awaiting civils work
- 904L A61 Harrogate Road / A659 Harewood Avenue
  - 877L A65 / Kirk Lane / Dibb Lane
  - 783L A650 Wakefield Road / Common Lane / Westerton Road
- Detailed design and costing (including the need to replace the controllers) has meant that costs are greater than the provisional costs in the phase 2 report, and depending on the exact cost of the civils may require the whole of the MOVA phase 2 budget.
- The fourth site, 955L (A656 Barnsdale Road / Longdike Lane), is being held in reserve if phase 2 funds permit.
- The fifth site 785L (A58 Whitehall Road / Back Lane), will be moved to phase 3.
- 2.3 Queue surveys for all 5 phase 2 sites have been undertaken so the effectiveness of MOVA control compared with vehicle actuation can be measured.
- 2.4 The new sites have been selected from those traffic signals not under continuous computer control. Sites have been prioritised according to congestion, delays, cost, etc. (see attached table in Appendix 1). This list has been updated since the Phase 2 report.
- 2.5 Phase 3 proposes to install MOVA at
- 785L A58 Whitehall Road / Back Lane
  - 403L Harrogate Road / Street Lane
  - 950L A63 Selby Road / Ninelands Lane
- If phase 2 does not complete 955L (A656 Barnsdale Road / Longdike Lane) this will be included in phase 3.
- 2.6 The introduction of MOVA at these sites will reduce delays and therefore aid in reducing pollution. TRL suggest that on average MOVA gave a reduction in delay of 13% (which generally equates to about 2-3% improvement in capacity) may be achieved, though this will vary from site to site.

## **3 Main issues**

### **3.1 Design Proposals/Scheme Description**

- 3.1.1 The existing vehicle actuation detection loops are not in the correct locations for MOVA detection loops and need to be supplemented with new loops further away. Existing ducting will need to be proven suitable for re-use and may require some replacement/repair. The estimate for works includes a contingency for minor duct replacement.

- 3.1.2 The work includes surveys of the existing traffic conditions in order to prepare a MOVA configuration data set. A MOVA computer unit will be purchased, configured and installed at each site, then commissioned.
- 3.1.3 At Harrogate Road / Street Lane the existing equipment is so old that it will need refurbishing before new equipment and control can be added.
- 3.1.4 It is proposed to use the signal contractors to undertake the majority of the work, using the existing supply and install contract. They have demonstrated their ability to do this sort of 'whole scheme' work in other West Yorkshire Districts.

## **3.2 Programme**

- 3.2.1 It is proposed to start work as soon as approval is received. Work will continue throughout the financial year 2014/2015.
- 3.2.2 The provisional costs estimates are given below.

Works Cost	Site
£113,000	403L Harrogate Road / Street Lane
£47,000	785L A58 Whitehall Road / Back Lane
£42,000	950L A63 Selby Road / Ninelands Lane

- 3.2.3 The above works costs total £202,000.
- 3.2.4 Staff costs are £14,000, to cover liaison with the signal companies, and final checking and commissioning.

## **4 Corporate Considerations**

### **4.1 Consultation and Engagement**

- 4.1.1 Ward Members have not been consulted to-date but will be advised of the proposals and their anticipated benefits with the opportunity of a further briefing if they have any queries regarding the changes.
- 4.1.2 No further consultation is proposed since the measures do not significantly change the way the junctions operate.

### **4.2 Equality and Diversity / Cohesion and Integration**

- 4.2.1 A screening document has been prepared and an independent impact assessment is not required for the approvals requested. The document is attached as Appendix 1.
- 4.2.2 The scheme will provide a safer environment for all people using the signalled controlled junctions by reducing the amount of time/number of vehicles which are left idling at red signals. This should assist in reducing noise and emissions pollution which affect vulnerable equality groups. A small reduction in cycle time will benefit all pedestrians including those with mobility problems, blind or visually impaired, children, carers (supporting pushchairs/wheelchairs).

4.2.3 Motorists will be slightly disrupted during the construction of the works but overall no long term negative impact has been identified.

4.2.4 The Equality, Diversity, Cohesion and Integration screening assessment is attached.

### **4.3 Council Policies and City Priorities**

4.3.1 The proposals contained in this report assist in delivering the Local Transport Plan (LTP) in the following ways.

4.3.2 Transport assets: “Use new network management practices to minimise congestion and ensure efficient recovery from disruption.” The proposal uses the latest technology to reduce congestion at specific sites. “Minimise the carbon footprint and emissions of assets and associated management and maintenance practices.” The proposal will reduce delays and stops at these junctions, with environmental benefits.

4.3.3 Enhancements: “To make targeted technological and structural enhancements to the transport system for greater capacity and performance.... Get better use from the existing network including investing in additional capacity to address congestion and overcrowding at key locations.” Installing MOVA uses technology to benefit a specific junction.

4.3.4 The proposals will contribute to the City Priorities to improve journey times and the reliability of public transport.

4.3.5 Community Safety: The proposals within this report have no implications under Section 17 of the Crime and Disorder Act 1998.

4.3.6 Council Constitution: The proposals contained in this report do not have any implications in respect of the Council Constitution.

### **4.4 Resources and Value for Money**

4.4.1 The estimated total cost for this scheme is £216,000, consisting of £202,000 works costs and £14,000 staff costs, which will be funded from the LTP Transport Policy Capital Programme.

4.4.2 Capital Funding and Cash Flow: The estimated total cost of £216,000 can be funded from the LTP Transport Policy Capital Programme.

Funding Approval :		Capital Section Reference Number :-						
Previous total Authority to Spend on this scheme	TOTAL £000's	TO MARCH 2014 £000's	FORECAST					
			2014/15 £000's	2015/16 £000's	2016/17 £000's	2017/18 £000's	2018 on £000's	
LAND (1)	0.0							
CONSTRUCTION (3)	0.0							
FURN & EQPT (5)	0.0							
DESIGN FEES (6)	0.0							
OTHER COSTS (7)	0.0							
<b>TOTALS</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	
Authority to Spend required for this Approval		TOTAL £000's	TO MARCH 2014 £000's	FORECAST				
				2014/15 £000's	2015/16 £000's	2016/17 £000's	2017/18 £000's	2018 on £000's
LAND (1)	0.0							
CONSTRUCTION (3)	202.0			202.0				
FURN & EQPT (5)	0.0							
DESIGN FEES (6)	14.0			14.0				
OTHER COSTS (7)	0.0							
<b>TOTALS</b>	<b>216.0</b>	<b>0.0</b>	<b>216.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	
Total overall Funding (As per latest Capital Programme)		TOTAL £000's	TO MARCH 2014 £000's	FORECAST				
				2014/15 £000's	2015/16 £000's	2016/17 £000's	2017/18 £000's	2018 on £000's
Government Grant - LTP / TSG	216.0			216.0				
Total Funding	216.0	0.0	216.0	0.0	0.0	0.0	0.0	
<b>Balance / Shortfall =</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	

**Parent Scheme Number:** 99609

**Title:** LTP Transport Policy Capital Programme

#### Revenue Costs:

There are no revenue costs envisaged as a result of this capital scheme.

#### 4.5 Legal Implications, Access to Information and Call In

4.5.1 This report is not eligible for call in as the proposals fall below the relevant threshold

#### 4.6 Risk Management

4.6.1 All works will be carried out in accordance with the Highways Agency's Code of Practice for Traffic Control and Information Systems (MCH 1869).

#### 5 Conclusions

5.1 The introduction of MOVA control to signal junctions experiencing capacity problems can increase the efficiency of operation, reduce congestion, reduce delays and improve journey time reliability on the network for the benefit of all users.

## **6 Recommendations**

6.1 The Chief Officer (Highways and Transportation) is requested to:

- i) note the contents of this report;
- ii) approve the proposals at the total cost of £216,000; and
- iii) give authority to incur expenditure of £202,000 works costs and £14,000 staff costs, to be funded from the LTP Transport Policy Capital Programme.

## **7 Background documents<sup>1</sup>**

7.1 Spreadsheet of Possible MOVA Sites 2013, attached as Appendix 2.

<sup>1</sup> The background documents listed in this section are available to download from the Council's website, unless they contain confidential or exempt information. The list of background documents does not include published works.

## Equality, Diversity, Cohesion and Integration Screening



As a public authority we need to ensure that all our strategies, policies, service and functions, both current and proposed have given proper consideration to equality, diversity, cohesion and integration.

A **screening** process can help judge relevance and provides a record of both the **process** and **decision**. Screening should be a short, sharp exercise that determines relevance for all new and revised strategies, policies, services and functions. Completed at the earliest opportunity it will help to determine:

- the relevance of proposals and decisions to equality, diversity, cohesion and integration.
- whether or not equality, diversity, cohesion and integration is being/has already been considered, and
- whether or not it is necessary to carry out an impact assessment.

<b>Directorate: City Development</b>	<b>Service area: Transport Policy</b>
<b>Lead person: Udo Redfearn</b>	<b>Contact number: 2476764</b>

<b>1. Title: MOVA Delay Reduction</b>
Is this a:
<input type="checkbox"/> <b>Strategy / Policy</b> <input type="checkbox"/> <b>Service / Function</b> <input type="checkbox"/> <b>Other</b>
<b>If other, please specify</b>

<b>2. Please provide a brief description of what you are screening</b>
The screening process looks at the proposals to introduce <b>Microprocessor Optimised Vehicle Actuation (MOVA)</b> control at three isolated sites within Leeds. The introduction of this form of control will provide a safer and more efficient service for our customers and allows greater Local Transport Plan benefits to ensue.

<b>3. Relevance to equality, diversity, cohesion and integration</b>
All the council's strategies/policies, services/functions affect service users, employees or the wider community – city wide or more local. These will also have a greater/lesser relevance to equality, diversity, cohesion and integration.
The following questions will help you to identify how relevant your proposals are.

When considering these questions think about age, carers, disability, gender reassignment, race, religion or belief, sex, sexual orientation and any other relevant characteristics (for example socio-economic status, social class, income, unemployment, residential location or family background and education or skills levels).		
Questions	Yes	No
Is there an existing or likely differential impact for the different equality characteristics?	X	
Have there been or likely to be any public concerns about the policy or proposal?		X
Could the proposal affect how our services, commissioning or procurement activities are organised, provided, located and by whom?		X
Could the proposal affect our workforce or employment practices?		X
Does the proposal involve or will it have an impact on <ul style="list-style-type: none"> <li>• Eliminating unlawful discrimination, victimisation and harassment</li> <li>• Advancing equality of opportunity</li> <li>• Fostering good relations</li> </ul>		X

If you have answered **no** to the questions above please complete **sections 6 and 7**

If you have answered **yes** to any of the above and;

- Believe you have already considered the impact on equality, diversity, cohesion and integration within your proposal please go to **section 4**.
- Are not already considering the impact on equality, diversity, cohesion and integration within your proposal please go to **section 5**.

<b>4. Considering the impact on equality, diversity, cohesion and integration</b>
If you can demonstrate you have considered how your proposals impact on equality, diversity, cohesion and integration you have carried out an impact assessment.
Please provide specific details for all three areas below (use the prompts for guidance).
<ul style="list-style-type: none"> <li>• <b>How have you considered equality, diversity, cohesion and integration?</b> (<b>think about</b> the scope of the proposal, who is likely to be affected, equality related information, gaps in information and plans to address, consultation and engagement activities (taken place or planned) with those likely to be affected)</li> </ul> <p>On isolated junctions the practice is to utilize vehicle detection to apportion green time to the vehicle approaches within fixed parameters (standard <b>Vehicle Actuation</b>). Over time these pre-calculated parameters can become out of date if not regularly monitored and can cause congestion and increasing delays, especially on the minor side roads leading to increased pollution and noise. The sites that have been identified have congestion problems and therefore increasing waiting times for vehicles that increases noise and pollution due to idling vehicles.</p> <p>This can be a problem to all pedestrians especially those with mobility issues, carers' (supporting wheelchairs/prams) plus young and older people who would be more vulnerable to the effects of pollution and those waiting at bus stops close to the junction.</p>



<ul style="list-style-type: none"> <li>• <b>Key findings</b> (<b>think about</b> any potential positive and negative impact on different equality characteristics, potential to promote strong and positive relationships between groups, potential to bring groups/communities into increased contact with each other, perception that the proposal could benefit one group at the expense of another)</li> </ul> <p>The positive impact of introducing the new MOVA controls is that it reduces congestion, pollution to all pedestrians, especially those who are more vulnerable as stated above.</p>
<ul style="list-style-type: none"> <li>• <b>Actions</b> (<b>think about</b> how you will promote positive impact and remove/ reduce negative impact)</li> </ul>

<b>5. If you are not already considering the impact on equality, diversity, cohesion and integration you will need to carry out an impact assessment.</b>	
Date to scope and plan your impact assessment:	
Date to complete your impact assessment	
Lead person for your impact assessment (Include name and job title)	

<b>6. Governance, ownership and approval</b> Please state here who has approved the actions and outcomes of the screening		
<b>Name</b>	<b>Job title</b>	<b>Date</b>
Gordon Robertson	UTMC Manager	18 <sup>th</sup> September 2014

<b>7. Publishing</b> This screening document will act as evidence that due regard to equality and diversity has been given. If you are not carrying out an independent impact assessment the screening document will need to be published.  Please send a copy to the Equality Team for publishing	
<b>Date screening completed</b>	18 <sup>th</sup> September 2014
<b>Date sent to Equality Team</b>	
<b>Date published</b> (To be completed by the Equality Team)	