

**From:** Barry Colford  
**Sent:** 10 January 2012 10:44  
**To:** [REDACTED]  
**Subject:** Rephrasing of FETA 3 year Capital Budget Bill,

Once we have deducted the cost of the committed schemes over the next three years (viaduct bearing replacement, main cable inspection, anchorage investigation and M9 Spur and other residuals) we can carry out the following as yet non-committed schemes on the Capital Plan over the next three years within the remaining allocated funding. These non – committed schemes are:

- Main Cable Dehumidification Monitoring
- Main Cable Acoustic Monitoring
- Main Towers Cathodic Protection (Piers)
- South Anchorage Regeneration
- Truss End Links Remedial Works
- Cable Band Bolt Replacement
- Suspended Span Gantry Improvement
- Dismantle Dropped Object Canopy
- Suspended Span Under Deck Access
- Improvements to Deck Half Joints
- Vehicle Replacement
- Resurface Main Span South (patching )
- Abutment Approach Barriers

There are a number of schemes that we will not be able to carry out and they are:

- Painting of the Suspended Span Truss
- Painting of the Viaduct Box Girders
- Resurfacing of the Main Span Southbound
- Full Replacement of Truss End links
- Strengthening Works to the Suspended Span Truss
- Main Tower Wind Barriers/Impact Strengthening

All of the non-committed schemes that we wish to carry out over the next three years are essential for the long term structural integrity of the bridge except for the Vehicle Replacement, South Anchorage Regeneration and Abutment Approach Barriers. The Abutment Approach Barriers are essential for the safety of users to provide an adequate restraint for vehicles adjacent to steep embankments and stairs. The South Anchorage Regeneration is important for storage of essential equipment ( for the two bridges) and Vehicle Replacement is required for operational efficiency.

The deck half joint trial could be delayed until next year or the year after but we do have a valid competitive tender which is just about to expire. Re-tendering will obviously cost time and resources. I am keen to establish whether or not we can solve this long standing issue which is getting worse each year. The step at the half joints is now over 20mm at carriageway level at a number of locations and is getting progressively worse. It is one of our biggest maintenance problems and requires a continual and significant resource on nightshift to try to re-level and shim up these joints ( the carriageway needs to be closed ).

The work is continuous as the temporary fix lasts for between 6 and 12 months. There are 768 of these joints so it is a significant problem. With regard to long term damage to the structure – it is hard to quantify. There is little doubt it is shortening the life of the surfacing and is likely to be the main cause of the increasing failure of the King Posts ( these are light vertical members that run from the top of the truss to the bottom, and prevent excess deflection of the bottom truss). Replacement of these King Posts is a difficult and hazardous job, and is becoming a more frequent maintenance problem. From the users point of view the increasing step does cause issues with ride quality, especially if you happen to be sitting over the back axle of a bus! We do get a lot of adverse comment on this issue.

If re-phasing can be achieved it will also allow us to install the Abutment Approach Barriers. These will replace the temporary concrete barriers which were installed once the risk was highlighted and have been in place for around 5 years. This work is essential with regard to minimising risk to users. We would also commence work on the refurbishment of the suspended span gantries. These gantries are now over 15 years old and need a safer drive and access system. We are also planning to add another gantry as there are only two to service the three spans and the procedure now required to transfer between spans, using a barge, is so onerous that installing a third gantry, to eliminate the transfer process, is now more economical.

If re phasing is not possible then we would have to condense three years work into two and with our current staff resources this would present difficulties.

Hope this is useful

Regards,

Barry