

GETTING BUILDINGS OFF THE GROUND

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It has always been my belief that working as a project manager essentially means that I am paid to avoid problems. In that sense, *fixing* 156 Oxford St was something entirely new to me.

156 Oxford St was a 72 residential units property development in a suburb of Sydney, which had come to a halt under the supervision of another management team. It would take more than 6 months to review and sign a new construction contract, and another 6 months to move it forward, resulting in a great deal of time and money being wasted.

This paper documents my navigation process to bring this job back on track and the lessons learned. Sometimes it surprises me how some of my conclusions, which I have summarised in the last section of this paper, are often overlooked by the construction industry.

INITIAL SCOPE OF WORKS

I admit that when I started working on 156 Oxford St I felt this job was going to be a walk in the park. The following is a list of what needed to be done:

1. fix the sewer deviation;
2. replace the private certifier authority;
3. lodge an application for a substation;
4. lodge a section 96; and
5. 'get the contractor back on site asap'.

Item 1 was an interesting story. Although the construction contract was design and construct, the responsibility to organise the sewer deviation rested with the principal and for some strange reason, the sydney water coordinator working on this job was struggling to organise the permits we needed. But we will get back to this item later in the paper as the sewer deviation proved to be a key event in the evolution of this particular project.

Item 2 was a formality as the certifier was happy to leave.

Item 3 seemed odd to me. Why would we need to lodge an application for a substation when the job had already started?

Item 4 would become a can of worms.

I knew item 5 was the client's main concern.

To cut a long story short, 156 Oxford St had a rushed start, especially at tender stage. Adjoining structures hadn't been protected. Neighbour relationships were poorly managed, which led to a court case. A court order was issued and the job came to a halt.

Obviously, signs of professional negligence were looming. How could a project manager have acted so poorly? I should have been suspicious about the design team I was going to deal with. Although I kept asking questions, I was having difficulties finding the right answers.

We had to lodge a section 96, but no one was able to explain the design changes that had occurred when construction started. It so happened that the shoring wall increased from a 400 millimeters thick wall to 650 millimeters during excavation, making the basement tighter in the process. Suddenly we could no longer achieve the number of car spaces required by council. I was stuck.

To solve the car park problem the contractor proposed car stackers. However, we were still below the number of car spaces required. Also, most councils don't like car stackers and the one we were dealing with wasn't any different.

For a couple of weeks the design team and I were going around in circles. At our design meetings, it was impossible to avoid noticing the tension in the room. Everyone always seemed to give measured answers, apart from the structural engineer, who never stopped saying 'the builder got away with murder. They f---d up the whole job.'

Despite the inappropriate language I understood the engineer. The contractor had a duty of care to protect the adjoining structures. However, since we were also dealing with design issues it was hard to believe that the contractor was the only party at fault.

Obviously, none of the consultants were going to tell me the truth. It was obvious that when things go wrong, with insurance claims at large, the majority of people we deal with will only tell us their version of the story, omitting a great deal of important facts.

Even the contractor seemed to be of the opinion they hadn't done anything wrong.

'We won't go back until a full construction certificate has been issued for this job. The design doesn't work. Especially in the basement. This job is too risky for us,' they told me when I met them.

'I take it you are back on site if I can fix this mess,' I said.

'We will look into it,' the contractor replied.

This was not the quite reaction I had expected back then.

Unfortunately, fixing the basement car park was not an easy task. The solutions proposed by the consultants such as car stackers or excavating another basement were far from providing the solution we were looking for.

Fortunately, at one of our design meetings, a subcontractor named McIvester Sheet Piling was mentioned by one of the consultants. I finally saw the first ray of light shining through the project.

MCIVESTER SHEET PILING

Mclvester Sheet Piling was a subcontractor based in Brisbane, specialised in thin shoring walls.

Mclvester seemed interested in the job when I called them. They had tendered the for the job previously. They had prepared a program and a detailed cost break-up, but they got in 50% dearer than the other subcontractor.

It soon became clear that a great deal of the client losses could have been avoided if the contractor had spent \$33k to underpin the adjoining structures.

Mclvester did have the solution to our design problem. They were able to drive their sheets 25mm off the adjoining wall, being around 350mm trick, which would make our basement car park layout work as per the approved DA. This was good news, but Mclvester was also reluctant to finish a job that someone else had started.

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Taking over a job that had gone wrong is risky. Risky for a contractor, and even riskier for a subcontractor. Mclvester had good reasons to be cautious.

Subsidence was still a major issue. In their opinion, the sand was still moving on site . It would take months to settle.

At the same time the court ordered the existing sheets on site to be removed. Mclvester was fully aware that removing sheets generates three times more vibration than driving those metal sheets into the sand. Further damage would occur to the adjoining property.

‘Surely we can do something about it,’ I said.

‘Most likely, but we don’t know yet. We have to fly people from Brisbane to have a look at this. Rest assure that we are the best at what we do, ’ Mclvester’s general manager replied.

I admit Mclvester seemed to know groundworks beyond the ordinary subcontractor, but their lack of commitment to the project was starting to do my head in. They simply would not commit. I was under pressure from the client and the court to do the recovery works and get on with the job as soon as possible.

Several weeks went by and finally Mclvester proposed their solution to the problem which involved driving their sheet piles through a 350 millimeters gap. Not that many subcontractors could do it.

‘We can do this,’ the general manager said.

However, when I thought we had a piling solution to move the job forward we had to digest another worm.

AUSGRID

While dealing with Mclvester, I was also working on the construction certificate so the contractor would return to site. You might remember item 1. We had to agree the location of the new sewer pipe, although this was something that our Sydney Water coordinator was struggling to solve.

We needed the consent of two authorities, Sydney Water and Ausgrid, but they weren't communicating with each other.

Frustrated, I decided to bypass the Sydney Water coordinator and called Ausgrid to know what was going on.

Upon answering the phone, Ausgrid had a surprising reaction to my call.

'We are happy that someone is talking to us about this site,' the Ausgrid representative said.

'What do you mean?' I asked.

'We are about to issue a letter requesting more information.'

'More information? With regards to the sewer diversion?' I wondered.

'No, we need more information in order to lift the section 49!'

I was surprised to discover that the contractor had tripped the adjoining substation twice when they were working on the shoring wall. Furthermore, the contractor had been working within 10 meters of high voltage cables without Ausgrid supervision. As a result Ausgrid had issued a stop notice to stop further construction works, known as section 49A.

Lifting the section 49A was not an easy task. Ausgrid was entitled to protect their asset and had the law on their side. We had several meetings and a list of outstanding issues to close out. Soon one thing became apparent, we could no longer move the project forward. We needed a contractor.

THE BASELINE REPORT

Mclvester wanted to do the job, but they were a subcontractor. We could prepare an early works package but Mclvester were not willing to take risks. They wanted the job risk-free.

At the request of Mclvester I had spent a great deal of time commissioning reports to identify the location of the existing services, ground anchors and so forth.

We came up with a strategy to monitor future construction works, and this time around we commissioned detailed dilapidation reports. Since a great deal of documentation had been produced, we decided to organise a meeting to discuss the status of the project. All consultants were invited.

At the meeting, rather than committing to the job as I wanted, McIvester were of the opinion that more reports had to be produced.

Surprisingly, when I thought the baseline meeting was heading towards commissioning more reports, we touched on a subject that would set this job onto the right path.

It so happened that someone asked, 'has the insurance company been notified?'

INSURANCES

Insurance of construction works is a contractual obligation, but it's rarely discussed between the contractor and the principal. There is something about the nature of insurance that makes us refrain from discussing them. But let me tell you, since this is something that needs to be organised, it's better to spend the time getting it right from the start.

On this particular job the contractor had insured the works. At the same time subsidence was still a problem on site, meaning future damage to the Ausgrid substation was a liability and the cost to rectify was unknown.

At the baseline meeting it became clear that although the insurance company needed to be notified we weren't sure if the client was protected or not in the event of future damage to the substation - since no one had seen the insurance policy.

We needed to scrutinise the insurance policy, but the contractor wasn't interested in showing it to us. In order to ensure that future damages to the substation would be covered by the insurance policy, the current problems we were having needed to be notified to the insurance company and the contractor wasn't interested in doing so either.

Looking back I suspect seeking legal advice had finally come into play. I guess if I was given the opportunity to fix this job again, I would most likely set the record straight from the beginning. Sentences like 'the builder got away with murder' should be properly investigated and the responsible parties should be accountable for their wrongdoings.

I am not saying we should start proceedings, quite the opposite. On this particular job, the client was adamant not to take any consultant or the contractor to the cleaners. However, it does help to remind the parties involved of their contractual obligations.

Threatening the contractor that we were going to notify the insurance company meant that soon insurance lawyers would start asking difficult questions. For the contractor, it was better to take the opportunity to rectify their works rather than doing nothing and wait for a lawsuit.

In the end, I am happy to say that the contractor honoured their initial obligations to the client. As part of the new construction contract the contractor was obliged to resolve the section 49A with Ausgrid.

McIvester decided to pull out. They mentioned past contractual issues with the contractor as the main reason for their decision.

MY LESSONS LEARNED

Based on my lessons learned working on 156 Oxford St the following is a list of must-dos in order to avoid seeing a job coming to a halt. Far from being a final say on this topic, I am hoping that these notes will add to the on-going discussion about what constitutes ground works best practice in the construction industry.

1. **Protection of adjoining properties** - any third party structure that faces the property boundary line or is within a close range of the construction works is a liability for the contractor. Regardless of the reputation of the contractor, early works should not start before the following has been carried out:
 - a. **working method statement** - the contractor should produce a working method statement for construction works close to third party structures allowing for:
 - i. **protection** - description of how the adjoining structures are going to be protected or how the existing buildings will be outside construction works zone of influence. Needs to be certified by an engineer. This item should never be overlooked and it's paramount to get it right.
 - ii. **monitoring devices** - working method statement to allow for monitoring devices if necessary so that construction works stops immediately if damage to adjoining property occurs.
 - iii. **survey** - reduced levels of footpaths and adjoining walls should be surveyed before the work starts.
 - iv. **line of communications** - communications are a key element for the success of any project. The working method statement should identify existing property owners, define the forms of communications, and frequency of reporting.
 - v. **relevant authorities** - it's better to engage with any relevant authority from the start and to make them part of the design and construction process. Failure to engage them is a liability. Authorities are obliged to protect their assets, which is what the contractor should be doing too.
 - b. **dilapidation reports** - dilapidation should measure the extent of damage found on the adjoining property, such as width and should provide a description of possible reasons for the damage. Dilapidation reports that contain only pictures with loose descriptions are meaningless when damage to existing property occurs as the contractor is incapable of proving its innocence.
2. **Know the site** - experience tells us that it's impossible to fully know the site before excavation starts, but it doesn't mean that nothing should be done about it as a great deal of what's below ground can be identified before plant is deployed. The following should be taken into account:

- a. **services** - the contractor should identify the exact location of all ground services before ground works can commence. It is already a legal obligation placed upon the contractor, but can be sometimes overlooked.
 - b. **ground anchors** - the contractor is to find as-built drawings of any existing ground anchors on site and survey location, if possible before excavation and piling works starts.
 - c. **geotech** - we can't ask a geotech firm to place boreholes at random on a site. We need to be able to draw cross sections with the information they give us. If the information is contradictory more boreholes are required, otherwise the geotech report is not telling us the full story.
 - d. **scrutinize old reports** - not all the information given to a buyer by a vendor after land acquisition should be taken for granted. Existing reports should be scrutinised and compared. For the record, I have come across forged reports in the past.
 - e. **potholing** - where water is dripping, a potholing survey should be carried out, for healthy and safety reasons. If it is close to third party buildings, for protection of adjoining properties.
3. **Insurances** - insurances exist to protect parties when things go wrong. The following notes should be carefully considered by a developer about to start construction works:
- a. **contractor's work insurance policy** - most of the time important details of an insurance policy will never be disclosed to the principal if the insurance has been taken out by the contractor. For some awkward reason, insurance companies don't allow policyholders to exhibit their insurance policies. To work around this problem it's better for the principal to take out insurance for the construction works and deduct the cost of doing so from the agreed contract sum with the contractor.
 - b. **third parties** - next door property owners and relevant authorities should be named in the insurance policy.
 - c. **use an insurance broker** - insurance brokers understand construction works and the risks involved. We should seek their advice.

Construction works below the ground requires a different skill set and a different know-how than works above ground. To make matters worse, ground works are often not properly addressed in most construction contracts.

We have a tendency to think that misfortune will affect others rather than us, but how many times have I heard of a similar story as described in this paper?

Experience tells us that when works below ground are mismanaged, more often than not, the site will remain a site for a long time. Ensuring that the correct due diligence is undertaken before construction work starts is paramount.