

REFERENCES

- Abdel Aziz, A., & Nabavi, H. (2014). *Unsolicited Proposals for PPP Projects: Private Sector Perceptions in the USA*. 1349–1358. <https://doi.org/10.1061/9780784413517.138>
- Adnan, H., & Rosman, M. R. (2018). Risk management in Turnkey projects in Malaysia. *WSEAS Transactions on Business and Economics*, 15, 35-43.
- Ahsan, K., & Gunawan, I. (2010). Analysis of cost and schedule performance of international development projects. *International Journal of Project Management*, 28(1), 68–78. <https://doi.org/10.1016/J.IJPROMAN.2009.03.005>
- Aigbavboa, C., Oke, A., & Mojele, S. (2016). *Contribution of value management to construction projects in South Africa*. <https://ujcontent.uj.ac.za/esploro/outputs/9910436207691>
- Algama, P. (2024). Ensuring Good Governance in Procurement in Sri Lanka. (H. Raza, Ed.) The World Bank Group.
- Ameyaw, E. E., Chan, A. P. C., & Owusu-Manu, D. G. (2017). A survey of critical success factors for attracting private sector participation in water supply projects in developing countries. *Journal of Facilities Management*, 15(1), 35–61. <https://doi.org/10.1108/JFM-06-2016-0027/FULL/XML>
- Ameyaw, E. E., Chan, A. P. C., Owusu-Manu, D.-G., Edwards, D. J., & Dartey, F. (2017). A Fuzzy-Based Evaluation of Financial Risks in Build–Own–Operate–Transfer Water Supply Projects. *Journal of Infrastructure Systems*, 23(4), 04017033. [https://doi.org/10.1061/\(ASCE\)IS.1943-555X.0000390](https://doi.org/10.1061/(ASCE)IS.1943-555X.0000390)
- Atnaw, S. M., Singh, L., Hagos, F. Y., & Yousuf, A. (2016). Road Construction Equipment Management: A Case Study on Selected Industry. *International Journal of Engineering Technology and Sciences*, 3(1), 91-97.
- Bakhshi, P., & Touran, A. (2014). An overview of budget contingency calculation methods in construction industry. *Procedia Engineering*, 85, 52-60.
- Bennett, F. L. (2003). The Management of Construction: A Project Lifecycle Approach. *The Management of Construction: A Project Lifecycle Approach*, 56–87. https://www.academia.edu/9820952/The_Management_of_Construction_A_Project_Lifecycle_Approach_Malestrom
- Bernstein, D., Gonzalez, C., Heikal, M., & Al-Rashed, A. A. (2016). Oilfield Build Own Operate BOO Projects - A Good Execution Strategy for the Current Low Oil Price Environment. *Society of Petroleum Engineers - Abu Dhabi International Petroleum Exhibition and Conference 2016, 2016-January*. <https://doi.org/10.2118/183412-MS>
- Brook, M. (2016). Estimating and tendering for construction work. Taylor & Francis.
- Callaway, M., Hastings, S., & Moeller, A. (2018, March). Applicability of fixed-price contracts for successful cost control. In 2018 IEEE Aerospace Conference (pp. 1-16). IEEE.

- Camacho, F. T., Rodrigues, B. C. L., & Vieira, H. M. M. (2017). Unsolicited Proposals in Infrastructure - Lessons from Brazil and Chile. *The Emerald Handbook of Public-Private Partnerships in Developing and Emerging Economies: Perspectives on Public Policy, Entrepreneurship and Poverty*, 559–578. <https://doi.org/10.1108/978-1-78714-493-420171021/FULL/XML>
- Carpenter, N., & Bausman, D. C. (2016). Project Delivery Method Performance for Public School Construction: Design-Bid-Build versus CM at Risk. *Journal of Construction Engineering and Management*, 142(10), 05016009. [https://doi.org/10.1061/\(ASCE\)CO.1943-7862.0001155](https://doi.org/10.1061/(ASCE)CO.1943-7862.0001155)
- Cheali, P., Gernaey, K. V., & Sin, G. (2015). Uncertainties in early-stage capital cost estimation of process design - A case study on biorefinery design. *Frontiers in Energy Research*, 3(FEB), 112719. <https://doi.org/10.3389/FENRG.2015.00003/ABSTRACT>
- Chege, L. W., & Rwelamila, P. D. (2001). PRIVATE FINANCING OF CONSTRUCTION PROJECTS AND PROCUREMENT SYSTEMS: AN INTEGRATED APPROACH. *CIB World Building Congress*.
- Chen, Q., Jin, Z., Xia, B., Wu, P., & Skitmore, M. (2015). Time and Cost Performance of Design–Build Projects. *Journal of Construction Engineering and Management*, 142(2), 04015074. [https://doi.org/10.1061/\(ASCE\)CO.1943-7862.0001056](https://doi.org/10.1061/(ASCE)CO.1943-7862.0001056)
- Cooke, B., & Williams, P. (2013). Construction planning, programming and control. John Wiley & Sons.
- Construction Procurement. (2007, December). *The procurement cycle*. Retrieved June 12, 2018, from Construction Industry Development Board: <http://www.cidb.org.za/publications/Documents/The%20Procurement%20Cycle.pdf>
- Dabarera, G. K. M., Perera, B. A. K. S., & Rodrigo, M. N. N. (2019). Suitability of public-private-partnership procurement method for road projects in Sri Lanka. *Built Environment Project and Asset Management*, 9(2), 199–213. <https://doi.org/10.1108/BEPAM-01-2018-0007/FULL/XML>
- De Marco, A. (2018). Project Management for Facility Constructions. *Project Management for Facility Constructions*. <https://doi.org/10.1007/978-3-319-75432-1>
- DeCorla-Souza, P., Lee, D., Timothy, D., & Mayer, J. (2013). Comparing public–private partnerships with conventional procurement: Incorporating considerations from benefit–cost analysis. *Transportation research record*, 2346(1), 32–39.
- Deep, S., Gajendran, T., & Jefferies, M. (2019). A systematic review of ‘enablers of collaboration’ among the participants in construction projects. *Https://Doi.Org/10.1080/15623599.2019.1596624*, 21(9), 919–931. <https://doi.org/10.1080/15623599.2019.1596624>
- Designing Buildings Wiki. (2018, May 28). *Designing Buildings Wiki*. Retrieved June 04, 2018, from https://www.designingbuildings.co.uk/wiki/Traditional_contract_for_construction

- Diego, J., Rodriguez, Berg, C. v., & McMahon, A. (2012). Investing in Water Infrastructure: Capital, Operations and Maintenance. *Water Papers*, 52. Retrieved march 02, 2019, from <https://openknowledge.worldbank.org/bitstream/handle/10986/17252/NonAsciiFileName0.pdf>
- Doloi, H. (2012). Cost Overruns and Failure in Project Management: Understanding the Roles of Key Stakeholders in Construction Projects. *Journal of Construction Engineering and Management*, 139(3), 267–279. [https://doi.org/10.1061/\(ASCE\)CO.1943-7862.0000621](https://doi.org/10.1061/(ASCE)CO.1943-7862.0000621)
- Effah-Ameyaw, E., & Chan, A. P. (2013). Identifying public-private partnership (PPP) risks in managing water supply projects in Ghana. *Journal of Facilities Management*, 11(2), 152-182.
- Enshassi, A., Mohamed, S., & El Karriri, A. (2010). Factors affecting the bid/no bid decision in the Palestinian construction industry. *Journal of Financial Management of Property and Construction*, 15(2), 118–142. <https://doi.org/10.1108/13664381011063421/FULL/XML>
- Eriksson, P. E., & Westerberg, M. (2011). Effects of cooperative procurement procedures on construction project performance: A conceptual framework. *International Journal of Project Management*, 29(2), 197–208. <https://doi.org/10.1016/J.IJPROMAN.2010.01.003>
- Fairmarkit. (2024). Competitive Bidding. Retrieved from Fairmarkit: <https://www.fairmarkit.com/glossary/competitive-bidding#:~:text=There%20are%20two%20types%20of,will%20also%20use%20noncompetitive%20bidding.>
- Famiyeh, S., Amoatey, C. T., Adaku, E., & Agbenohevi, C. S. (2017). Major causes of construction time and cost overruns: A case of selected educational sector projects in Ghana. *Journal of Engineering, Design and Technology*, 15(2), 181-198.
- Fugar, F. D. K., & Agyakwah-Baah, A. B. (n.d.). *Delays in Building Construction Projects in Ghana*. <https://doi.org/10.3316/INFORMIT.308134427310874>
- Gamini, P., & Werellagama, D. (2014). *Investment Cost and Cost Recovery - Water Sector Sri Lanka*. Retrieved March 01, 2019, from National Water Supply & Drainage Board: http://waterboard.lk/web/images/contents/media/articles/session_04_%2002_mr_phsarath_gamini_cost_of_water.pdf
- German, L., Schoneveld, G., & Mwangi, E. (2013). Contemporary processes of large-scale land acquisition in Sub-Saharan Africa: legal deficiency or elite capture of the rule of law?. *World Development*, 48, 1-18.
- Globalnegotiator. (2018). *What is a turnkey contract?* Retrieved June 19, 2018, from globalnegotiator.com: http://globalnegotiator.com/files/Turnkey-contract.pdf
- Hasim, S., Fauzi, M. A., Yusof, Z., Endut, I. R., & Ridzuan, A. R. M. (2018). The material supply chain management in a construction project: A current scenario in the procurement process. *AIP Conference Proceedings*, 2020(1), 20049. <https://doi.org/10.1063/1.5062675/791861>
- Hill, J. (2024). Material Cost. Retrieved from Cost Estimator: <https://costestimator.co.uk/glossary/material-costs/#:~:text=Process%3A,within%20the%20overall%20project%20budget.>
- Hodge, G. A., & Greve, C. (2016). On Public–Private Partnership Performance. *Http://Dx.Doi.Org/10.1177/1087724X16657830*, 22(1), 55–78. <https://doi.org/10.1177/1087724X16657830>

- Hughes, W., Hillebrandt, P., Greenwood, D., & Kwawu, W. (2006). *Procurement in the Construction Industry*. London & New York: Taylor & Francis.
- Kodithuwakku, E. K. A. B. P., & Lanka, S. (2018). *INCORPORATING SUSTAINABLE PROCUREMENT PRACTICES IN THE SRI LANKAN CONSTRUCTION INDUSTRY: CHALLENGES AND BENEFITS MASTER OF SCIENCE IN CONSTRUCTION PROJECT MANAGEMENT*.
- Kortenko, S., Koskela, L., Tzortzopoulos, P., & Haghsheno, S. (2020). Negative Effects of Design-build Procurement on Construction Projects. Annual Conference of the International Group for Lean Construction. Retrieved from chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.researchgate.net/profile/Sergei-Kortenko/publication/345493655_Negative_Effects_of_Design-Bid-Build_Procurement_on_Construction_Projects/links/65955a6a6f6e450f19c879d6/Negative-Effects-of-Des
- Liao, X., Lee, C. Y., & Chong, H. Y. (2019). Contractual practices between the consultant and employer in Chinese BIM-enabled construction projects. *Engineering, Construction and Architectural Management*, 27(1), 227-244.
- Liu, J., Love, P. E. D., Smith, J., Regan, M., & Davis, P. R. (2014). Life Cycle Critical Success Factors for Public-Private Partnership Infrastructure Projects. *Journal of Management in Engineering*, 31(5), 04014073. [https://doi.org/10.1061/\(ASCE\)ME.1943-5479.0000307](https://doi.org/10.1061/(ASCE)ME.1943-5479.0000307)
- Liyanage, D. (2005). REFORMS TO THE PUBLIC PROCUREMENT POLICY OF SRI LANKA. Sri Lanka Development Forum. Retrieved from <https://tropicalclimate.org/data/SLDF05/paper-10.pdf>
- Marco, A. De, Rafele, C., & Thaheem, M. J. (2015). Dynamic Management of Risk Contingency in Complex Design-Build Projects. *Journal of Construction Engineering and Management*, 142(2), 04015080. [https://doi.org/10.1061/\(ASCE\)CO.1943-7862.0001052](https://doi.org/10.1061/(ASCE)CO.1943-7862.0001052)
- Marjan, B., Shabnam, E., Maryam, F., & Jamshid, H. S. (2010). *Analytical comparison between BOT, BOOT, and PPP project delivery systems*.
- Marović, I., Perić, M., & Hanak, T. (2021). A Multi-Criteria Decision Support Concept for Selecting the Optimal Contractor. *Applied Sciences* 2021, Vol. 11, Page 1660, 11(4), 1660. <https://doi.org/10.3390/APP11041660>
- Ministry of Finance. (1998). *Procurement Guidelines and Manuals*. Retrieved from Ministry of Finance, Economic Stabilization & National Policies: <https://www.treasury.gov.lk/web/procurement-guidelines-and-manuals/section/guidelines%20on%20private%20sector%20infrastructure%20projects>

- Ministry of Finance, Economic Stabilization & National Policies. (2019). Supplementary Documents. Retrieved from Ministry of Finance, Economic Stabilization & National Policies: <https://www.treasury.gov.lk/web/pro-supplementary-documents/section/documents?page=2>
- Ministry of Water Supply & Drainage. (2001). National Drinking Water Policy. Retrieved from UN Environment Programme, Law and Environmental Assistance platform: <https://leap.unep.org/en/countries/lk/national-legislation/national-drinking-water-policy#:~:text=While%20recognizing%20that%20access%20to,to%20maintain%20basic%20water%20services>
- Li, X., Zhu, Y., & Zhang, Z. (2010). An LCA-based environmental impact assessment model for construction processes. *Building and Environment*, 45(3), 766–775. <https://doi.org/10.1016/J.BUILDENV.2009.08.010>
- Mikes, A., & Kaplan, R. S. (2013). Towards a Contingency Theory of Enterprise Risk Management. *SSRN Electronic Journal*. <https://doi.org/10.2139/SSRN.2311293>
- Mshali, R. M. (2016). An investigation into construction contracts in Malawi-turnkey versus traditional contracts (Doctoral dissertation, University of Bolton).
- National Procurement Agency. (2006b). Procurement Guidelines. *Goods & Works*. Sri Lanka. Retrieved May 15, 2018, from <http://www.treasury.gov.lk/procurement-guidelines>
- National Water Supply & Drainage Board. (2020). Corporate Plan . Retrieved from Water Board: chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://ebis.waterboard.lk/documentation/It/Co-operate%20Plan/NWSDB%20Corporate%20Plan%20Final_%20English_20201124.pdf
- National Water Supply & Drainage Board. (2021). Standard Bidding Document of Civil Contractor Finance.
- NSW Government. (2008). *Procurement method selection*. Retrieved March 08, 2019, from Procurepoint: <https://www.procurepoint.nsw.gov.au/before-you-buy/construction/procurement-system-construction/procurement-method-selection>
- Nwangwu, G. (2019). A comparative analysis of the use of unsolicited proposal for the delivery of public-private partnership projects in Africa. *Journal of Sustainable Development Law and Policy* (the), 10(2), 207-226.
- Olawale, Y., & Sun, M. (2015). Construction project control in the UK: Current practice, existing problems and recommendations for future improvement. *International journal of project management*, 33(3), 623-637.
- Osei-Kyei, R., & Chan, A. P. C. (2021). Management of Unsolicited Public-Private Partnership Projects. *International Best Practices of Public-Private Partnership*, 109–126. https://doi.org/10.1007/978-981-33-6268-0_7
- Osei-Kyei, R., Chan, A. P. C., Dansoh, A., Ofori-Kuragu, J. K., & Oppong, G. D. (2018). Strategies for Effective Management of Unsolicited Public–Private Partnership Proposals. *Journal of Management in Engineering*, 34(3), 04018006. [https://doi.org/10.1061/\(ASCE\)ME.1943-5479.0000598](https://doi.org/10.1061/(ASCE)ME.1943-5479.0000598)

- Park, J., & Kwak, Y. H. (2017). Design-Bid-Build (DBB) vs. Design-Build (DB) in the U.S. public transportation projects: The choice and consequences. *International Journal of Project Management*, 35(3), 280–295. <https://doi.org/10.1016/J.IJPROMAN.2016.10.013>
- Pheng, L. S., & Hou, L. S. (2019). The Economy and the Construction Industry. *Construction Quality and the Economy*, 21. https://doi.org/10.1007/978-981-13-5847-0_2
- Potts, K., & Ankrah, N. (2014). Construction cost management: learning from case studies. Routledge.
- Pramen, P. S., Maharjan, R., & Batista, J. R. (2019). Performance of Design-Build and Construction Manager-at-Risk Methods in Water and Wastewater Projects. *Practice Periodical on Structural Design and Construction*.
- PUBLIC ADMINISTRATION AND PUBLIC POLICY. (2009). International Handbook of Public Procurement. (E. M. BERMAN, J. RABIN, & K. V. Thai, Eds.) Taylor & Francis Group.
- Pruthi, H. S., & Singh, V. (2023). Optimal procurement choices for development of public infrastructure - identification of key metrics. *International Journal of Procurement Management*, 16(1), 75. <https://doi.org/10.1504/IJPM.2023.127886>
- Rahmani, F., Maqsood, T., & Khalfan, M. (2017). An overview of construction procurement methods in Australia. *Engineering, construction and architectural management*, 24(4), 593-609.
- Raisbeck, P., Duffield, C., & Xu, M. (2010). Comparative performance of PPPs and traditional procurement in Australia. <https://doi.org/10.1080/01446190903582731>, 28(4), 345–359. <https://doi.org/10.1080/01446190903582731>
- Ratnasabapathy, S., & Rameezdeen, R. (2006). Design-Bid-Build Vs Design – Build Projects: Performance. In P. McDermott, & M. M. Khalfan (Ed.). University of Salford . Retrieved March 08, 2019, from file:///C:/Users/Admin/Downloads/Researching_decision_support_what_do_we_need_to_kn.pdf
- Rathnaseela, E. (2018). Current status, Challenges and Achievements in Procurement Management. Fifth South Asia Region Public Procurement Conference. Retrieved from <https://www.procurementinet.org/wp-content/themes/inet/img/presentation/document/2018/Sri%20Lanka%20Presentation.pdf>
- Regan, M. (2012). Public infrastructure procurement: A comparative analysis of adversarial and non-adversarial contracting methods - Working for better procurement outcomes," Public Infrastructure Bulletin. *Public Infrastructure Bulletin*, 1(8). Retrieved May 15, 2018, from https://epublications.bond.edu.au/pib/vol1/iss8/11/?utm_source=epublications.bond.edu.au%2Fpib%2Fvol1%2Fiss8%2F11&utm_medium=PDF&utm_campaign=PDFCoverPages
- Regan, M., Love, P. E., & Jim, J. (2015). Public infrastructure procurement: A review of adversarial and non-adversarial contracting methods. *Journal of Public Procurement*, 15(4), 405-438.
- Romero, M. J., & Vervynckt, M. (2017, October). (M. Atkin, & V. Anning, Eds.) Retrieved June 20, 2018, from Eurodad: <http://www.eurodad.org/files/pdf/59d5d29434577.pdf>
- Rose, T., & Manley, K. (2011). Motivation toward financial incentive goals on construction projects. *Journal of Business Research*, 64(7), 765–773. <https://doi.org/10.1016/J.JBUSRES.2010.07.003>

- Sarmiento, J. M., & Renneboog, L. (2016). Anatomy of public-private partnerships: their creation, financing and renegotiations. *International Journal of Managing Projects in Business*, 9(1), 94–122. <https://doi.org/10.1108/IJMPB-03-2015-0023/FULL/XML>
- Shehu, Z., Endut, I. R., Akintoye, A., & Holt, G. D. (2014). Cost overrun in the Malaysian construction industry projects: A deeper insight. *International journal of project management*, 32(8), 1471-1480.
- Shrestha, A., Chan, T.-K., Aibinu, A. A., Chen, C., & Martek, I. (2017). Risks in PPP Water Projects in China: Perspective of Local Governments. *Journal of Construction Engineering and Management*, 143(7), 05017006. [https://doi.org/10.1061/\(ASCE\)CO.1943-7862.0001313](https://doi.org/10.1061/(ASCE)CO.1943-7862.0001313)
- Siew Goh, C., & Abdul-Rahman, H. (2013). The Identification and Management of Major Risks in the Malaysian Construction Industry Risk Management in the Abandoned Housing Projects in Malaysia View project Reducing Dead On Arrival (DOA) due to Covid19 with IoT View project. *Article in Journal of Construction in Developing Countries*. <https://www.researchgate.net/publication/281570013>
- Singh, P. S., & Wayal, A. (2019). Swiss Challenge Method of Procurement A Comparative Study of State Submission Requirements and Procedure Adopted in Indian States of Maharashtra, Haryana, Madhya Pradesh, Rajasthan and Karnataka. *International Journal of Engineering Research & Technology (IJERT)*.
- Smith, N. J., Merna, T., & Jobling, P. (2014). *Managing risk in construction projects*. John Wiley & Sons.
- Swedish Competition Authority. (2012). *The Cost of Different Goals of Public Procurement*.
- Taroun, A. (2014). Towards a better modelling and assessment of construction risk: Insights from a literature review. *International Journal of Project Management*, 32(1), 101–115. <https://doi.org/10.1016/J.IJPROMAN.2013.03.004>
- Toteng, M. P. (2014). *Effectiveness of the procurement process within vocational training centres in Botswana: case study of Gaborone Technical College (GTC)*. <https://repository.nwu.ac.za/handle/10394/19622>
- Trebilcock, M., & Rosenstock, M. (2015). Infrastructure public–private partnerships in the developing world: Lessons from recent experience. *The Journal of Development Studies*, 51(4), 335-354.
- Tummala, R., & Schoenherr, T. (2011). Assessing and managing risks using the Supply Chain Risk Management Process (SCRMP). *Supply Chain Management*, 16(6), 474–483. <https://doi.org/10.1108/13598541111171165/FULL/XML>
- Turskis, Z., Gajzler, M., & Dziadosz, A. (2012). Reliability, Risk Management, and Contingency of Construction Processes and Projects. *Vilnius Gediminas Technical University*, 18(2), 290–298. <https://doi.org/10.3846/13923730.2012.672931>
- Tuynman, M. (2023). *Unsolicited & Welcome: An inquiry into the desirability and feasibility of Unsolicited Proposals in Dutch urban area development*.
- The Design and Build Contract*. (2019, January). Retrieved january 20, 2019, from www.lawteacher.net: <https://www.lawteacher.net/free-law-essays/contract-law/the-design-and-build-contract-contract-law-essay.php>

- U.S. *Department of State*. (2018). Retrieved June 21, 2018, from www.state.gov: <https://www.state.gov/m/a/140245.htm>
- Utami, L. W. (2017, October 26). Procurement 88. Retrieved March 07, 2019, from <https://www.scribd.com/document/362648654/88-procurement-pdf>
- Wang, H., Xiong, W., Wu, G., & Zhu, D. (2017). Public-private partnership in Public Administration discipline: a literature review. *Https://Doi.Org/10.1080/14719037.2017.1313445*, 20(2), 293–316. <https://doi.org/10.1080/14719037.2017.1313445>
- Weerasekara, D., Disaratna, V., & Withanage, K. T. (2021). Procurement management in the foreign-funded construction projects implemented in Sri Lanka. *International Journal of Construction Management*.
- World Bank. (2014). World Bank Document. Retrieved from World Bank Group: <https://documents1.worldbank.org/curated/ar/359811468143061195/pdf/954800PUB0Box3010revised0July102014.pdf>
- Worldbank. (2018, June 02). *Public-Private-Partnership in Infrastructure Resource Center*. Retrieved June 02, 2018, from World Bank: <https://ppp.worldbank.org/public-private-partnership/>
- Wuni, I. Y., & Shen, G. Q. (2019). Critical success factors for modular integrated construction projects: a review. *Https://Doi.Org/10.1080/09613218.2019.1669009*, 48(7), 763–784. <https://doi.org/10.1080/09613218.2019.1669009>
- Yang, J. Bin, Yang, C. C., & Kao, C. K. (2010). Evaluating schedule delay causes for private participating public construction works under the Build-Operate-Transfer model. *International Journal of Project Management*, 28(6), 569–579. <https://doi.org/10.1016/J.IJPROMAN.2009.10.005>
- Yang, J., Nisar, T. M., & Prabhakar, G. P. (2017). Critical success factors for build-operate-transfer (BOT) projects in China. *The Irish journal of management*, 36(3), 147-161.
- Yap, J. B. H., Chow, I. N., & Shavarebi, K. (2019). Criticality of Construction Industry Problems in Developing Countries: Analyzing Malaysian Projects. *Journal of Management in Engineering*, 35(5), 04019020. [https://doi.org/10.1061/\(ASCE\)ME.1943](https://doi.org/10.1061/(ASCE)ME.1943)