



**COLTHROP VILLAGE – THATCHAM**

**PROPOSED RAIL BRIDGE CONSTRUCTION**

**BUDGET ESTIMATE**

**COLTHROP VILLAGE – THATCHAM**  
**PROPOSED RAIL BRIDGE CONSTRUCTION**

The attached Budget Estimate has been prepared in the absence of any other information from details contained upon Stuart Michael Associates Ltd concept drawing number 5010.600 dated February 2019 and is for the construction of a railway bridge spanning the live Great Western Railway line close to Thatcham Railway Station.

The rail bridge is intended to carry a 6 metre wide highway and 3 metre footway/cycleway across the twin overhead electrified Great Western Railway line and the adjacent Kennet and Avon Canal.

It is intended for the bridge to have a span of 110 metres with a minimum height of 7 metres above the centre line of the twin rail tracks.

The 110 metre span deck is to comprise precast concrete U beams with a reinforced insitu concrete deck and parapets carrying the 6 metre wide highway and 3 metre wide footway/cycleway. AN H4A 1.8 metre high bridge parapet safety barrier is to be affixed to both the Eastern and Western parapets.

3 No. piled reinforced insitu concrete under piers will carry the bridge deck which will be seated on the Northern and Southern piled reinforced insitu concrete abutments.

There are to be two approach embankments comprising the Northern embankment which is to be a precast concrete panel faced reinforced earth system embankment and a Southern approach embankment which is to be a 1 in 3 earth embankment for which is assumed suitable material will need to be imported.

Prior to commencement of bridgeworks the existing northern watercourse will have to be diverted into a 3.00 x 2.00 metre precast concrete box culvert followed by the construction of a temporary highway diversion.

In preparing this Budget Estimate it has been assumed that works adjacent and above the live rail track will be restricted to night time and weekend working in order to cause minimal disruption to the rail network.

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**BUDGET ESTIMATE SUMMARY**

A.	Principal Contractors Preliminaries – provision of necessary site supervisory staff, accommodation and welfare, security, traffic management works, head office overheads etc.	3,213,000.00
B.	Construction of Southern Embankment inclusive of provision of imported fills, drainage, parapets and highway construction – Refer Appendix No. 1	4,290,500.00
C.	Construction of Northern Embankment inclusive of pre-cast concrete panel faced reinforced wall system, imported fills, drainage, parapets and highway construction – Refer Appendix No. 2	1,825,400.00
D.	Construction of railway overbridge inclusive of the North and South abutments, 3 No. intermediate piers, bridge deck, parapets, deck drainage and highway works – Refer Appendix No. 3	6,085,700.00
E.	Diversion of northern side existing water course, construction of box culvert and construction of temporary access road	<u>1,089,000.00</u>
	<b>TOTAL</b>	<b><u>£16,503,600.00</u></b>

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**APPENDICES**

**COLTHROP VILLAGE – THATCHAM**  
**PROPOSED RAIL BRIDGE CONSTRUCTION**  
**BUDGET ESTIMATE**

**APPENDIX NO. 1** : Construction of Southern Embankment

**APPENDIX NO. 2** : Construction of Northern Embankment

**APPENDIX NO. 3** : Construction of Rail Overbridge

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**APPENDIX NO. 1**

**B. Construction of Southern Embankment**

i.	Embankment starter layer	1,195,500.00
ii.	Construction of embankment with imported suitable material	2,147,000.00
iii.	Highway works inclusive of highway drainage, embankment toe drainage, surfacing and installation of H4A 1.8 metre high safety barrier and run off/on vehicle restraint system	730,500.00
iv.	Temporary works comprising construction of temporary haul road, hardstandings, wheel washing facilities etc.	<u>217,500.00</u>

**CARRIED TO COLLECTION**      **£4,290,500.00**

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**APPENDIX NO. 2**

**C. Construction of Northern Embankment**

i.	Pre-cast concrete panel faced reinforced earth wall system	1,279,400.00
ii.	Highway works inclusive of highway drainage, embankment toe drainage, surfacing and installation of H4A 1.8 metre high safety barrier and run off/on vehicle restraint system	412,000.00
iii.	Temporary works comprising hardstandings, crane platform, scaffolding etc.	<u>134,000.00</u>

**CARRIED TO COLLECTION**                      **£1,825,400.00**

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**APPENDIX NO. 3**

**D. Construction of Rail Overbridge**

1.	Span – 110 metres	
2.	Width – 12 metres	
i.	Construction of 3 No. piled reinforced insitu concrete piers	1,493,000.00
ii.	Construction of 2 No. piled reinforced insitu concrete abutments	1,022,700.00
iii.	Construction of 110 lin metre bridge deck complete with highway surfacing, deck joints, parapets and drainage	1,580,000.00
iv.	Temporary works comprising piling platforms, temporary access roads, crane platforms, hardstandings, falseworks, scaffolding etc.	<u>1,990,000.00</u>
<b>CARRIED TO COLLECTION</b>		<b><u>£6,085,700.00</u></b>