

Table S1 shows the cost input parameters identified to the proposed model, while Table II shows the overtime policies used in this study. The selected overtime policy determines the number of daily working hours (DWH), the number of working days per week (WWD), and the overtime cost adjustment factor of crew c working on production, logistics and installation processes (ϕ_{pc} , ϕ_{lc} , and ϕ_{ic}).

Table S1: The cost input parameters of the proposed model [1,2].

| Input parameters | Symbol | Cost | Unit |
|---|-------------|------|---------|
| Daily indirect or overhead costs | CIC | 500 | \$/day |
| Mobilization cost of onsite crane (OC) | MCE_{OC} | 900 | \$ |
| Mobilization cost of launching gantry (LG) | MCE_{LG} | 9000 | \$ |
| Mobilization cost of trolley (TR) | MCE_{TR} | 900 | \$ |
| Mobilization cost of preparation crew (NPC) | MCC_{NPC} | 200 | \$ |
| Mobilization cost of pre-stressing crew (NSC) | MCC_{NSC} | 200 | \$ |
| Mobilization cost of reinforcement crew (NFC) | MCC_{NFC} | 200 | \$ |
| Mobilization cost of casting crew (NCC) | MCC_{NCC} | 200 | \$ |
| Fixed cost of inner molds (NIM) | FC_{NIM} | 1000 | \$ |
| Fixed cost of outer molds (NOM) | FC_{NOM} | 1000 | \$ |
| Fixed cost of rebar cage molds (NRC) | FC_{NRC} | 500 | \$ |
| Hourly cost of steaming machine (SM) | RE_{SM} | 10 | \$/hour |
| Hourly cost of yard crane (YC) | RE_{YC} | 150 | \$/hour |
| Hourly cost of rebar cage mold (NRC) | RE_{NRC} | 10 | \$/hour |
| Hourly cost of inner mold (NIM) | RE_{NIM} | 10 | \$/hour |
| Hourly cost of outer mold (NOM) | RE_{NOM} | 10 | \$/hour |
| Hourly cost of trailer (NT) | RE_{NT} | 100 | \$/hour |
| Hourly cost of on-site crane (OC) | RE_{OC} | 250 | \$/hour |
| Hourly cost of launching gantry (LG) | RE_{LG} | 700 | \$/hour |
| Hourly cost of trolley (TR) | RE_{TR} | 250 | \$/hour |
| Hourly cost of preparation crew (NPC) | RC_{NPC} | 200 | \$/hour |
| Hourly cost of pre-stressing crew (NSC) | RC_{NSC} | 200 | \$/hour |
| Hourly cost of reinforcement crew (NFC) | RC_{NFC} | 200 | \$/hour |
| Hourly cost of casting crew (NCC) | RC_{NCC} | 200 | \$/hour |
| Hourly storage cost | CS | 10 | \$/hour |

Table S2: Overtime policies [3,1].

| Policy | Number of daily working hours (DWH) | Number of working days per week (WWD) | Overtime cost adjustment factors (ϕ_c) |
|--------|---|---|---|
| 1 | 8 | 5 | 1 |
| 2 | 9 | 5 | 1.111 |
| 3 | 10 | 5 | 1.2 |
| 4 | 11 | 5 | 1.273 |
| 5 | 12 | 5 | 1.333 |
| 6 | 8 | 6 | 1.167 |
| 7 | 9 | 6 | 1.259 |

| | | | |
|----|----|---|-------|
| 8 | 10 | 6 | 1.333 |
| 9 | 11 | 6 | 1.394 |
| 10 | 12 | 6 | 1.444 |
| 11 | 8 | 7 | 1.286 |
| 12 | 9 | 7 | 1.365 |
| 13 | 10 | 7 | 1.429 |
| 14 | 11 | 7 | 1.481 |
| 15 | 12 | 7 | 1.524 |

References

1. Mawlana, M., 2015. Improving Stochastic Simulation-based Optimization for Selecting Construction Method of Precast Box Girder Bridges. Concordia University. Available online: <https://spectrum.library.concordia.ca/id/eprint/980234/> (accessed on 7 December 2021) .
2. Marzouk, M., Said, H., El-Said, M., 2009. Framework for Multiobjective Optimization of Launching Girder Bridges. J. Constr. Eng. Manag. 135, 791–800.
[https://doi.org/10.1061/\(ASCE\)0733-9364\(2009\)135:8\(791\)](https://doi.org/10.1061/(ASCE)0733-9364(2009)135:8(791))
3. RS Means Company, 2001. Means Heavy Construction Cost Data. 15th ed
Means Heavy Construction Cost Data. R. S. Means Company, Incorporated, 2000, ISBN 0876295944, 9780876295946