



# Bilfinger Industrial Services Inc.



**BILFINGER**

Bilfinger is a leading construction and maintenance provider in the United States, Europe and the Middle East. We aim to enhance the efficiency of assets, lower operational costs and help our customers achieve their sustainability goals. Our portfolio covers the entire value chain - from concept to construction, start-up to maintenance, reliability, and specialty services for industrial facilities.



25<sup>TH</sup> ANNUAL



25<sup>TH</sup> LCI CONGRESS  
OCTOBER 24-27, 2023

# Cracking the Cost Model Code

Sean Melvin, Bilfinger Industrial Services

**25 YEARS OF LEARNING: SUPERCHARGE YOUR LEAN JOURNEY IN THE MOTOR CITY**

October 25, 2023





# Cracking the Cost Model Code

- We didn't have a tool that effectively captured pre-con costs
- So, we built a functional cost model using TVD principles
  - Capture costs through the project life cycle
  - Generate savings for the customer





# Key Elements of Our Cost Model

- Conceptual Phase
  - Organize loosely defined scope
  - Capture assumptions & risks
  - Generate a total project target cost
- Validation Phase
  - Estimate continuously as an input to design
  - Monitor contingency balance
- Construction Phase
  - Track actual spending versus estimates
  - Integrate change order costs
  - Monitor contingency balance



# Cost Model Example

- Lets take a closer look at an actual cost model...

EXAMPLE PROJECT															
OS #	WBS #	Status	Scope Title	EI #	Contractor	Funding Cost	+/- (vs. Fund)	Validation Cost	+/- (vs. Fund)	Target Cost	Total Value of Change Orders	Target + CO Costs	P&C	Predicted minus P&C	Predicted Cost
	N/A		ENGINEERING			31,250	0	31,250	0	31,250	0	31,250	0	31,250	31,250
	GB0006.4071		CONST MANAGEMENT			18,920	0	18,920	0	18,920	0	18,920	0	18,920	18,920
	GB0006.4072		CAPITAL			442,813	-13870	428,943	-15230	427,583	7106	434,689	104,352	327,368	431,720
Civil/Structural						329,178	-10290	318,888	-13145	316,033	7106	323,139	61,512	258,658	320,170
5		F	Structural Install	TBD	Contractor A	104,143	0	104,143	0	104,143	0	104,143	0	104,143	104,143
4		V	Structural Procurement	TBD	Contractor A	76,500	-3060	73,440	-3060	73,440	0	73,440	0	73,440	73,440
2	GB0006.407202	O	Excavations	5#1	Contractor B	70,565	-13040	57,525	-19820	50,745	0	50,745	15,780	34,965	50,745
3	GB0006.407204	T	Foundations	7#2	Contractor C	31,970	10215	42,185	14140	46,110	0	46,110	0	46,110	46,110
1	GB0006.407201	C	Pilings	6#4	Contractor D	46,000	-4405	41,595	-4405	41,595	7106	48,701	45,732	0	45,732
Mechanical						90755	-5100	85,655	-3060	87,695	0	87,695	42,840	44,855	87,695
6		F	HVAC Install		Contractor E	44,855	0	44,855	0	44,855	0	44,855	0	44,855	44,855
7	GB0006.407203	O	HVAC Procurement		Contractor E	45,900	-5100	40,800	-3060	42,840	0	42,840	42,840	0	42,840



# How can you apply this tomorrow?

- Learn the TVD process
- Initiate a cost model (contact Sean for a template)
- Expect Changes - Continuous Improvement





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**In the spirit of continuous improvement, we would like to remind you to complete this session's survey! We look forward to receiving your feedback.**

# Contact Us

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Thank you for attending this presentation. Enjoy the rest of the 25<sup>th</sup> Annual LCI Congress!