

TONBRIDGE & MALLING BOROUGH COUNCIL

JOINT TRANSPORTATION BOARD

20 September 2010

Report of the Head of Countywide Improvements

Part 1- Public

Matters For Decision

**1 OPERATIONAL AND SAFETY WORKS PROPOSED FOR THE A228
LEYBOURNE AND WEST MALLING BYPASS AND M20 JUNCTION 4**

Summary

Following the study carried out by Jacobs in April/June 2010, regarding operational and safety concerns along the A228 Bypass and at M20 Junction 4, this report puts forward a list of work proposals for approval.

1.1 Background

- 1.1.1 The report to this Board on 14 June 2010 sought views on the operational and safety review undertaken by Jacobs. The purpose in seeking those views was to provide a steer on matters that should be progressed and matters that should not be progressed. This was to reduce the potential for unnecessary and abortive costs being incurred. **Annex 1** shows the scope of the review.
- 1.1.2 That report made clear the fact that many of the safety issues identified are an inevitable consequence of the urban design standards required to deliver the Bypass, due to the resistance encountered in trying to connect the proposed bypass to the M20 motorway and the then evolving Government policy on road building.

1.2 Overview and Nature of Works Proposed.

- 1.2.1 The operational and safety suggestions and recommendations from the Jacobs Review, fall into the following broad headings:-

Works to prohibit the right turn out of Castle Way

Major works to reconfigure the A228 south bound exit from the Junction 4 roundabout.

Traffic signal improvements at the A20/Castle Way junction

Minor adjustments to traffic signals at junctions along the bypass

Signing and lining improvements along the entire bypass

Various carriageway construction works

Provision of hard standings for maintenance vehicles

- 1.2.2 The steer from the Board was clearly against prohibiting the right turn out of Castle Way and as a consequence this proposal has not been progressed. However, there are other safety improvements that can be implemented at this junction and these are covered later in section 1.12 of this report.
- 1.2.3 Lack of funding restricts any consideration for the major works that would be necessary to reconfigure the exit onto the bypass from Junction 4. Also, in the absence of any desire to prohibit the right turn out of Castle Way, there would be little point in pursuing this.
- 1.2.4 Carriageway construction works are costly and disruptive due to their longer term traffic management requirement. Such works have therefore been avoided and, where possible, alternative white lining solutions are proposed.
- 1.2.5 Similarly, the construction work required to provide maintenance hard standings is difficult to justify given the funding situation.
- 1.2.6 The JTB were supportive in respect of signing and road lining proposals, especially the arrangements at the north and south Castle Way junctions. This work would reduce the apparent confusion for motorists travelling along the route and help to improve the perceived problems with all the junctions that were subject to this review.

Specific Areas of Study, Works Proposed and Estimated Cost

1.3 M20 Junction 4, Westbound Exit Slip / Circulatory –

1.3.1 The following work is not proposed :-

- Provide hard standing area for maintenance engineer's vehicle.

1.4 M20 Junction 4, A228 Northbound / Circulatory –

1.4.1 The following work is proposed:-

- Add repeater destination road markings on the A228 at the junction of Castle Way
- Add guidance line markings downstream of the A228 stop line and realign the hatch markings downstream of the traffic island
- Replace lane discipline signs with lane destination signs

- Remove centre lane markings extending back across the A228 (Tonbridge) entry
- Repeater destination road markings “A228 – ROCH” at the start of the centre lane markings on the circulatory approach
- Repeater destination road markings “A228 – TON” at the start of the A228 entry.
- Revise spiral markings for A228 Rochester bound traffic downstream of the circulatory stop line.

1.4.2 The budget estimate for this work is as follows:-

Signs/Lines	Construction	Traffic Signal	Jacobs Fee	Contingency	TOTAL
£11,500	n/a	n/a	£800	£1,845	£14,145

1.4.3 The following work is not proposed:-

- Provide hard standing area for maintenance engineer’s vehicle.

1.5 M20 Junction 4, Eastbound Exit Slip

1.5.1 The following work is proposed:-

- Provide spiral markings downstream of the circulatory stop line to effectively guide vehicles to the correct destination lanes

1.5.2 The budget estimate for this work is as follows:-

Signs/Lines	Construction	Traffic Signal	Jacobs Fee	Contingency	TOTAL
£1,200	n/a	n/a	£300	£225	£1,725

1.5.3 The following work is not proposed:-

- Installation of splay kerbs to ease access for maintenance vehicles

1.6 M20 Junction 4, A228 Southbound / Circulatory

1.6.1 The following work is proposed:-

- Extend the existing centre lane markings back from the M20 entry slip road and circulatory carriageway downstream of the junction to assist drivers in aligning themselves as the junction is traversed.

1.6.2 The budget estimate for this work is as follows:-

Signs/Lines	Construction	Traffic Signal	Jacobs Fee	Contingency	TOTAL
£1,150	n/a	n/a	£300	£220	£1,670

1.6.3 The following work is not proposed:-

- Installation of splay kerbs to ease access for maintenance vehicles

1.7 Castle Way North / A228

1.7.1 The following work is proposed to:-

- Modify the first advance direction sign in Castle Way and move the lower sign to show all destinations on their appropriate half of the sign
- Replace “(S)” and “(N)” road destination markings with “TON” and “ROCH”
- Add 2 No. yellow boxes in the live areas across the A228 southbound.
- Reduce the size and number of white/green lane signs (under review)
- Provide correct road markings for left turn signal controlled lane into Castle Way.

1.7.2 The budget estimate for this work is as follows:-

Signs/Lines	Construction	Traffic Signal	Jacobs Fee	Contingency	TOTAL
£4,500	n/a	n/a	£300	£720	£5,520

1.7.3 In addition it is proposed to:-

- Review the existing signal staging to remove any ambiguity between the separately controlled A228 ahead lanes and reconfigure the traffic signals
- Amend the mounting of the pedestrian head on pole 10 onto a curved cranked pole over the tactile paving to move the potential blind spot further away from the stop line.

1.7.4 This work is to be funded separately from the traffic signals term contract.

1.7.5 The following work is not proposed:-

- To provide hard standing area for maintenance engineer’s vehicle.

1.8 A228 / Park Road Roundabout

1.8.1 The following work is proposed to:-

- Replace incorrect road markings
- Remove and relocate the worn destination lane markings for “A228 – ROCH, M20” downstream of the Birling Road exit, to upstream.
- Add spiral lane markings for circulatory traffic heading to A228 southbound, with adjustments to existing centre lane markings as necessary.
- Add destination name markings associated with the existing arrow markings on the A228 approaches to the roundabout “BIRL”, “A228 –TON” and “A228 – ROCH”
- Refresh worn lining as appropriate

1.8.2 The budget estimate for this work is as follows:-

Signs/Lines	Construction	Traffic Signal	Jacobs Fee	Contingency	TOTAL
£2,300	n/a	n/a	£600	£440	£3,340

1.9 A228 / A20 Link Road

1.9.1 The following work is proposed:-

- Mark the outside lanes “A228 – ROCH-(M20”.
- Incorporate ROCH on the A228 northbound approach
- Provide an offside repeater direction sign on the link road approach to the A20
- Revise arrow markings on the approach to Castle Way
- A20(W)” to be changed to “A20 – W’HAM – W MALL”
- “A20(E)” to be changed to “A20 – E MALL – LEY”

1.9.2 The budget estimate for this work is as follows:-

Signs/Lines	Construction	Traffic Signal	Jacobs Fee	Contingency	TOTAL
£2,650	n/a	n/a	£400	£450	£3,500

1.9.3 In addition it is proposed to

- Provide tunnel or louvered signal hoods for A228 traffic to minimise ‘see through’ from adjacent traffic lanes. This work is to be funded separately from the traffic signals term contract.

1.10 A228 / Station Access

1.10.1 The following work is proposed:-

- Remove the temporary black on yellow sign at this junction.

1.10.2 The budget estimate for this work is as follows:-

Signs/Lines	Construction	Traffic Signal	Jacobs Fee	Contingency	TOTAL
£540	n/a	n/a	£140	£70	£750

1.11 A228 Tower View Roundabout

1.11.1 The following work is proposed:-

- Installation of signing warning of 'two way traffic' ahead and 'dual carriageway' ahead as appropriate.
- Install merge arrow markings for southbound drivers exiting the roundabout

1.11.2 The budget estimate for this work is as follows:-

Signs/Lines	Construction	Traffic Signal	Jacobs Fee	Contingency	TOTAL
£3,600	n/a	n/a	£400	£600	£4,600

1.11.3 In addition it is proposed to:-

- Carry out traffic signal head alignment and location adjustments. This work is to be completed under the traffic signals term maintenance and operations duties and is therefore funded separately.

1.12 A20 London Road Junction with Castle Way

1.12.1 The following work is proposed:-

- Replace the use of "(W)" and "(E)" on directional signs and road markings with destination names to be consistent with recommendations for the nearby A228/A20 link road junction.
- Provide lane type directional signs each side of the carriageway to complement road markings
- Remove the temporary yellow/black signs directing to Oxley Shaw
- Install white lining to narrow down the entry into, and exit from, Castle Way

1.12.2 The budget estimate for this work is as follows:-

Signs/Lines	Construction	Traffic Signal	Jacobs Fee	Contingency	TOTAL
£6,000	n/a	n/a	£600	£990	£7,590

1.12.3 In addition it is proposed to:-

- Complete the outstanding configuration and cabling works.

1.12.4 This junction was intended to form part of the coordinated network with the nearby A228/Link Road junction but at present the junction remains unfinished in signal equipment terms and as such effective coordination between the junctions is not possible.

1.12.5 Recent changes have been made to make the junction more efficient but significant controller configuration and re-cabling works are required to bring this junction in line with the rest of the network. The latest estimate to complete these works is £26,248. The works are proposed to be completed this financial year with funds provided from the Traffic Signals strengthening and protection budget.

1.12.6 The following work is not proposed:-

- Carriageway and kerbing construction works to narrow the entry into Castle Way to one lane
- Carriageway and kerbing construction works to narrow the exit from Castle Way to either one or two lanes

1.12.7 This is referred to in (1.2.4) and (1.12.1) above, where a cheaper option is available that would save approximately £25,000

1.13 Discussion

1.13.1 The total estimated cost for the proposed signing and lining work for which approval is sought is £42,840.

1.13.2 To carry out the construction works for maintenance vehicle hard standings would add a further £29,500 to the cost.

1.13.3 To carry out the carriageway and kerbing construction work required in narrowing at the A20/Castle way Junction would add a further £25,000 to the cost (although there would be a saving of approximately £3,000 for not doing the white line alternative).

1.13.4 An estimated £26,248 will also be spent from the traffic signals strengthening and protection budget in completing the signalling work at the A20/Castle Way junction.

1.13.5 Other more minor traffic signal modifications are being carried out under the traffic signals term maintenance budget for an estimated cost of £3,500.

1.13.6 Jacobs are in the process of approaching Ringway with a package of the signing and lining work referred to above, with a view to obtaining a firm quotation for the work. Subject to the views of this Board, the work will be put in hand at the earliest opportunity due to the seasonal nature of the lining work.

1.14 Funding

1.14.1 The original funding for the Bypass and Junction 4 improvements has long been fully used up. Any additional funding has to come from the County Council's own resources. Extreme frugality is therefore necessary in using the limited amount of funding that Kent Highways Services have been able to make available.

1.14.2 There is considerable comfort that the works proposed in this report, including any other costs associated with risk, fees etc., will not exceed the funding that has already been allocated for this work.

1.15 Summary

1.15.1 The estimated value of works proposed to be carried out is:-

- Signing and Lining - £42,840
- A20/Castle Way (traffic signals strengthening and protection budget) - £26,248
- Minor Signal Adjustments (signals term contract) - £3,500

1.16 Legal Implications

1.16.1 Not applicable

1.17 Financial and Value for Money Considerations

1.17.1 As contained in the report.

1.18 Risk Assessment

1.18.1 Not applicable

1.19 Recommendations

1.19.1 That the report be noted and that approval be granted to carry out the works proposed.

Background papers:

M20 Junction 4 and A228 Leybourne and West Malling
Bypass – Operational and Safety Review

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