

Central Connector Project



The Central Connector Project in progress.

Project: Central Connector Project
Publication date: 2010
Client: Auckland City Council
Consultant: BECA
Contractor: Fulton Hogan
Footpaths, kerbing: John Filmore Contractors (JFC)
Drainage, storm/waste water: MarchCato Contractors
Region: Auckland
Sector: Infrastructure/Public Building
Final Contract Value: \$36.85m
Tender: Traditional
Construction timescale: April 2008 to September 2009
Form of Contract: NZS 3910

In our 25th Pathfinder Project, we investigate how the project team on Auckland City Council's Central Connector project used relationship contracting, pre-planning and stakeholder management to deliver a project with 40% more work than the original scope and five weeks earlier than originally planned too.

Background

The Central Connector is a bus rapid transit link between Britomart Transport Centre in Auckland CBD and the commercial suburb of Newmarket. Stretching over five kilometres, the route provides dedicated transport infrastructure for 2,600 bus trips per day and services more than 65,000 commuters daily. The project was part of the long term strategic roading programme for Auckland City where bus road and rail links are designed to provide free flow of people to and from the City centre, linking the Newmarket shopping precinct, Auckland Hospital and Universities (Auckland and AUT) with the Downtown Britomart Rail Transport Hub.

The project included street widening, construction of bus lanes, pavement reconstruction, upgrading footpaths, sewer separation and street furniture renewal together with significant services relocation and renewal. This included all of the major power, gas, communications, water and wastewater services. The Central Connector now saves over 14 minutes in travel time between Britomart Transport hub and the Newmarket retail zone.

Challenges Faced

Pre-planning

The manner in which the project was established had a profound impact upon the successful outcome. The level of pre-planning and collaboration within the project team and with the broader network of key stakeholders greatly enhanced the delivery of the project. In recognising the importance of the disruption the

project could cause, it was agreed that project planning would commence well in advance of any on-site work.

Planning started three months ahead of the construction phase which included the completion of partnering workshops which covered stakeholder strategy, project programming and project setup. These workshops were critical to successful project delivery and it was important that all project participants were engaged. Over 30 companies were involved throughout the duration of the project and they were all involved and committed to this approach throughout the preplanning phase.

Initially there were three facilitated partnering workshops completed by the team. This also included all of the affected utility companies who formed part of the Project Partnering Charter. By recognising the importance of the utility companies the project team were able to work with them to complete long term planning along the route of the Central Connector.

Partnering principles

Auckland City Council awarded the traditionally tendered contract with the requirement to utilise partnering principals that were aligned to the key outcome deliverables of the contract. This approach proactively enabled the project team to provide ongoing input into the design refinement process and for the team to manage and maintain stakeholder satisfaction throughout the duration of the works and was critical to the success of the project and the partnering approach.

The foundations for success were laid before work commenced through the partnering workshops and the establishment of key

performance indicators that were aligned to project objectives and clearly understood by the team in driving performance on the project.

The partnering principals were reviewed and reinforced throughout the duration of the project at all levels in the project team via ongoing partnering meetings at a project management and governance level every month. Communication and delivery of the promise between the project participants was a fundamental cornerstone of the partnering contract.

Wider community engagement

The project involved significant stakeholder and construction challenges that included resident satisfaction, business continuity, health and education facilities and historic buildings, trees and cemeteries. The team entered this project on the basis that the wider community and affected stakeholders would ultimately influence and enable the successful delivery of the project. Client and stakeholder satisfaction was critical to success and this also included many utility companies that were also affected by the project.

The utilities companies were engaged in the project to future proof the road and relevant services under the surface. They were all encouraged to become an integral part of the project team and without exception they all accepted and became part of the team, signing the partnering charter in the process and worked collaboratively with the team. In each case they reviewed their forward plan and implemented a service upgrade programme which would mesh with the construction programme. A good example of this was when Vector required the construction of a major service trench to ensure that future requirements were satisfied rather than disrupting a vital transport route again at an undetermined point in the future.

In addition, much of the work required by the utility companies was completed by the project team which enabled better project co-ordination and enhanced value in the delivery of the project.

Developing a team ethic & co-location

The shared vision for the Central Connector project was agreed by the project team together and utility company representatives was to:

- Create a high quality, efficient, sustainable Transport Corridor that people want to use;
- Establish a Services Infrastructure within the corridor that supports future needs, so that people can enjoy living and working;
- A memorable project we can all be proud of, which enhances the environment and preserves the city's heritage along the route.



Auckland City Council was an integral part of the project team and provided daily input along with a dedicated on-site ambassador to assist with the successful implementation of the project. This close working relationship ensured that there were no barriers between the client and the delivery team. Shared offices also contributed hugely to the 'one team' attitude and approach.

Through the partnering workshops it was recognised early that relationship contracting principals had to be adopted to achieve the required outcomes. In this respect it was agreed that an understanding of the respective challenges facing each member of the project team and that timeliness of decision making were vital aspects to forming a unified project group. To facilitate this relationship a shared site office was established where the contractors, client and engineers were all co-located. This initiative fostered close and respectful relationships which avoided extensive correspondence and greatly sped up decision making processes. Whilst this approach is frequently observed in Alliancing projects, it is innovative for a traditional form of contract.

Rewards

There was a systematic approach to the celebration of milestones and associated rewards. This approach which was embedded throughout the team structure and was designed to maintain high morale throughout the duration of the project. Simple yet affective measures were put in place to drive this aspect of the project. 270 Central Connector branded polo shirts (with no individual company logos) were provided to reinforce the 'One Project Team' approach. Milestone celebrations were routinely held and individual awards were given for outstanding performance. Every team member and their families were invited to the opening ceremony of the project.

Whole of life approach to design and road surfacing

The design solution was based on a whole of life approach to provide a total design solution. The design team worked with the construction team to overcome buildability issues and to design and plan the works in the most co-ordinated manner. Shared occupation of the site office provided the mechanism for a constant 360° review of design and build decisions.

Also, the original project had a limited road resurfacing scope, which was subsequently expanded to provide for the entire length of the project. This approach was adopted after the arrangements with the utility service companies to pre-plan their works and provide a five year moratorium on service changes. This together with a desire to create a "complete" road and budget availability meant that the project team were able to complete sealing the entire length of the project in a cost effective manner. In addition, stress absorbing membrane interface, (SAMI) seal was used to achieve a quieter crack free finish over sections of existing concrete roads. This initiative provides a better long term solution than other seal finishes.

Successful Outcomes

Site limitations

Unlike many traditional large-scale roading projects, the Central Connector works were required to be completed in an intensively populated and extremely busy section of Auckland's transport network. There was no opportunity to effectively separate the work site from the day to day activities of the travelling public and pedestrians.

Real outcomes

The project involved a 40% increase in work scope and was delivered 5 weeks ahead of the original programme. This was achieved from the outset in the shared project team vision and non-company centric approach. It was the project that mattered, not the companies delivering it. There were no lost time injuries on the project which represented over 250,000 man-hours worked, with only two minor injury cases.

Urban Design Focus

It was clearly recognised that this was more than an engineering project; urban design considerations were equally as important as the engineering solution. This project was the first of its kind to have an Urban Design Panel Review completed. The result was acceptance of an integrated design which accomplished both the utilitarian and aesthetic objectives required.

Dedicated Stakeholder Management Team

In recognising that communication would be a critical element of the project it was resolved to form a dedicated stakeholder management and communication team. They understood the challenges facing the project team they were able to translate these in a meaningful manner to affected parties and receive feedback which was used to improve on-site management of construction activities and improve safety and stakeholder satisfaction.

The result was an informed community and a project team who could move forward with confidence that the work being undertaken was fully understood by the stakeholders. Up to 70,000 people were communicated with on a weekly basis and regular meetings with key stakeholders.



Summary of Benefits

This project implemented a whole host of benefits during the pre-planning and risk mitigation phases (and associated measures) that created the successful outcome. These included:

- Community and stakeholder engagement
- Pre-planning/partnering workshops prior to construction work starting
- Engaging utilities companies
- Whole of life principles to future proofing assets

Avoiding future disruption and inconvenience to the public and community stakeholder groups have also been critical factors in delivering success on this project.

Key principles for repetition

- Partnering approach on a traditionally procured project
- Embed the client into the project team
- Focus on whole of life principles to future proof future works
- Pre-planning to manage multiple key stakeholder relationships
- How continuity within the team is critical to success
- Incentivisation around team ethics
- One project; One team; Our success

Key Lessons & Possible Improvements

Key lessons to take forward from this project have been identified as:

- **Pre-planning:** The rigorous approach to pre-planning on this project and getting buy-in from all project participants drove success on this project. It created the foundations for the project team to succeed and deliver. This approach also engaged wider stakeholders.
- **Partnering approach:** The partnering and 'one team' approach with co-located offices are commonly practices seen on alliance projects and arrangements, however, given the more traditional nature of this project this is innovative and a great example how these more collaborative working practices can be implemented on traditional construction projects.
- **Community and stakeholder management:** Having a stakeholder management role within the team enabled the project team to plan works and to manage the expectations of the local community and businesses. Engagement of the utility companies at an early stage was also a key benefit to future proof the utility infrastructure whilst this project was ongoing.
- **Whole of life principles:** Used in future proofing the utility network and in the design/delivery of the road surfacing.



Conclusion

Already an award winning project, the Central Connector team demonstrated the core values around collaborative working and partnering that you would expect to see on major alliancing projects. That this was achieved in a traditional contract environment and coupled with engaging the utility companies to future proof the network to avoid future disruption and inconvenience was a great achievement for the project team.



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