



PROPERTY DEVELOPMENT SERIES 8 CONSTRUCTION MANAGEMENT TIME, QUALITY, COST

A PERSPECTIVE

Property Development Series 8

Construction Management

Time, Quality, Cost

Congratulations, you have signed the contract with the appointed and successful builder and now it is full steam ahead with the actual physical construction works. You have waited almost 2 years since acquiring the property, fought Council, documented the design, sold most of the units, secured financing and finally, something is actually happening on site!

At the beginning, everyone is optimistic about creating a product which is delivered to the required quality, on time and to budget. However as time progresses, issues start to arise. The time spent in the ground proved to be much longer than programmed, the builder attempts to speed up construction through pursuing the relevant sub-contractor and quality issues start to arise. Subcontractors start to scramble for variations and EOTs, as they begin to experience delays and higher overheads and the builder start to issue variation notices. Site meetings start to become a weekly defensive contractual affair, rather than proactively advancing the project and managing risks. The builder claims the project is on programme, but only to advise 1 month before practical completion that the project will not be complete on time. They start negotiating how to achieve practical completion on time with the bare minimum statutory and legal requirements. The project is only fully complete and ready for handover 2 months after the date of practical completion. Claims start to come in for extensions of time, delay costs, variations and consequential loss. The contractual argument and battle goes on 4 months after practical completion.

This sounds familiar, doesn't it? How then could a developer or client take proactive measures to prevent the above from occurring time and time again? We observe many very experienced development organisations still faced with such issues, even after managing so many complex projects for so many years. It goes to prove that achieving a project on time, within budget and to the required quality is still a hot topic today, as it was when the project management discipline was invented!

Australia construction companies are typically classified into three tiers – Tier 1, Tier 2 and the remaining domestic builders. As a result of

corporate consolidation over the past few years, there are very few true Tier 1 contractors remaining today (Leighton, Multiplex, Lend Lease are some notable ones). These Tier 1 contractors typically undertake large scale commercial construction of at least A\$50mil in value, and typically more than A\$100mil. Tier 2 contractors form the majority of the companies undertaking commercial or large scale residential projects up to \$100mil in value. There are numerous reputable firms but these companies are quite focused in one or two states. There are very few national tier 2 builders. The lowest tier comprises the largest group. These are all the domestic home builders and small scale construction companies, typically specializing in residential house, townhouse and apartment construction works. They typically carry out construction work up to value of approximately \$20mil. This pyramidal tiering phenomenon segregates the market in which construction companies compete, but sometimes creates labour shortages in boom times, but surpluses in down times, as the property cycle moves forward. Typically, this will be reflected in higher construction tender prices, and longer lead times for construction work, a phenomenon that is difficult to control. Developers must understand the demand-supply equation when engaging with builders and allow adequate lead times and contingencies when assessing development projects.

Are there any strategies that organisations and clients could adopt to successfully navigate the project through this final and risky phase? However, it is not a pure matter of adapting these strategies. It is how they are executed and implemented in unison with each other that is the secret sauce to successful project delivery. We attempt to explore several of the more important strategies.

Project Governance Structure

Especially for larger scale projects, enforcing a strict governance structure will ensure your project can proceed with clear paths of

communication, timely decision making and proactive management of any site and safety risks. This may take the form of a hierarchy of meetings – weekly site meetings, monthly leadership meetings and monthly project reporting. Weekly site meetings should be designed to monitor site progress, understand variation claims, co-ordinate design with construction issues, and monitor construction quality. PCG leadership meetings should comprise of members from the contractor, project manager and client and other key stakeholders and their objective will be to review site progress, cost and quality and safety issues. Safety is always an important aspect of construction work, as any injury, deaths and lost time will have consequential legal and reputational impact on the client and the whole team. This is where the builder will present their monthly report, and the resident architect or engineer presenting their monthly report to the client. There will also be discussion on the look-ahead schedule for the coming month as well as target dates tracked against contract programme dates.

The formal governance structure is equally as important as the informal one. By informal, we are referring to informal relationships that existing at all levels of the project between the client and the contractor – from site management level through to the contractor's senior management. There should be regular connection between the client and the contractor's senior management in the head office, so that appropriate attention is given by the builder's leadership team. This should occur throughout the project, regardless of whether there are any positive or negative issues. These interactions should also act as an avenue of escalation for either party before matters are considered contractually. Quite often, escalated issues are resolved through high level mutual agreement without the need for contractual consideration and saves effort and time expended by the team.

Independent Monitoring and Control

In addition to enforcing a communication and meeting structure, it is also important to consider appointing a client representative on site, the resident architect who normally performs the following functions:

- Acts as the client and the projects independent progress auditor and tracking progress against contract programme and advising the client of any potential issues
- Actively monitor the quality of construction works, undertaking quality inspections and monitoring rectification of any defects. Manage practical completion
- Act as the communicating and correspondence link be-

tween the design team and site, and issue site instructions as necessary. Any client instructions, design changes, design team changes should be channeled to the resident architect. The RA is the only point of formal communication with the builder.

- Report regularly to the client formally and act as contract administrator, administering the construction contract in assessing variation and EOT claims
- Liaise with any client fitout works carried out by tenants or end users and co-ordinate the fitout integration works with the builder

The Resident Architect is the client's only representative on site, and hence he/she should be well resourced and supported by the design team in the office. Sometimes on larger projects, there may also be a resident engineer, or resident building services engineer responsible for their respective disciplines. A clerk of works may also be appointed whose role is purely to maintain quality and workmanship of construction works through inspections and testing and ensuring that the works are carried out in accordance with the design and specifications.

Variations Management

Timely raising and resolution of variations is also critical to close out the project at practical completion. Whilst time bar provisions in contracts provide a window of opportunity for the builder to submit variation claims, there should be a process by which variations are reviewed regularly, reviewed, re-submitted and approved or rejected. This provides cost certainty throughout the project.

The Resident Architect should also take note of any forecast variations that are not yet submitted by the contractor, and in conjunction with the QS, provide an updated forecast final project cost, taking into account submitted, pending and forecast variations. This proactive approach informs the client of the status of the allocated contingency, and if necessary, takes steps to mitigate financial risks through some late design value engineering changes that do not impact on overall programme, or seek additional funding.

We have seen many major infrastructure projects go over budget, creating intense public scrutiny. The typical reasons for exceeding budget are extended programme resulting in delay costs and EOT claims, unforeseen site conditions and design quality and co-ordination. Whilst unforeseen ground conditions are unexpected as the term suggests, design quality and co-or-

dination can be minimized through effective project management tools and processes, and consultant team QA. However, programme is always one of the more difficult areas to control and manage, as there are so many parties and sub-contractors and suppliers involved.

Programme Management

This is the trickiest part of managing construction work. As a developer, you are typically slightly removed from the physical construction work, and would take a monitoring and reporting role, as opposed to an active management role that a good contractor should take. There are a number of ways and processes that a developer can implement to minimize the risk of delays and take timely action when delays do occur:

- Ensure the construction contract requires the builder to submit a detailed construction programme at the outset. Outline in the contract specifically what level of detail that is required in this programme and request this programme at the outset. The programme should not be summary level programme, but a detailed activity by activity and discipline by discipline programme on a weekly horizontal axis. The programme should also make allowance for any wet weather delays, RDOs and public holidays.
- This base programme should be tracked on a weekly basis by the resident team on an activity by activity basis. The critical path should be highlighted and any delays in key critical activities should be raised and discussed with the contractor at each site meeting. The activities will include both site activities, authority and approval processes and any enabling works such as traffic management measures and services supply or relocation works.
- The contractor should also produce look-ahead bi-weekly programmes that they use to manage their sub-contractors and suppliers. The resident team should obtain a copy of this program if

necessary to get an understanding of what will occur on site in the coming 2 weeks. In most circumstances, the contractor may not wish to provide this programme to the client, in which case, work off the base programme.

- A contractor typically produces and works on two programmes – the base programme that is provided to the client, and the actual programme which is normally a lot tighter and is at least 2 weeks ahead of the base to allow for contingency for any subcontractor unforeseen delays or events.
- Another tool to monitor programme is the detailed trades procurement schedule, which is normally presented in the form of a large excel spreadsheet, with target dates for issuing, reviewing and awarding subcontract tenders, taking into lead times for any material supplies or equipment. Review the status of this schedule at each site meeting so that the whole team is aware of the risks. Any delays should be discussed at site meetings and rectification measures implemented.
- Also determine and focus on any long lead and critical path procurement items such as external façade, mechanical plant or other special equipment manufactured overseas. Monitor manufacture, delivery and progress of these items against planned dates. These special items should be separately discussed and reviewed at site meetings so that all parties pay special attention to these items.

We believe that programme and delays should be managed proactively by the developer or their resident site representative. Programmes and timing are always a sensitive area that contractors and builders may try to avoid committing to any timeframes. As such, we feel it necessary to maintain an independent eye on progress and proactively resolve any programme issues before it becomes too late.



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OUR CAPABILITIES



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Solid pre-acquisition due diligence and sourcing of the best on and off market development sites is the first step to a successful project.



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Thorough market research, detailed risk assessment and a robust project feasibility analysis will provide comfort for a successful acquisition.



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INVESTOR REPRESENTATION

On larger scale joint ventures or projects, negotiating development agreements, undertake commercial and technical due diligence and representing investors throughout the project will ensure their interest and risks are managed.

ABOUT US

STM Developments is a property development & advisory business based in Melbourne, Australia.

We work alongside developers and investors, providing site acquisition, feasibility analysis and project management services for residential and commercial projects. We initiate and participate in property development joint ventures as project proponent. We also act as investors' independent representatives as their point of contact for their co-investment projects and joint ventures.

Founder and Managing Director Simon Lee has more than 17 years of professional experience in all major facets of the development industry in Australia. He has successfully designed, led and managed major commercial, retail, mixed use and residential projects in Hong Kong and Australia ranging in value from \$4 million to \$20 billion. Simon is also an occasional guest lecturer and tutor at the Faculty of Architecture University of Melbourne.

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