From: John Reilly [jjreils@attglobal.net]

Sent: Saturday, February 07, 2009 11:02 AM

To: Grotefendt, Amy (Consultant); White, John; Paananen, Ron; Dye, Dave

Cc: Harvey Parker; Van Ness, Kristy (Consultant)

Subject: Re: Successful Bored Tunnel One-Pager

Dave - Harvey is working on this with Hatch-Mott-McDonald and accessing an update to tunnel programs and also relevant data we have collected over the last decade or so and from our cost forum in Seattle in May 2001 - e.g the LA Metro cost vs. budget completion data. As you might expect relevant data that will stand up to scrutiny (successful bored tunnel projects - early/pe/engineering estimates versus actuals) is scarce and there are often wide ranges (and different statements) reported. Since we were working on "the problem" we were looking at projects with cost overruns (Flyvbjerg's data is also targeted to identifying the problem and is also "meta-data" - i.e. it looks right but we can't substantiate the details).

Often it is the total program reported (*) - e.g. the Boston Harbor program - Initial budget between \$4-4.9, final \$3.65, \$3.8b at completion; Boston Red Line North initial range around \$1b, delivered about \$700, Boston Southwest Corridor construction budget \$750, delivered \$743. These 3 programs contained tunnels of one form or another. The Boston MetroWest tunnel is one I can get data from McBride and will do so.

(*) Committee studies also have this problem - incomplete data that is not sufficient for the question. I was on a TCRP panel that worked on the topic "Managing the capital costs of large transit...." That data / report also found this problem You can see the report at:

http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_w31.pdf

Harvey - have you also checked with PB re this question? How about Howard Handewith? Let's discuss again Monday morning with Theresa at AWV.

Dave - your guidance will be appreciated - give me or Harvey a call.

Regards, John Reilly
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---- Original Message -----

From: Dye, Dave

To: Paananen, Ron; White, John; Grotefendt, Amy (Consultant); Reilly, John

Cc: Van Ness, Kristy (Consultant)

Sent: Friday, February 06, 2009 4:37 PM **Subject:** Successful Bored Tunnel One-Pager

Hey all - looked at our latest renditions of the tunnel boring 1-pager and it does a good job of explaining how technology and diameters have increased but I didn't see the "scorecard" showing successful bored tunnel projects - early/pe/engineering estimates versus actuals -- lots of questions about industry's ability to perform and we need to search that out a bit and include the data in our material (and get to jennifer) - thanks>

-dave