

Edinburgh Tram Project

Assessment of Extension of Time Entitlement (21 August 2009)

(The reader is cautioned that this set of presentation slides contains selective extracts from contract clauses. In the interest of brevity and to facilitate discussion, a précis of the full wording has often been used. For this reason, the wording used in these slide should not be relied upon in forming opinion on any of the Contract provisions and mechanisms discussed herein.)

EXPERTS IN CONSTRUCTION PLANNING PROGRAMMING
AND THE COMMERCIAL TRANSACTION



Pertinent Infraco obligations re. time and associated costs

- Mutual co-operation and apply expertise (clause 6.1 – Partnering)
- Approach all Permitted Variations on a collaborative and Open Book Basis (clause 6.3.1)
- Take reasonable steps to mitigate any foreseeable losses and liabilities (clause 6.3.5)
- Take all reasonable steps to manage, minimise and mitigate all costs (clauses 6.3.6 & 7.5.5)
- Progress the Infraco Works with due expedition and in a timely and efficient manner without delay, to achieve timeous delivery and completion ... (clause 6.1 – Programme)



Contract provisions for EoT

- Clause 64 – Relief Event
- Clause 65 – Compensation Events
 - Includes:
 - **tie** breach
 - late delivery of SDS design and SDS breach
- Clause 80 – **tie** Change
 - **tie** Change
 - Mandatory **tie** Change
 - Notified Departures



Relief Events

- Clause 64
 - serve notice as soon as practicable, and in any event within 20 business days
 - full details of the nature of the event
 - the date of occurrence and likely duration
 - likely effect upon the Programme or adverse effects on performance of obligations
 - mitigation measures adopted and why unsuccessful
 - any acceleration or other measures which Infracore could take to mitigate the effects of such delay and an estimate of the costs thereof
 - if continuing effect and unable to determine
 - provide reasons, interim particulars and further particulars as soon as reasonably practicable.



Relief Events (continued)

- Clause 64 (continued)
 - Demonstrate to the reasonable satisfaction of **tie** that:
 - Infraco could not reasonably have avoided such occurrence or consequences
 - the Relief Event is the direct cause of the delay
 - Infraco is using reasonable endeavours to perform its obligations
 - **tie** shall, in assessing any delay, EoT or relief:
 - not take into account any event or cause of delay which is caused by negligence, default or breach by Infraco
 - take into account events only if Infraco establishes to the satisfaction of **tie** that it has used its reasonable endeavours to adjust the order and sequence in which the Infraco proposes to execute the Infraco Works to minimise the effects of the delay



Relief Events (continued)

- **Clause 64** (continued)
 - The Infraco shall not be entitled to EoT in respect of any failure by Infraco to:
 - identify any long lead times
 - identify any enabling works required in order to commence
 - manage interface with CEC and Approval Bodies
 - Identify any instruction which are required from **tie** in order to progress the Works in accordance with the Programme, providing ...
 - **tie** shall, in assessing any delay, EoT or relief:
 - not take into account any event or cause of delay which is caused by negligence, default or breach by Infraco
 - take into account events only if Infraco establishes to the satisfaction of **tie** that it has used its reasonable endeavours to adjust the order and sequence in which the Infraco proposes to execute the Infraco Works to minimise the effects of the delay



Compensation Events

- Clause 65
 - If a Compensation Event :
 - is the direct cause of a delay in achievement of the issue of a Certificate of Sectional Completion and/or;
 - directly and adversely affects Infraco's ability to perform its obligations
 - causes Infraco to incur cost beyond that reasonably anticipated but for the Compensation Eventthen Infraco shall be entitled to EoT
 - the Infraco's sole right to EoT is as set out in Clause 65



Compensation Events (continued)

- Clause 65 (continued)
 - To obtain EoT Infraco must as soon as practicable, and in any event within 20 Business Days:
 - notify **tie** of claim with full details of the nature of the CE, date of occurrence and likely duration
 - likely effect of delay on the Programme or the adverse effects on performance
 - details of the costs or losses
 - mitigation measures adopted and why unsuccessful
 - any acceleration or other measures Infraco could take to mitigate delay etc. and an estimate of the costs thereof;
 - providing that where CE has continuing effect or Infraco is unable to determine whether the effect of the CE will actually cause delay etc., Infraco shall submit:
 - a statement to that effect with reasons, together with interim written particulars; and
 - further written particulars until the actual delay caused etc. is ascertainable, ...
 - and



Compensation Events (continued)

- Clause 65 (continued)
 - Demonstrate to the reasonable satisfaction of **tie** that:
 - Infraco could not reasonably have avoided such occurrence or consequences by steps which they might reasonably be expected to have taken;
 - the CE is the direct cause of the delay, etc.
 - Infraco is using reasonable endeavours to perform its obligations under this Agreement.



Compensation Events (continued)

- Clause 65 (continued)
 - **tie** shall review notifications and submissions and shall notify Infraco within 20 Business Days:
 - its agreement or otherwise on whether a CE has occurred;
 - its agreement or otherwise regarding the EoT etc. sought and where **tie** does not agree such matters, **tie**'s assessment in relations to Infraco's entitlement;
 - In the event that Infraco has complied with its obligations under Clause 65.2.2 (provision of full details):
 - the key dates shall be postponed
 - Infraco shall be given relief from performance of its obligations as shall be reasonable for such a Compensation Event and Infraco shall revise the Programme in accordance with Clause 60.2 to 60.5



Compensation Events (continued)

- Clause 65 (continued)
 - In the event that the information required by Clause 64.2 (typo? 65.2?) is provided after the dates referred to in that clause, Infraco will not be entitled to any relief in respect of or during the period for which the information is delayed.
 - Infraco shall notify **tie** if at any time it receives or becomes aware of any further information relating to the CE, giving details to the extent it is new or renders previous submission materially inaccurate or misleading.



Compensation Events (continued)

- Clause 65 (continued)
 - **tie** shall, in assessing any delay, EoT, etc.:
 - not take into account any event or cause of delay, etc. which is caused by any negligence, default or breach of contract or breach of statutory duty of Infracore;
 - take into account an event or cause etc. **only if** and to the extent that **Infracore establishes to the reasonable satisfaction of tie** that Infracore has used its reasonable endeavours to adjust the order and sequence in which Infracore proposes to execute the Works in such a manner as to **minimise the effects of the delay** in, or if possible to avoid altogether any delay in, the progress of the Works **and mitigate the costs.**



Compensation Events (continued)

- Clause 65 (continued)
 - Infraco shall not be entitled to EoT in respect of any failure by Infraco to:
 - identify any long lead times
 - identify any enabling works required in order to commence
 - manage interface with CEC and Approval Bodies
 - the Compensation Event is the direct cause of the delay
 - identify any instructions which are required from **tie** in order to progress the Works in accordance with the Programme



Notification of other delays

- Clauses 64.9 (Relief Events) & 65.10 (Compensation Events)
 - If the Works are delayed in circumstances other than those entitling Infraco to EoT for Relief Events or Compensation Events, Infraco shall inform **tie** at the earliest opportunity and shall give an estimate of the likely effect upon the Programme. In such circumstances, Infraco at its own expense shall take such acceleration measures as are necessary to achieve the requirements of the Programme.



tie Change

- Clause 80 – **tie** Change applies to;
 - **tie** Change – **tie** instructed change
 - Mandatory **tie** Change – as noted in the Contract
 - Notified Departures – facts or circumstances differ in any way from the Base Case Assumptions save to the extent caused by a breach of contract by Infraco, an Infraco Change or a Change in Law



tie Change

- Clause 80 Process
 - **tie** Notice of Change
 - Notified Departure = Mandatory **tie** Change = deemed issue of “**tie** Notice of Change”
 - Infraco Estimate
 - Provide within 18 business days, or advise within 5 business days that more time is required to prepare the estimate.
 - **tie** and Infraco discuss and agree the issues set out in the Estimate as soon as reasonably practicable
 - If the parties cannot agree the contents of the Estimate, either party pay refer the Estimate to the DRP.



tie Change (continued)

- Clause 80 (continued)
 - The Estimate shall include the opinion of Infraco on:
 - any requirements for relief from obligations under the Agreement
 - any impact on the Programme and requirement for EoT
 - the proposed method of delivery
 - proposals to mitigate delay
 - any increase or decrease in any sums due
 - Infraco shall include in the Estimate **evidence demonstrating** that:
 - Infraco has used **all reasonable endeavours to minimise any increase in costs** and maximise any reduction of costs
 - Infraco has investigated how to mitigate the impact of the tie Change
 - the tie Change will, where relevant, be **implemented in the most cost effective manner.**



tie Change (continued)

- Clause 80 (continued)
 - Infraco shall not commence work in respect of a **tie** Change until instructed through receipt of a **tie** Change unless otherwise directed by tie.
 - Where an Estimate has been referred to the DRP, but it is deemed by **tie** (acting reasonably) that the proposed tie Change is urgent and/or has a potential significant impact on the Programme, tie may instruct Infraco to carry out the proposed tie Change prior to the determination or agreement of the Estimate by issuing a tie Change Order to that effect.



tie Change – Notified Departures

- Clause 80.24
 - removes the provisions of clause 80.19 from the assessment of Notified Departures
- Clause 80.19 – Restrictions on Entitlement to Relief for **tie Change**
 - Infraco shall not be entitled to EoT etc. in respect of any tie Notice of Change affecting the construction of the Works ... if and to the extent that it would be reasonable to expect Infraco to have prevented or materially reduced the requirement for such tie Change, given the information known to Infraco at the time



Infraco recent EoT submissions

- Entitlement Programme
 - “as-planned” impacted with actual/forecast dates for MUDFA, IFC, etc.
 - No meaningful attempt at mitigation
 - Infraco seeking EoT for all delay to date on a global basis. (No culpability on its part)
 - Submitted under Clause 6o
- Proposed Rev. 02 Programme
 - An alternative to the Entitlement Programme prepared on a similar basis but with some mitigation.
 - Submitted under Clause 6o
- MUDFA 8
 - “as-planned” programme impacted only with what are claimed to be the actual and projected MUDFA dates as shown on Rev.08 of the MUDFA programme.
 - Submitted under Clause 8o



Sectional Completion Dates

	Current (Rev.01)	Entitlement Programme	EoT 2 claim (Rev. 02)	MUDFA 8	Comment
A	1 June 2010	15 June 2011	23 June 2011	13 Dec. 2010	Completion of the Depot so that it may receive trams.
B	1 July 2010	18 July 2011	16 Aug. 2011	10 Jan. 2011	Section B date is 28 days after the Section A date, assuming sufficient track is laid away from the Depot.
C	10 Mar. 2011	24 July 2012	5 April 2012	22 Nov. 2011	Completion of all Infracore construction works other than the final two phases of Picardy Place.
D	6 Sept. 2011	20 Jan. 2013	2 Oct. 2012	20 May 2012	Section D date is 6 months after the Section C date.

Significant programme constraints

- TM constraints as per the Contract
- Embargos as per the Contract
- Max. 3 No. track gangs
- Max. 2 No. OLE gangs
- No re-ordering or re-scheduling if it causes Infraco to incur any additional cost
- No additional resources (if it causes Infraco to incur any additional cost?)
- Infraco consider this any action that incurs costs to be acceleration and therefore requires tie instruction.



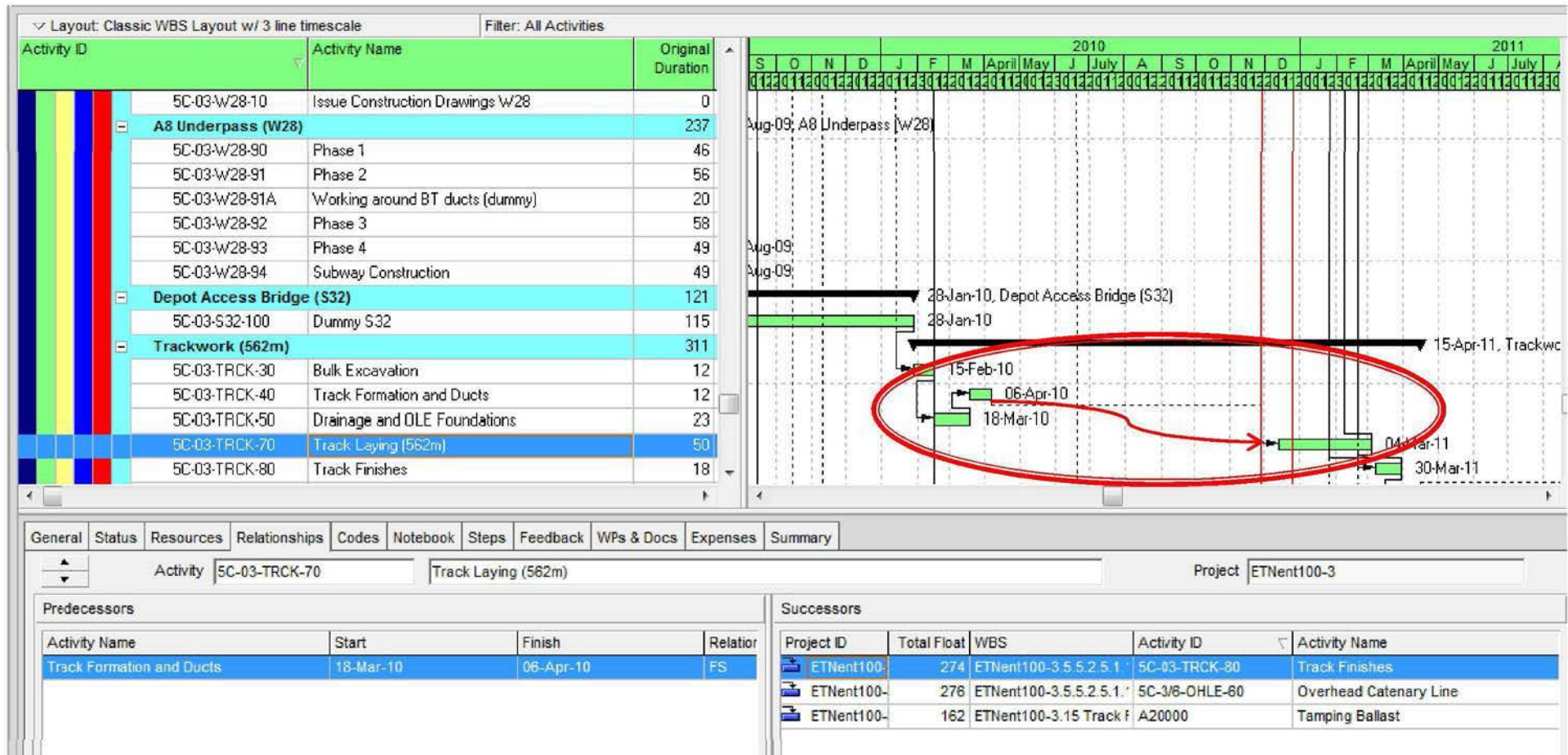
Assessment of MUDFA 8 Claim

EXPERTS IN CONSTRUCTION PLANNING PROGRAMMING
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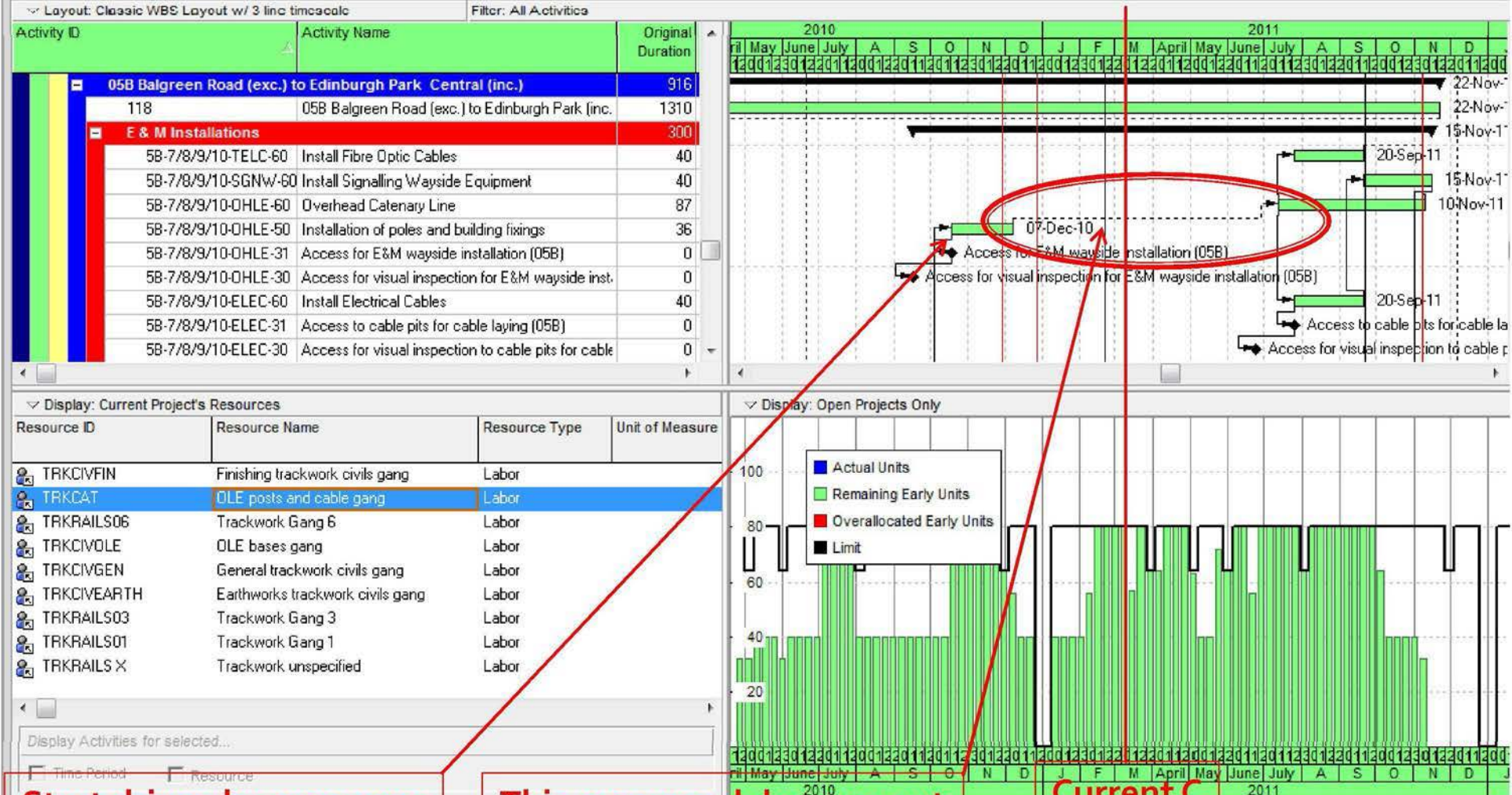
Resource driven programme



Physical logic links "Track formation and ducts" to "Track Laying" in a finish to start relationship
 "Track Laying" appears to be delayed by another constraint – availability of resources.



Resource driven programme

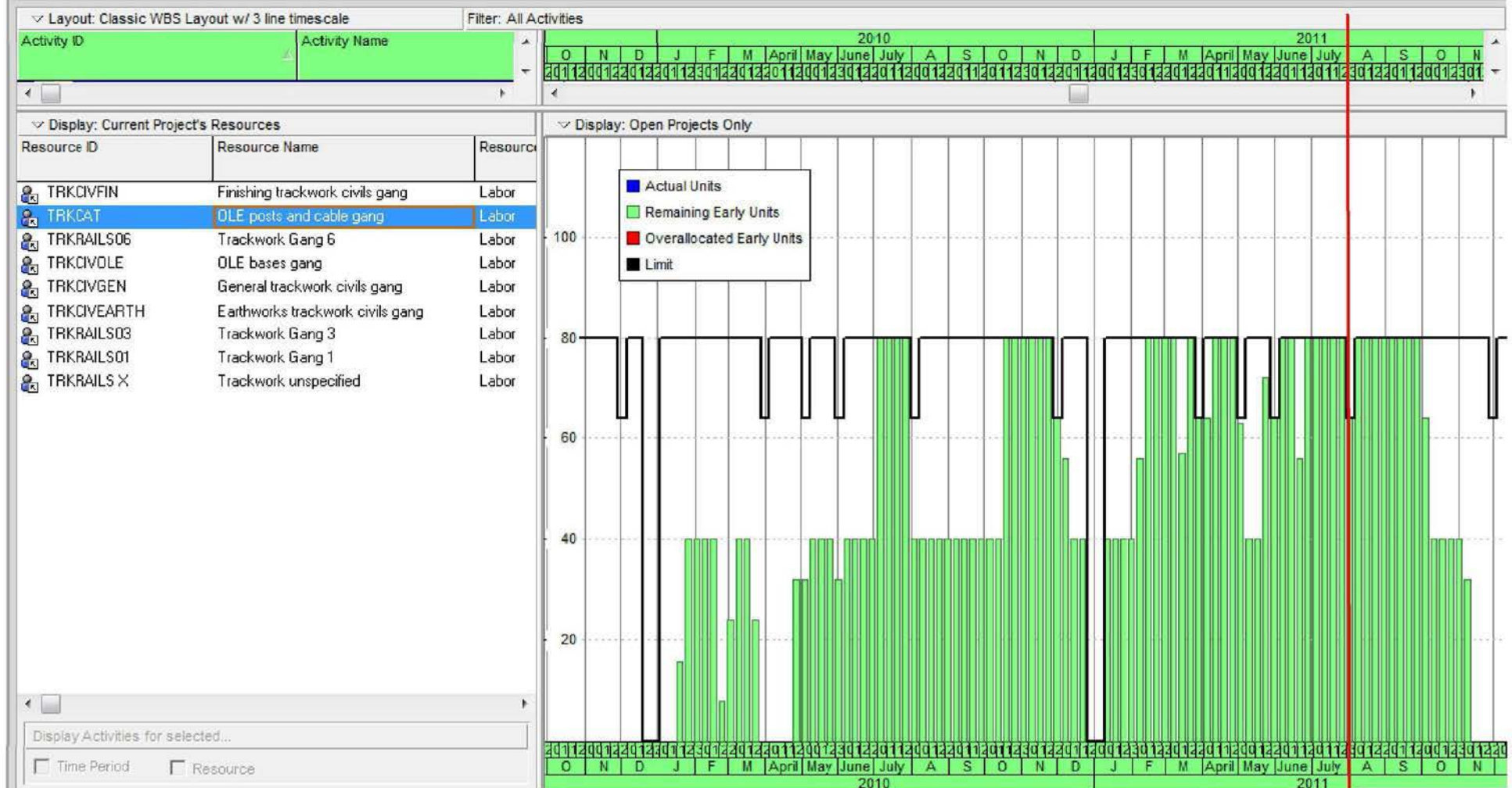


Start driven by resources from other sections

This resource delay was not on the unmitigated version

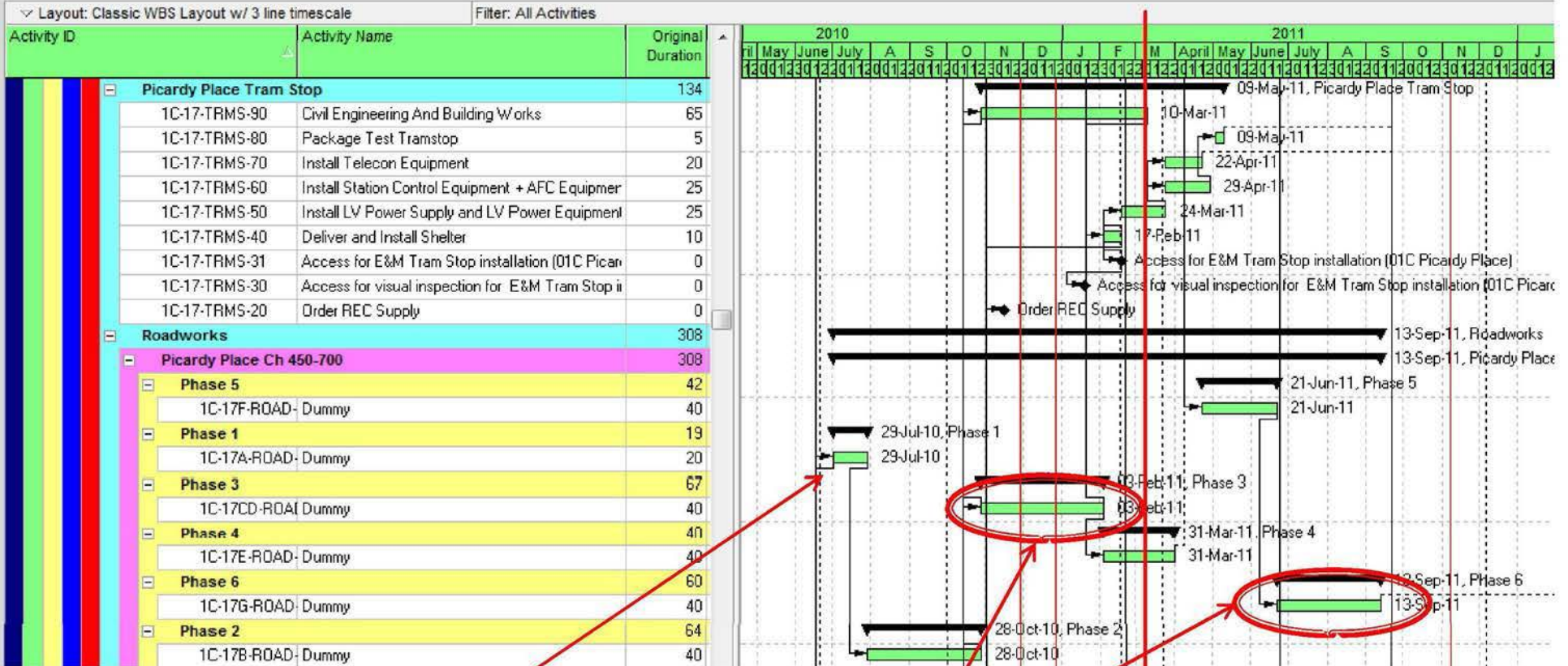
Current C Date

Resource driven programme – OLE gangs



Current C
Date

Embargo driven programme



Phase 1 driven by completion of Shandwick Pl. TM

Phases 3 & 6 extended by "Festival" embargos

Current C Date



MUDFA 8 Assessment

	Current (Rev.01)	MUDFA 8 Claim	tie unmitigated assessment	tie mitigated assessment	Comment
A	1 June 2010	13 Dec. 2010	138 days delay 17 Oct. 2010	78 days delay	Mitigation of 30 days saving on building works plus 30 days overlap of equipment installation
B	1 July 2010	10 Jan. 2011	138 days delay	78 days delay	Section B date is 28 days after the Section A date, assuming sufficient track is laid away from the Depot.
C	10 Mar. 2011	22 Nov. 2011	151 days delay 3 Aug.2011	128 days delay	23 days mitigation as Infraco claim appears to over-estimate MUDFA completion date. Leith Walk is the primary driver of delay.
D	6 Sept. 2011	20 May 2012	151 days delay	128 days delay	Section D date is 6 months after the Section C date.

Assessment of EoT₂

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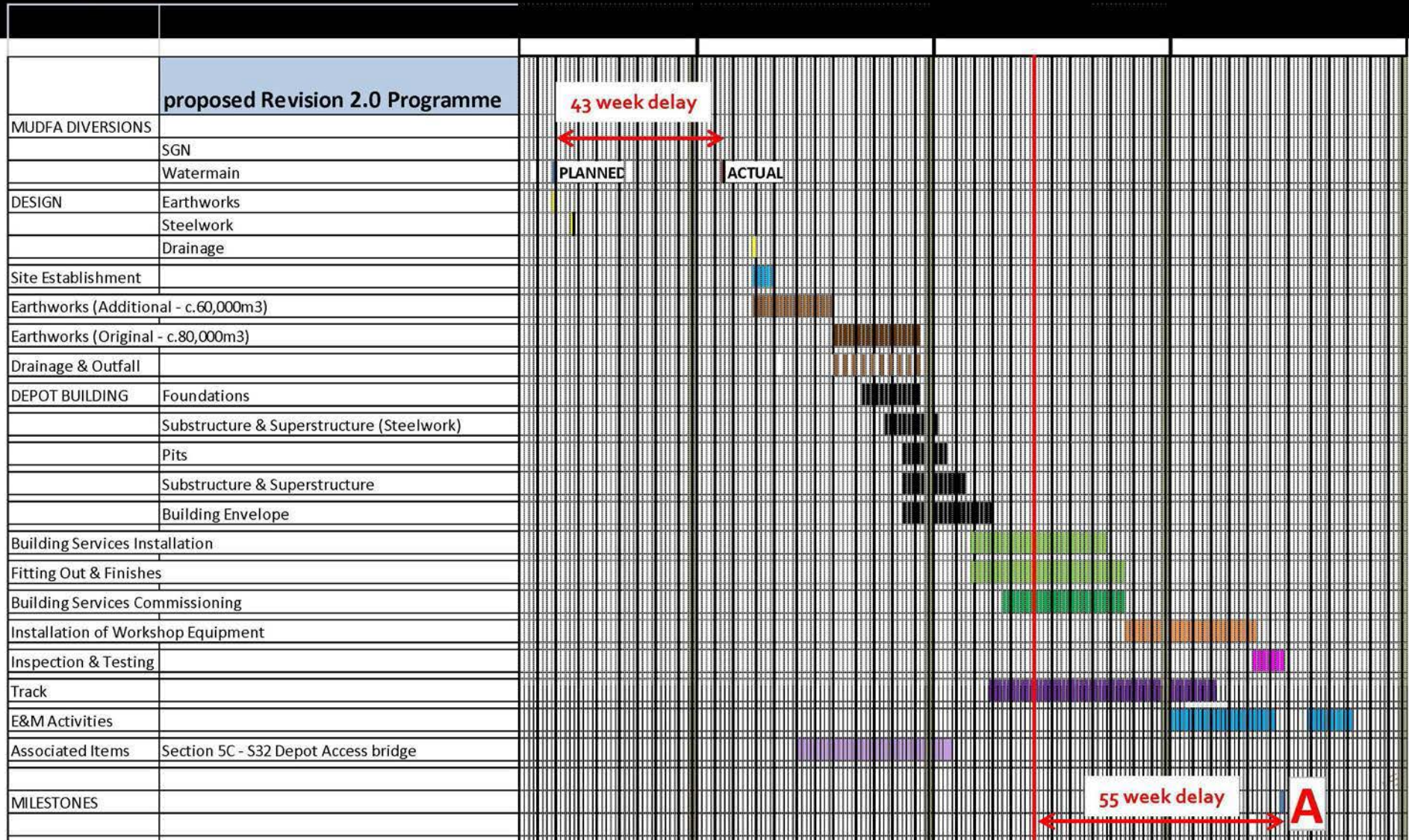
Section 6 – Gogar Depot

current Programme (“Rev. 01”)

		2008	2009	2010
Revision 1.0 Programme				
MUDFA DIVERSIONS				
	SGN			
	Watermain			
DESIGN				
	Earthworks			
	Steelwork			
	Drainage			
Earthworks				
Drainage & Outfall				
DEPOT BUILDING				
	Foundations			
	Substructure & Superstructure (Steelwork)			
	Pits			
	Substructure & Superstructure			
	Building Envelope			
Building Services Installation				
Fitting Out & Finishes				
Building Services Commissioning				
Installation of Workshop Equipment				
Inspection & Testing				
Track				
E&M Activities				
Associated Items	Section 5C - S32 Depot Access bridge			
MILESTONES				

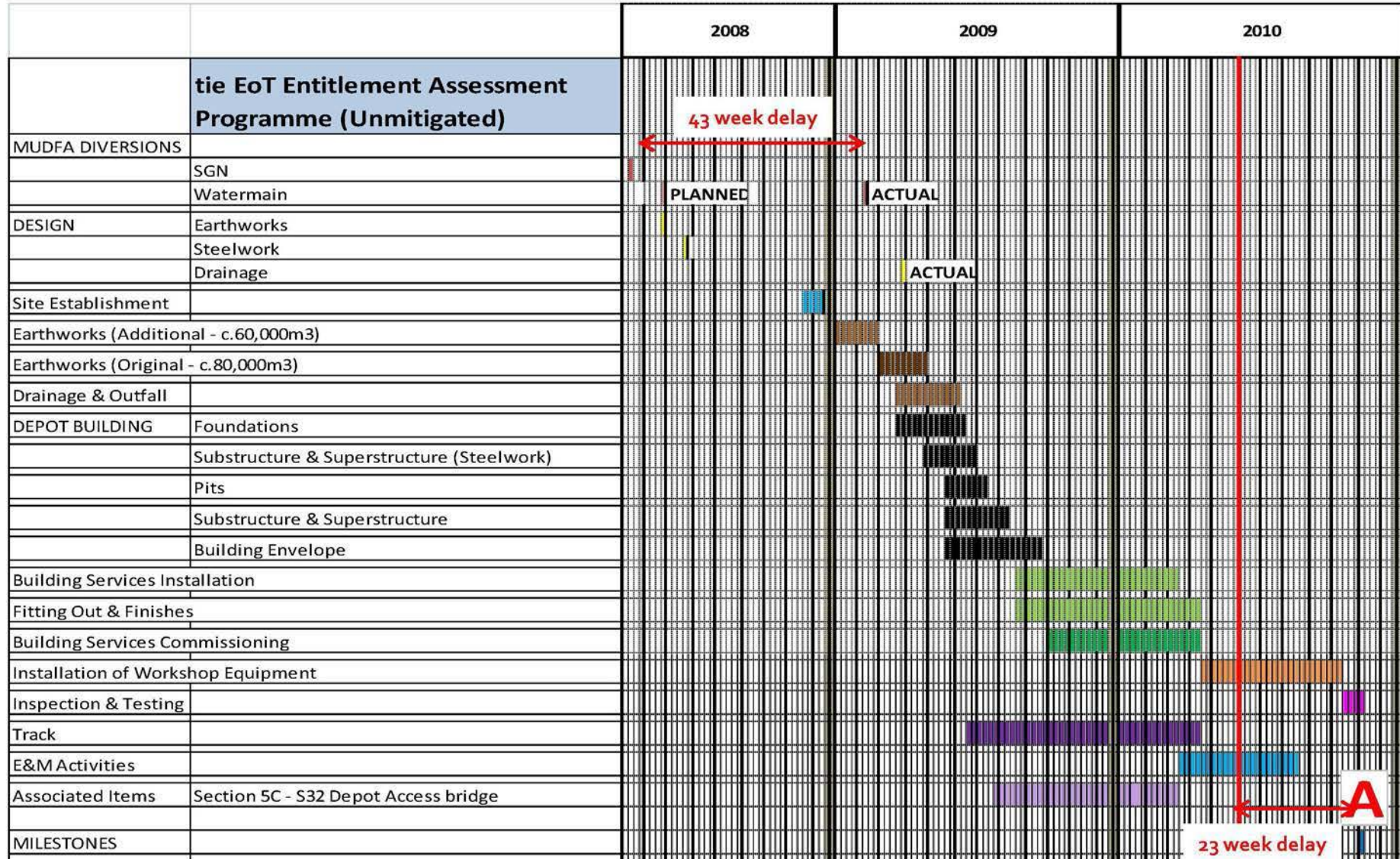
A

Section 6 – Gogar Depot proposed Programme (“Rev. 02”)



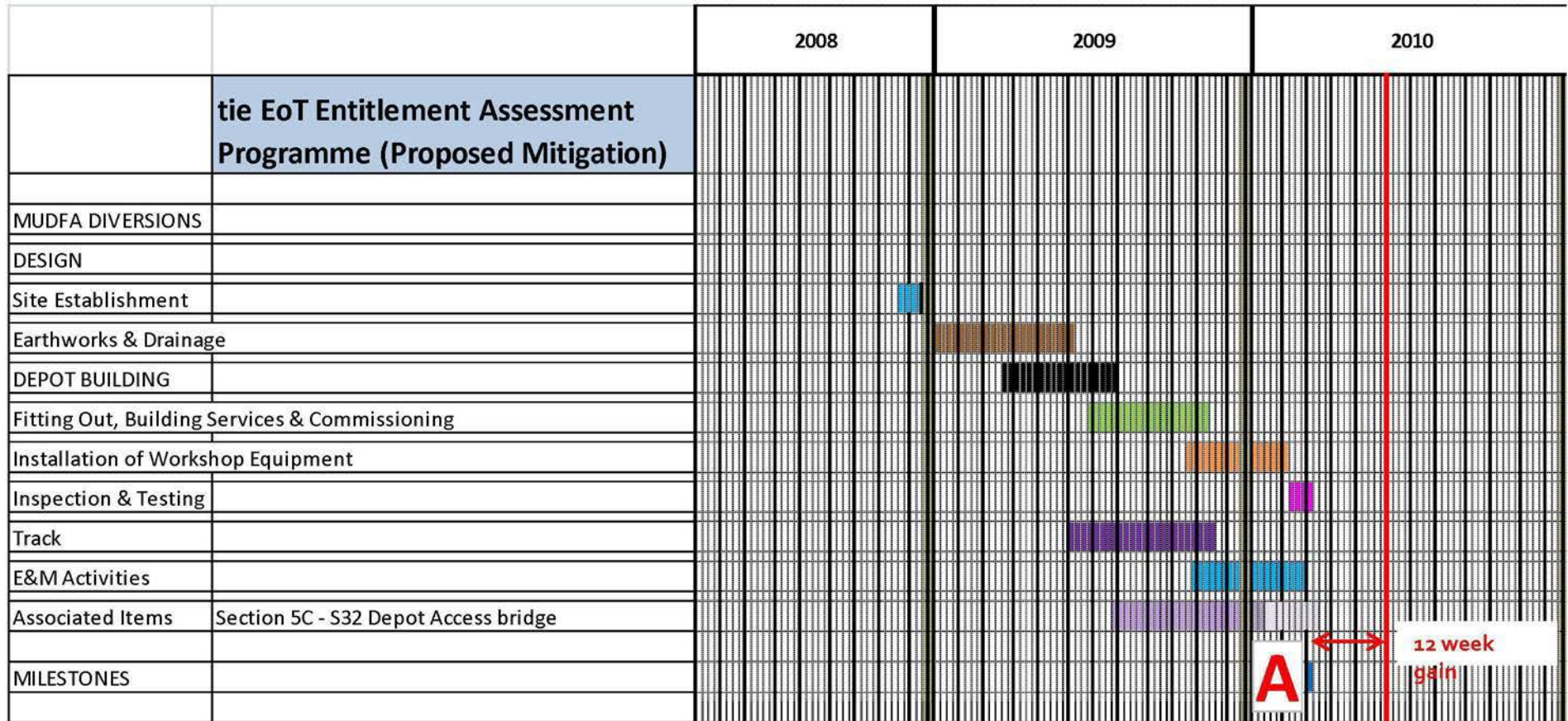
Section 6 – Gogar Depot

EoT2 Assessment - Unmitigated

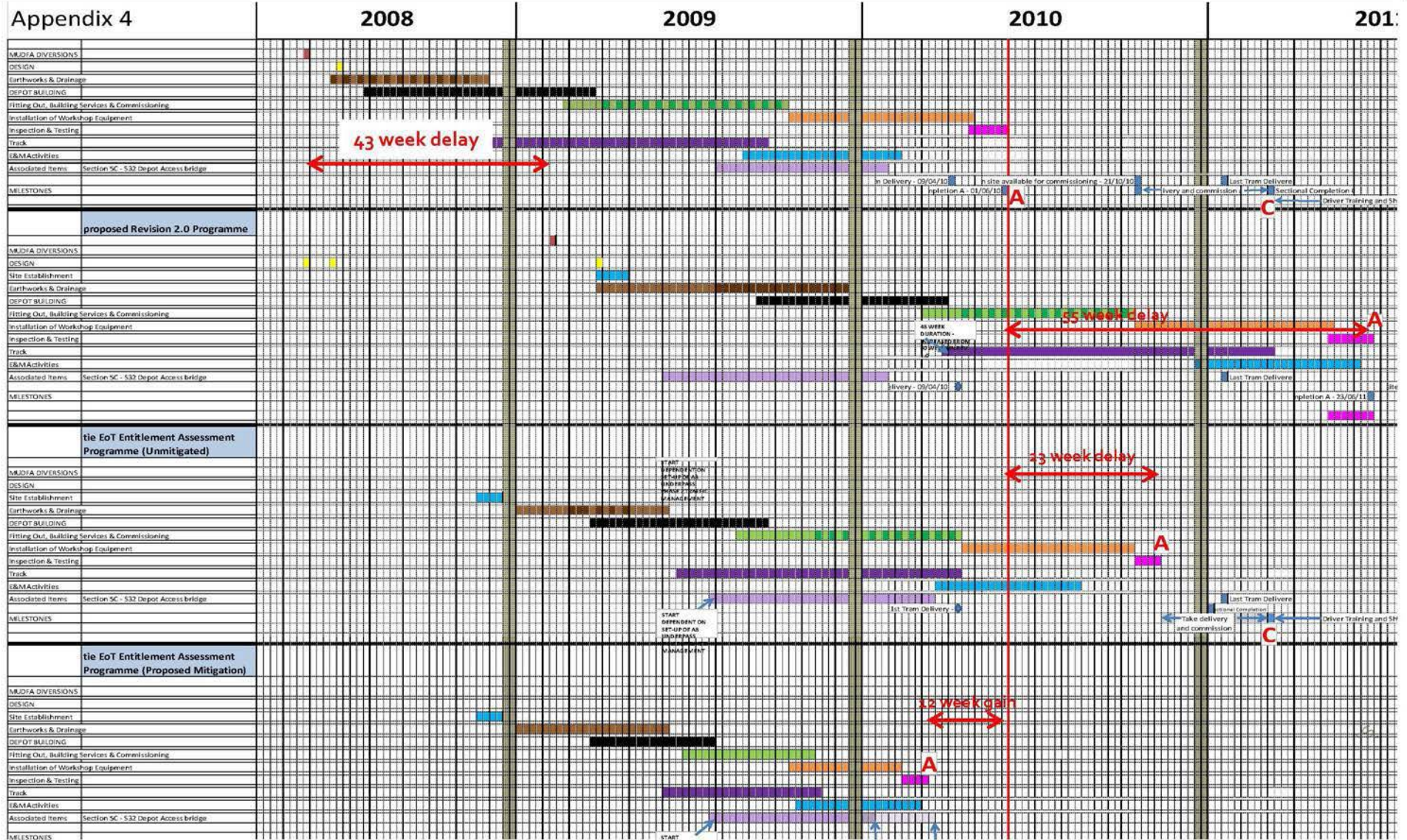


Section 6 – Gogar Depot

EoT2 Assessment - Mitigated



Section 6 – Gogar Depot Summary



Section 7 – Tram Test Track

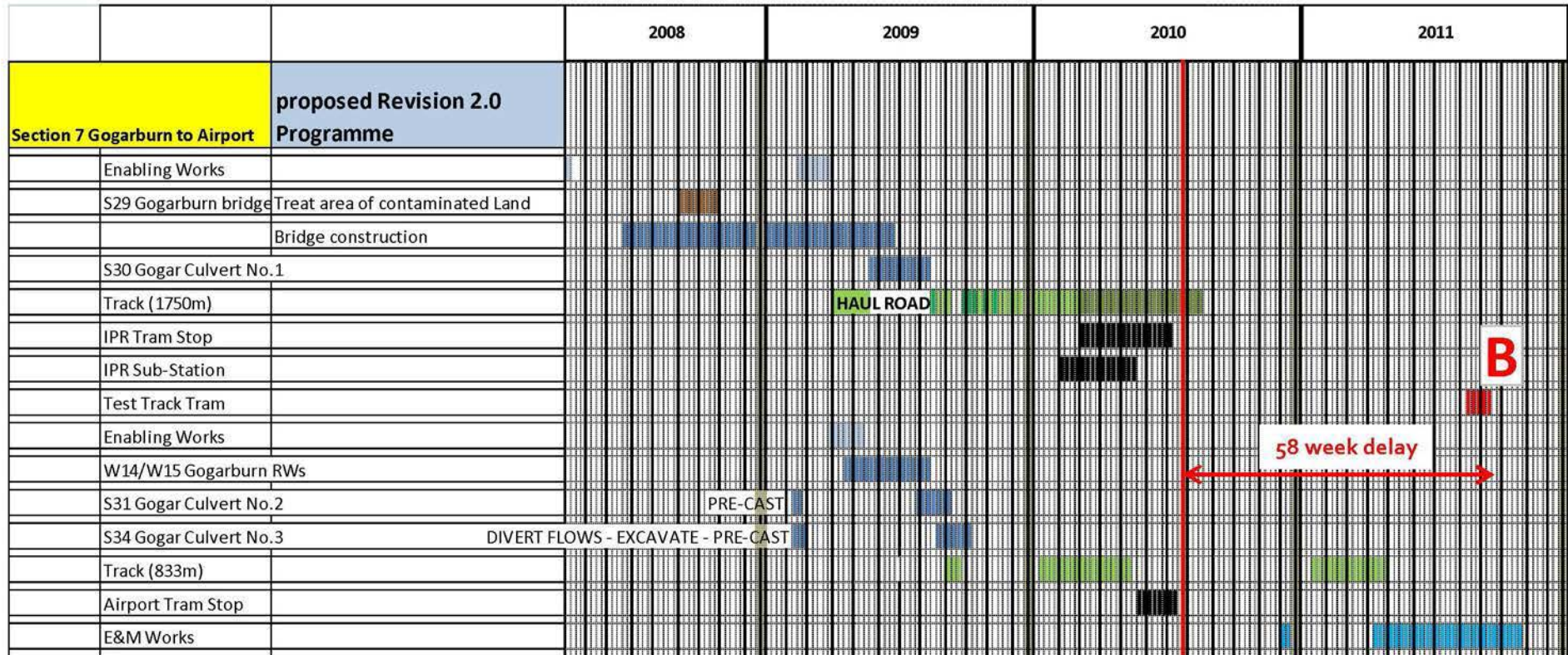
current Programme (“Rev. 01”)

		2008	2009	2010
Section 7 Gogarburn to Airport		Revision 1.0 Programme		
MUDFA DIVERSIONS		PLANNED		
DESIGN				
	S29 Gogarburn bridge	ACTUAL		
	S30 Culvert No.1	ACTUAL	PLANNED	
	Track	PLANNED		ACTUAL
	IPR TS	PLANNED		ACTUAL
	W14/15 Gogarburn RWs	PLANNED		ACTUAL
	S31 Culvert No.2	ACTUAL	PLANNED	
	S34 Culvert No.3	PLANNED	ACTUAL	
	AIR TS	PLANNED		ACTUAL
	Enabling Works			
	S29 Gogarburn bridge	Treat area of contaminated Land		
		Bridge construction		
	S30 Gogar Culvert No.1			
	Track (1750m)			
	IPR Tram Stop			
	IPR Sub-Station			
	Test Track Tram			
	Enabling Works			
	W14/W15 Gogarburn RWs			
	S31 Gogar Culvert No.2			
	S34 Gogar Culvert No.3			
	Track (833m)			
	Airport Tram Stop			
	E&M Works			

B

Section 7 – Tram Test Track

proposed Programme (“Rev. 02”)



Section 7 – Tram Test Track

EoT2 Assessment - **Unmitigated**

		2008	2009	2010
Section 7 Gogarburn to Airport		tie EoT Entitlement Assessment Programme - Unmitigated		
Enabling Works				
S29 Gogarburn bridge	Treat area of contaminated Land			
	Bridge construction			
S30 Gogar Culvert No.1				
Track (1750m)				
IPR Tram Stop				
IPR Sub-Station				
Test Track Tram				
Enabling Works	Site clearance and vegetation			
W14/W15 Gogarburn RWs				
S31 Gogar Culvert No.2				
S34 Gogar Culvert No.3				
Track (833m)				
Airport Tram Stop				
E&M Works				

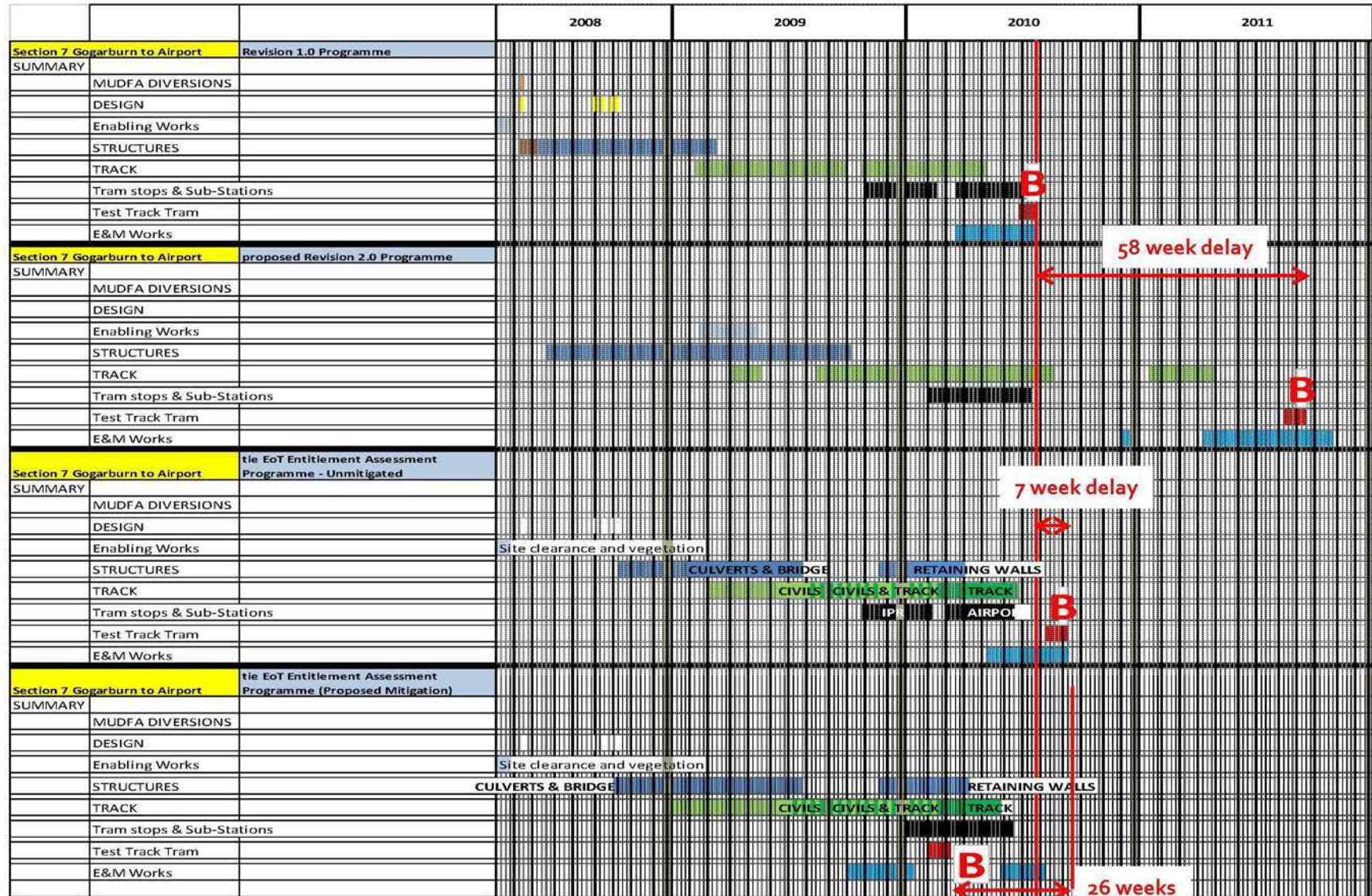


Section 7 – Tram Test Track

EoT2 Assessment - **Mitigated**

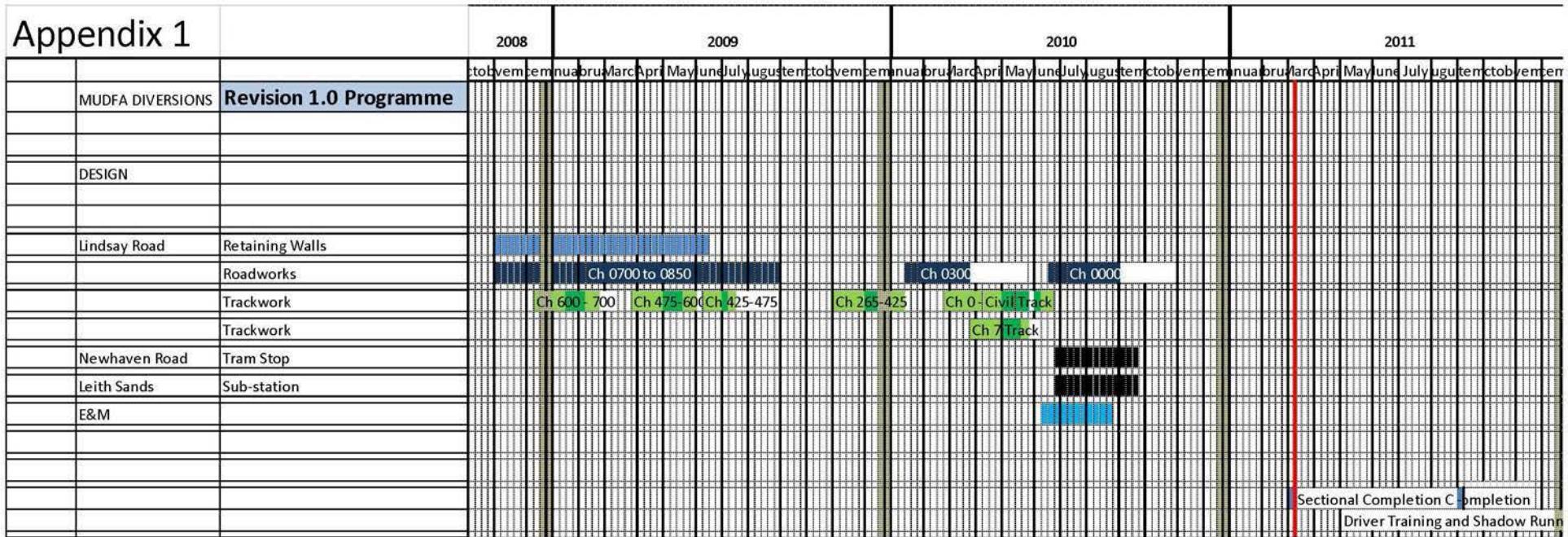


Section 7 – Tram Test Track – Summary



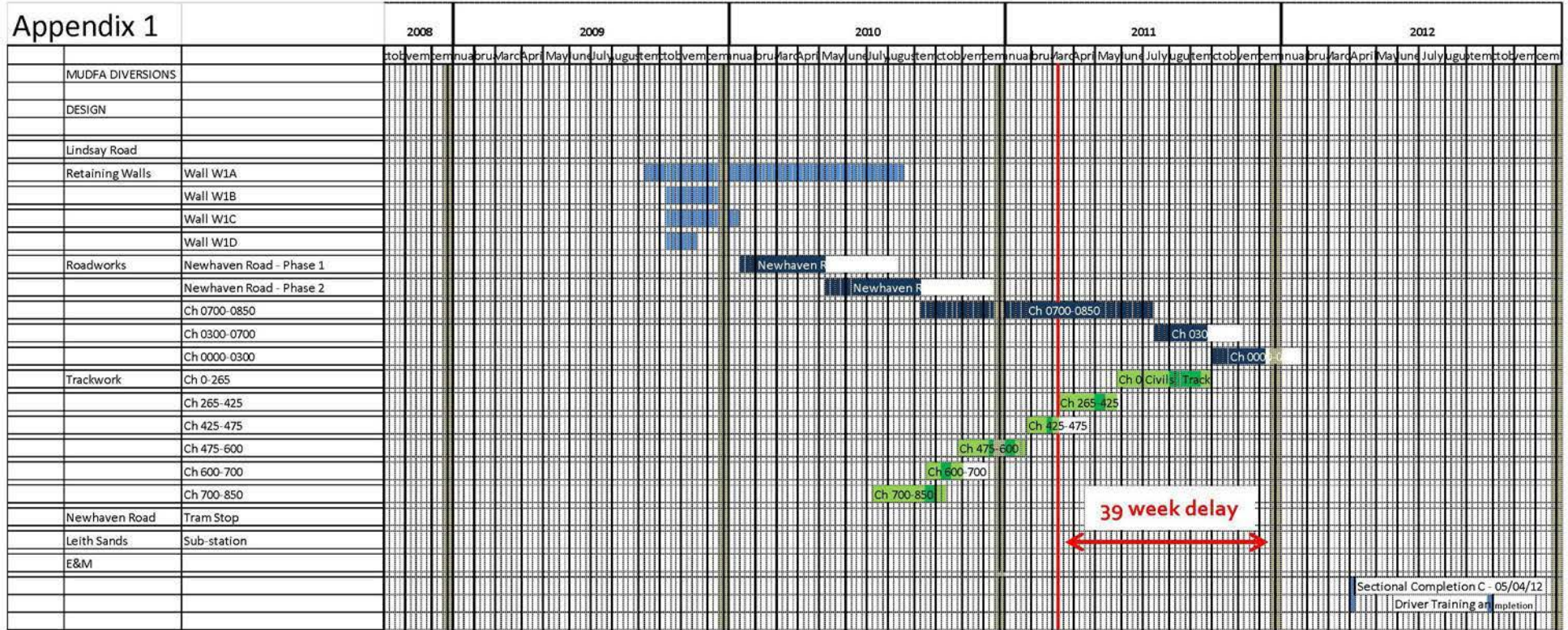
Section 1a – Lindsay Road

current Programme (“Rev. 01”)



Section 1a – Lindsay Road

proposed Programme ("Rev. 02")



Section 1a – Lindsay Road

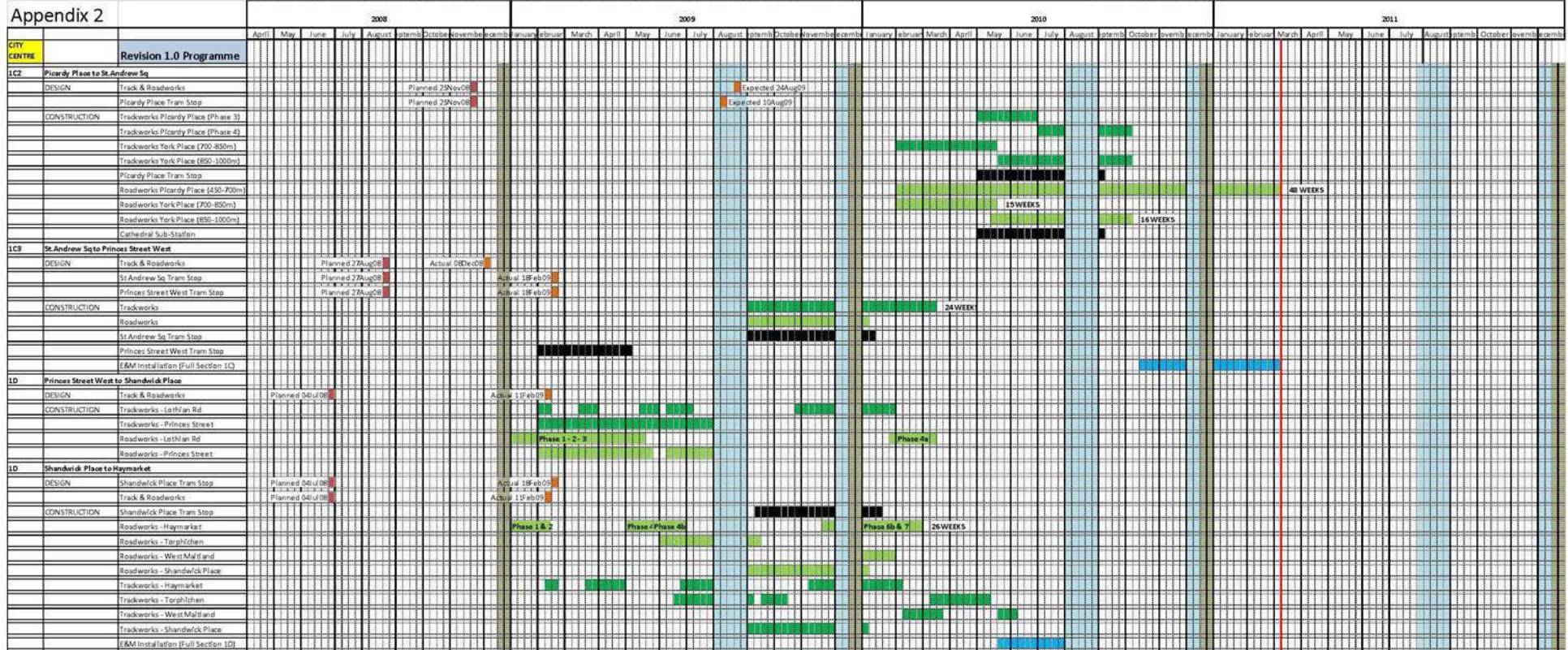
tie EoT2 Assessment – (To be updated)

Appendix 1		2008		2009					2010					2011														
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
MUDFA DIVERSIONS																												
DESIGN																												
Lindsay Road	Enabling works for TM																											
	Install TM and divert traffic																											
	Excavation (initial)																											
	Lower utilities																											
	Excavation (balance)																											
	Sub-base and drainage																											
	Kerbing, gullies, etc..																											
	Surfacing																											
	Finishes																											
Old Port Road																												
	Wall 1a																											
	Wall 1b																											
	Wall 1c																											
	Wall 1d																											
Track																												
E&M																												
Newhaven Tram Stop																												
MILESTONES																												

Driver Training and Sectional Com

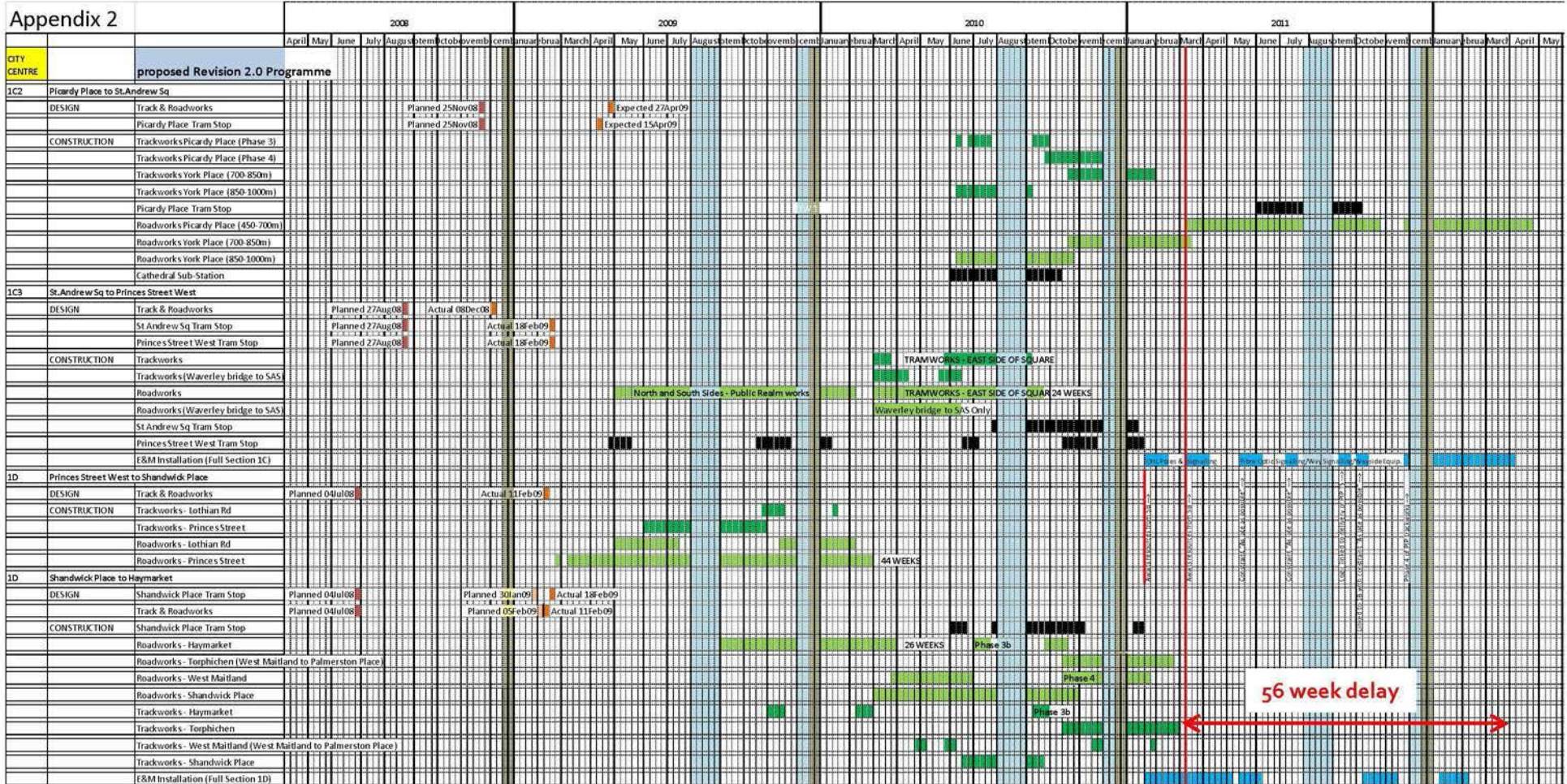


Section 1d – City Centre current Programme (“Rev. 01”)



Section 1d – City Centre proposed Programme (“Rev. 02”)

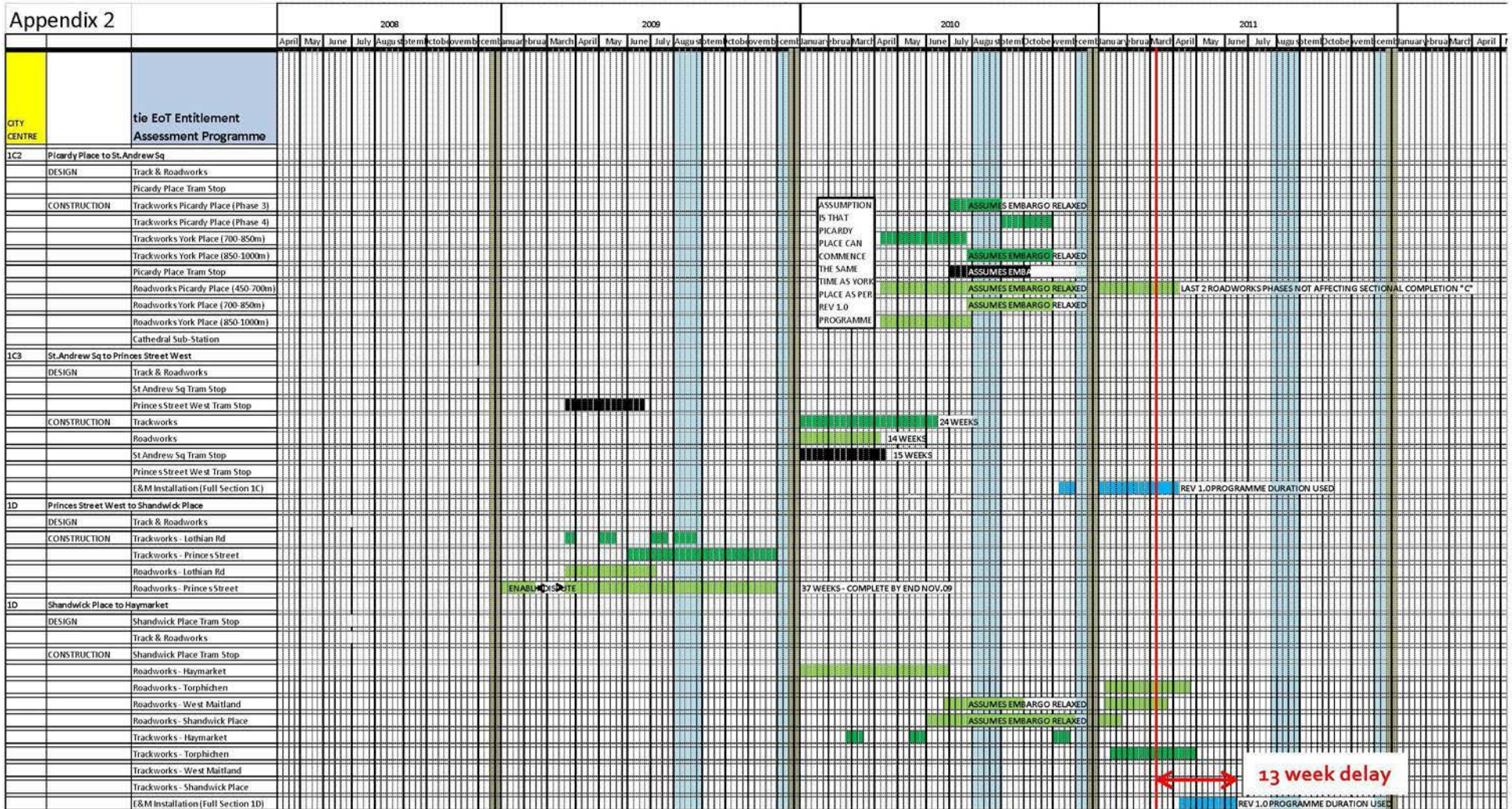
Appendix 2



Section 1d – City Centre

tie EoT2 Assessment – (conditional on relaxations)

Appendix 2



EoT2 Assessment

	Current (Rev.01)	EoT 2 claim (Rev. 02)	tie unmitigated assessment	tie mitigated assessment	Comment
A	1 June 2010	23 June 2011	161 days delay 30 Oct. 2010	71 days delay	Mitigation of 60 days saving on building works plus 30 days overlap of equipment installation.
B	1 July 2010	16 Aug. 2011	161 days delay	71 days delay	Section B date is 28 days after the Section A date, assuming sufficient track is laid away from the Depot.
C	10 Mar. 2011	5 April 2012	392 days delay	91 days delay	Assumes mitigation by relaxation of contract constraints and Infracore imposed resource limitations. May also require some acceleration.
D	6 Sept. 2011	2 Oct. 2012	392 days delay	91 days delay	Section D date is 6 months after the Section C date.

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(The reader is cautioned that this set of presentation slides contains selective extracts from contract clauses. In the interest of brevity and to facilitate discussion, a précis of the full wording has often been used. For this reason, the wording used in these slide should not be relied upon in forming opinion on any of the Contract provisions and mechanisms discussed herein.)

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