

Architect's report no.16

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project	WAITAKERE CIVIC CENTRE	file ref	0311-F06-016-JM
job no.	0311	date	19-05-06
client	WAITAKERE CITY COUNCIL		

1.0 Client/Brief

- See below.

2.0 Design Issues

- Documentation of the cabinetry for the One Stop Shop is completed. All cabinetry items have been issued for construction.
- The issues with the road levels to the Japanese Garden and Civic Square have been resolved by amending the road levels.
- Documentation of the Smokers Gazebo is being completed for building consent.
- The glass screen to the One Stop Shop has been documented and issued for construction. The drawings have also been issued to the Arts team.
- A preliminary meeting to discuss locations for the Councils artworks has been held. Detailed requirements to be confirmed.
- Preliminary details of the office for the 7th Director have been agreed. This is now to be documented for consent.
- A new sign has been requested for the intersection of Henderson Valley Rd and Smythe Rd.
- Work on the building signage with dallowboss is ongoing.
- Prototypes of the Council Chamber furniture have been approved and work is progressing on the finalization of the design together with IMO.

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3.0 Value Management

- The item is now closed.

4.0 Coordination

- Work on the co-ordination of final details with Canam and the various consultants and sub-contractors is continuing.

5.0 Programme

- Canam have confirmed that some areas will not be complete on May 29. This has been discussed with WCC and an outline program has been proposed that will not affect the move from Council's existing premises to the new Civic Centre.
- Work is proceeding with the site works. The asphaltting of the southern carpark is nearly complete. Work has begun laying the kerbs along the northern face of the Admin building. There have been significant delays to the external works due to issues with the building work on the adjoining site.
- Erection of the Link Bridge canopy structure is nearing completion.
- The glazing to the level 3 bridge has been installed.
- The artist designed carpet in the Chamber and Chamber Lobby is now being laid.
- The curved battened wall to the chamber is now complete.
- Installation of the equipment in the level 6 and level 2 kitchens is underway.
- Final services such as speakers and the chamber light fittings are being fitted.

6.0 Shop Drawings

- This item is now closed.

Canam Construction: Waitakere Civic Centre

Contractors Report : 25th May 2006

Report Period : 11/5/06 to 25/4/06

Prepared by : Nick Page

Date of report : 25/5/06

1.0 Contract status

- 1.1 Contract acceptance letter received 7 October 2004.
- 1.2 Insurance Policy cover notes sent on ATC No6 18/10/04. Insurance is effective from 26/10/04.
- 1.3 Bond - The contractors bond has been issued.
- 1.4 Agreed Contract Commencement date - 3 November 2004
- 1.5 Original Completion date - 12 April 2006
- 1.6 Extension of Time Approved -30 days.
- 1.7 Approved completion date - 29 May 2006.
- 1.8 Extension of time - As agreed we will be submitting an extension of time claim to cover the delays to practical completion. The claim will be based on the delays caused by recent variations and the delays to the sitework caused by the collapse of the adjacent site and their services installation work and the necessary remedial work.
- 1.9 As advised at previous site meetings etc, the delay in finalising the details and other delays in some areas such as the link bridge roof, ceiling etc and related entry areas, final joinery items, one stop shop walls, external works, drive by area, street furniture, green roof and final services commissioning to some areas etc will mean that these will not be able to be completed by 29 May 2006. Access will be available for the installation of the demountable partitions from 1 June 2006 as agreed but we now expect to apply for practical completion during the week commencing 6 June 2006. There will still be some items incomplete at that date and we will confirm the deferred works required and the completion dates that can be achieved for these prior to 6 June 2006. However we confirm that we expect to be ready for the first workers to occupy the building on 23 June 2006 and the public opening on 24 July 2006.
- 1.10 We will be submitting a certificate of Public use application on 25 May 2006 to allow WCC to commence public use of the building by 25 June 2006.

2.0 Financial

- 2.1 Last Claim Submitted- Our seventeenth claim was submitted on 3/5/06.
- 2.2 Certificate due date -19/5/06
- 2.3 Payment due date -received on 26/5/06
- 2.4 Outstanding payment issues - Nil
- 2.5 Variations - Variation up to about CI 1100 have now been priced and submitted for approval. Work on the balance of the CI's is continuing. We have employed an additional QS to assist in resolving all the outstanding CI costs.
- 2.6 We have confirmed AVS 1 to 6. There is still a backlog of claims to be confirmed.

3.0 Territorial authorities

- 3.1 Certifying Authority - Waitakere City Council
- 3.2 Building Consent Issues - Issued 2 November 2004 excluding drainage. The drainage consent was issued on 2 December 2004.
- 3.3 Resource Consent issues - We have received the allocation of issues to the parties (CI 41G) and are dealing with those identified for Canam.
- 3.4 ARC inspections - None in the last 2 weeks.

4.0 Programme Status

- 4.1 Construction Start Date – 3 November 2004
- 4.2 Projected Construction Completion Date – 6 June 2006. See 1.9 above.
- 4.3 Progress over the last 2 weeks has been generally steady, although poor weather has significantly hampered completion of all external work. The wet weather has also caused considerable problems for siteworks in the last 2 weeks. Progress on the Admin interior has been good with the exception of the areas still affected by window installation, particularly stair 1, and adjacent to the link bridge. The Civic building is now almost complete. Completion of the single level area is progressing. Work to the link bridge is now progressing although it will not be able to be complete due to the lead time for ceilings, glazing etc.

4.4 Construction Progress

Carpentry & Fitout Admin

L2 to L5 are virtually except the one stop shop area and cleaning is underway. L1 and L6 are expected to be completed early next week. Completion of the stairwells is progressing and is expected to be complete in the next two weeks with the exception of the Klik tube to L5.

Carpentry & Fitout Civic

L1 and L3 are complete and L2 including the AV joinery will be completed next week. The stairwells will be completed next week.

Siteworks

Forming of the main Southern carpark is complete. Pavement construction on the Northern area of the building is continuing. The collapse & water main work for the McRennie site delayed all work in that area from 7th April until Friday 28th April and bad weather subsequently has further delayed progress. Exposed aggregate paving has also been severely delayed by the wet weather. The delivery of the street furniture & light poles from the nominated supplier will be delayed beyond the end of May which will cause problems with the adjoining paving. Topsoiling is underway but we understand that most landscape planting is on hold pending a review of the scheme by WCC.

Windows & Cladding

Window installations to the Admin & Civic are now nearing completion, with only stair 1 and the bridge doors to be completed, although a considerable amount of remedial work is still to be completed. The windows to the bridge end of the link are now being done as part of the bridge glazing contract, and will not be installed until late July.

Brickwork is complete except for remedials. Alcopla installation is nearing completion. Louvres are being completed on both the Admin & Civic.

Roofing

The link bridge roof membrane work has started but has been completed and the metal roof has been delivered and will be laid when weather permits.

Services

Second fix services are continuing and commissioning is continuing. We have now received final computer room details and final installations are underway.

4.5 Planned for the next three weeks.

List of items planned to commence or continue in the next three weeks;

- Completion and handover of all areas except deferred works

5.0 Subcontractor's engaged

5.1 Subcontractors engaged since the last report; Nil

6.0 Weather conditions / delays

6.1 General weather conditions during last fortnight –. The weather in the last two weeks has been generally wet with the exception of one 3 day period, continuing to slow progress on the siteworks and exterior of the admin building.

6.2 Days lost due to inclement and/or adverse weather conditions in last period – Little progress was made on external work on 12th, 15th, 16th, 22nd, 23rd & 24th May.

7.0 Health & Safety

7.1 Accidents during last period – None this period

7.2 We have had no graffiti attack.

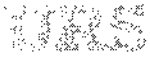
8.0 Information required / outstanding

We had a technical issues meeting on 18/5/06, there are still a number of outstanding issues that need to be resolved (Refer minutes of that meeting).

The following items are critical to progress. All of them will affect the date practical completion can be achieved and final completion of the contract is dependent on when these are resolved:

Toilet & compliance signage

L6 deck access ramp details



18 May 2006
Project No. 42023904

Architectus Auckland
P O Box 90621
Auckland

Attention: Malcolm Bowes
Director

Dear Malcolm,

Subject: Waitakere Link Bridge Project- Air Quality Issues

URS New Zealand Limited (URS) has been engaged by Architectus to provide professional advice on the potential air quality issues associated with the Link Bridge from the new Waitakere Civic Centre to Railside Avenue. In particular URS has been asked to assess the potential for effects associated with dust from train brakes, and the effects from the train exhaust emissions.

The following letter report sets out URS' assessment of the effects of the two types of emissions.

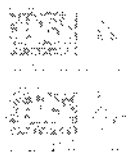
1. Train Brake Emissions

Train brakes, as with all friction braking systems, rely on friction between two surfaces to be effective. As this is a mechanical process there is an inevitable loss of material from the surfaces, predominantly this is from the brake shoes or pads, as these are disposable items. The potential for effects from this lost material depends to a large extent on two factors, the amount and composition of material lost.

1.1 Brake Composition

There appear to be two main types of brake shoes that are used internationally. These are composite and cast iron. The cast iron shoes, as the name suggests, consist primarily (over 95%) of iron, with the remainder carbon and silicon. There may also be extremely small quantities of other metals present, but these will be present as contaminants in the iron, rather than as deliberate additions.

The composite shoes are primarily a phenolic resin with a variety of additives to give the necessary mechanical properties. Because these are proprietary products, it is difficult to





Malcolm Bowes
Architectus Auckland
18 May 2006
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obtain exact compositions, but the types of additives that are listed as being included in the composite brake shoes includes; carbon black, red iron oxide, graphite, and kaolin.

URS has talked to Toll NZ¹, who indicate that in New Zealand, all locomotives and passenger carriages are fitted with cast iron brake shoes. Composite shoes are fitted on some of the freight wagons.

1.2 Brake Shoe Emissions

Again there is relatively little information available on the amount of brake wear that occurs from trains. URS has searched for comparable data and determined that the only data that is available is for heavy duty diesel trucks, which have an emission factor of 0.046 grams per kilometre. Therefore, to provide a level of conservatism, URS has doubled the emissions factor i.e. carried out the assessment using a factor of 0.092 grams per kilometre.

On this basis, if it is conservatively assumed that the trains apply their brakes for 500 m on either side of the platform, the emission per train would be 0.092 grams.

Based on the current train timetable there are 59 passenger trains a day passing through the Henderson station. Therefore, the maximum emission that could occur during a day would be 5.43 grams. Based on the timetable there is a maximum of six trains per hour, which means that the maximum hourly emission would be 0.55 grams.

1.3 Effect of Brake Emissions

The levels of emissions that are likely to occur will be similar to levels adjacent to other train stations on the Western Line. The effects of these emissions will relate to the potential for soiling in the area around the track. As the emissions will consist primarily of iron (which is quite dense) it is unlikely that this dust will be easily mobilised, and therefore it is likely to settle in the ballast around the tracks. This means that there is little potential for there to be any effects for people using the overhead walkway.

Even if these emissions were to remain suspended in the air, which is extremely unlikely, the fact that the station area is open means that while there will potentially be some localised increase in iron oxide concentrations close to the track as the trains brake, the concentrations in the area as a whole are extremely unlikely to increase significantly.

Therefore, URS considers it to be extremely unlikely that there will be any adverse effects associated with brake emissions.

¹ <http://www.tollnz.co.nz>

² Press Comm. Kevin Kearney – Toll NZ, Hillside Works Manager

2. Train Exhaust Emissions

Currently all of the trains servicing the Auckland metropolitan area are diesel fuelled. There are plans at some future stage to electrify the lines, however, no firm date has been set for that at this stage. Therefore, URS has carried out the assessment on the basis of the current train fuelling arrangement. URS notes that while trains have diesel engines, these engines are connected to generators, with all the motive power being electric.

2.1 Exhaust Emissions

The exhaust from a standard train engine will be similar to that generated by any large diesel fired engine, and consist of a range of compounds. From an air quality point of view the main emissions will be carbon monoxide, nitrogen dioxide, and fine particulate matter. There will also be small emissions of sulphur dioxide, however due to changes in the diesel specifications, these emission are considered insignificant. In reality these emissions are also emitted in varying quantities by all vehicles, and there is nothing chemically that distinguishes the emissions of these primary pollutants from trains or road transport.

Based on the New Zealand Railway emission factors developed by the Ministry of Transport, URS has estimated the likely emissions on the Western Line through Henderson on a daily and hourly basis using the train numbers discussed earlier. These are presented in Table 1, using similar assumptions to the brake emissions that the station might be affected by emissions from the trains for 500 m either side. This is considered to be an extremely conservative assumption.

Table 1 Engine Emissions at Henderson Station

Pollutant	Hourly Emission (kg)	Daily Emission (kg)
Carbon monoxide	0.25	2.5
Nitrogen oxides	2.46	1.2
Particulate matter	0.006	0.06

2.2 Effect of Exhaust Emissions

URS does not consider that there will be any specific health effects associated with the emissions from the trains. This is primarily because the station is located immediately adjacent to Railside Avenue in Henderson. Based on data supplied by the Waitakere City Council there are an estimated 14,200 vehicles per day on that road. As traffic effects are generally accepted as influencing air quality for up to 200 m with the majority of effects

being experienced within 50 m, the emissions from the road will impact on the station. Using the traffic data supplied by Waitakere City Council, and vehicle emission factors developed by the Ministry of Transport, URS has calculated the potential vehicle emissions and presented them in Table 2.

Table 2 Emissions from Traffic using Railside Avenue

Pollutant	Hourly Emission ² (kg)	Daily Emission (kg)
Carbon monoxide	2,644	26,438
Nitrogen oxides	978	9,784
Particulate matter	54	547

As can be seen these emissions are significantly greater than those from the trains and therefore it is extremely unlikely that the emissions associated with the trains will result in air quality effects over and above those that might already occur as a result of the vehicle emissions.

However it is important to note that there is no evidence that traffic emissions in Henderson are resulting in health effects. This is supported by the fact that despite the Auckland Regional Council's ambient air quality monitoring site being located adjacent to Lincoln Road (which has greater traffic volumes than Railside Avenue) the concentrations measured at are all less than the New Zealand standards for these compounds.

Table 3 Ambient Monitoring Data Henderson

Location	Site type	Units	Maximum	Annual Average	Standard
Nitrogen dioxide	1 hour average	µg/m ³	82.7	16.6	200
PM ₁₀	24 hour average	µg/m ³	45.3	17.5	50
Carbon Monoxide	8 hour average	mg/m ³	4.0	0.6	30

² ARC data indicates that the worst case 1 hour traffic kilometres travelled corresponds to approximately 10% of the 24 hour average traffic volumes. Therefore the hourly figures have been based on 10% of the AAIM supplied by Waitakere City Council.

Malcolm Bowes
Architects Auckland
18 May 2006
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However, there is the potential for users of the overpass to potentially experience two effects associated with train exhausts. The first is the observation of the visible emissions of particulate from the exhaust as the trains pull away from the station. The second potential effect is from odour associated with the exhaust plume, which again will be experienced primarily as the train pulls away.

While both of these effects result in amenity issues, there is no potential for health effects.

There is also the potential for the structure of the overbridge to become soiled as a result of the particulate emissions, if the trains are parked under the overbridge for periods of time, with the engines running. Whether this is likely to result in the need for more frequent cleaning of the overbridge than would occur if the trains were not present is impossible to quantify.

3. Conclusions

As a result of the above assessment URS considers that it is unlikely that there will be any adverse health effects for people using the pedestrian overbridge from Railside Avenue to the new civic centre.

Yours sincerely,

URS NEW ZEALAND LIMITED



Andrew Curtis
Principal Air Quality

All

**Waitakere Central
Transport Interchange
Contract SP 04012**

**Report On the Possible
Tagging of the
Link Bridge and Station**

19 May 2006

DRAFT

Written by Joe Schady, Senior Project Manager Special Projects

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1. Background and Terms of Reference

This report is prepared at the request of the Projects Special Committee Meeting held on 5 April 2006 with terms of reference further expanded at the Projects Special Committee meeting of 3 May 2006. The concern that this committee has relates to the high incidence of tagging and vandalism in Waitakere City. The link bridge and station, being situated in a high risk area on Rail and Council property, will be prone to this form of attack. The rail platform and walls bounding the rail corridor are also susceptible to attack. The terms of reference of this report are to (i) assess the likelihood of tagging of the link bridge, the platform and surrounds and (ii) devise means to reduce or counter any such tagging incidents.

2. Risk of Tagging

The project team approached the Tag Out Trust for advice on the risks faced. On 28 April 2006, Joe Schady met with Carl Bryant of the Tag Out Trust on site at Henderson Station and inspected the link bridge and station surrounds. This report presents the findings and the guidance offered by the Tag Out Trust.

Although the link bridge is only partly completed at time of writing, it already presents an attractive series of exposed facades for taggers to attack. The location of the bridge in the rail corridor and on Council land in a highly visible and accessible location makes this bridge susceptible to a high risk attack. The new platform soon to be constructed at Henderson is also likely to be attacked. According to the Tag Out Trust the following elements of this area are at risk:

- All accessible off shutter concrete surfaces (to a height of about 4.0 metres) such as columns, the pier protection wall, and plastered finishes of stairways and escalators of the link bridge are likely to be tagged.
- All accessible glazing of the escalator structures, of the bridge and the lift doors (which are glass) are likely to be scratched or etched or attacked and damaged by hard objects.
- All accessible steelwork columns, beams and portal frames over the escalators are likely to be tagged.
- All vertical faces of steps are likely to be tagged.
- All accessible light gauge coloured steel or aluminium cladding of the lift shafts is likely to be tagged.
- All steel columns of the Wellington Shelters are likely to be tagged.
- Steel columns of the four new type APN Hoardings are likely to be tagged.
- Timber benches and seating is likely to be tagged.
- Boundary walls of the Civic Centre facing the rail corridor is likely to be tagged.
- The shelters, benches and informative signage displays on the new platform are likely to be attacked. Note this platform is the responsibility of ARTA.

3. Mitigation Measures

The following measures are suggested by the Tag Out Trust to minimise or reduce tagging.

3.1 Lighting and Cameras

The link bridge and platform will be served with substantial lighting of the structure both elevated and at ground level. In addition the interior of the bridge will have four remotely operated cameras able to view the interior of the bridge and the escalators while ARTA will have cameras placed to record activities on the platform. These devices will assist to some degree in reducing tagging attack and hopefully permit apprehension of offenders.

3.2 Fencing

Ontrack intend to fence the rail corridor to prevent access by the public to the rail corridor, however this is not expected to have any measurable deterrent effect on possible tagging operations as taggers easily climb over fences.

3.3 Security Patrols

Regular security patrols of the bridge are likely to strongly reduce the attack threat. We understand that Council intend to patrol this bridge on a regular basis each evening. It is not clear if the platform will be patrolled by Railway or ARTA staff. ARTA has been approached to advise on this matter.

3.4 Open Sight Lines

The bridge, platform, transport interchange and surrounds are designed to be highly visible to the public from Railside Avenue. The old platforms, old shelters, taxi office and most trees are planned to be removed at some point, affording clear sight lines of the new bridge and platform. Discussions with Ontrack indicated that they were looking to ARTA to remove the old platforms. ARTA has advised that they are unsure as to how or if this will take place and that further discussion is needed. Until the old platforms are removed, sight lines will be interrupted and this compromises station security. New "Wellington Style" shelters on the side walk will be glazed and will not obstruct sight lines from the side walk onto the bridge platform.

3.5 3M Scotchgard Protective Film

The Tag Out Trust recommends that all accessible glazing be treated with "3M Scotchgard Protective Film". This product provides a high degree of resistance against scratching, acid etching, and gouging and good resistance against graffiti. See attached brochure. The drawbacks are that the film needs replacement once severely scratched, however these costs are substantially lower than glass replacement costs. Scotchgard Protective Film is planned to be applied to all accessible glazing on the link bridge including the escalator tunnels and lift doors.

The Project Team attended a demonstration of this product on 11 May 2006 at the 3M laboratory in Glenfield. The writer, the project architect and the Council Security Manager attended the demonstration where the benefits of this product were suitably shown. The film afforded the following protection:

- Attack with keys – scratching of film was evident but did not penetrate to the glass.
- Attack with a broken CD (a common form of attack amongst the youth because of the hard surface produced) - scratching of film was minor and did not penetrate to the glass.
- Attack with the knurled striker mechanism of a lighter – scratching of film was evident but did not penetrate to the glass.
- Attack with a sharp knife - cutting of film was evident but did not penetrate to the glass.
- Attack with a sharpened screwdriver – scratching and some cutting of the film occurred under high pressure attack, but in on all attempts the glass was unharmed.

The project team is of the opinion that 3M film is warranted and will make a huge difference to protection of very expensive glazing.

3.6 Graffiti Guard Paint

The Tag Out Trust recommends that Graffiti Guard paint be applied to accessible areas of:

- Off shutter concrete surfaces such as columns, the pier protection wall, the Civic boundary walls and plastered finishes of stairways.
- Steelwork columns, beams and portal frames over the escalators.
- Vertical faces of steps.
- Light gauge steel or aluminium cladding of the lift shafts.
- Steel columns supporting the Wellington Style shelters.
- Steel columns supporting the APN hoardings.
- Timber benches and seats.
- Platform furniture.

Graffiti Guard can be coloured and can be supplied matt or gloss. The name Graffiti Guard is a misnomer as it does not prevent graffiti attacks but merely provides a very hard surface paint that is easier and faster to clean than ordinary paints.

ARTA was approached to advise if they would be applying graffiti guard to platform furniture at Henderson Station. Their response is positive in that high risk areas will receive treatment and that they intend to maintain the station free of graffiti.¹

3.7 Structures at Height

Where possible, structures such as shelters should be elevated well above reach point of two taggers, one standing on the shoulders of another. The interior ceiling of the link bridge is above this height and the butterfly roof of the Wellington Shelters is at the limit of accessibility. The upper surface of the glazed escalators roof may be reached by taggers

¹ Private communication ARTA Rail Project Manager 19 May 2006.

and this roof may also need consideration to be protected by 3M Scotchgard Protective Film.

4. Scope of Protective Work and Costs

ITEM	DESCRIPTION	COSTS
A	Protective measures already contracted and applied or to be applied	
1.	Lighting and Cameras	Included in Link Bridge and Station Platform by ARTA.
2.	Fencing	Nil cost to Council as fencing provided by Ontrack.
3.	Security Patrols	Included in Civic Centre costs
4.	Open sight lines	Nil cost as this element is designed in the structure.
5	Removal of old platforms to give clear sight lines.	To be undertaken either by Ontrack or ARTA.
6	Graffiti Guard Paint to Link Bridge.	Included in Canam price.
7	Graffiti Guard paint, applied to boundary Civic Centre walls facing the rail corridor.	Already applied
8	Graffiti guard paint to Wellington Shelters and benches etc. in streetscape.	Will be included in future streetscape contract
9	Structures at height	Nil costs as this element is designed into the structure.
10	ARTA protective measures to platform furniture.	ARTA cost to apply graffiti guard and to maintain
B	Protective Measures Extra to Contract	
11	3M Scotchgard Protective Film to Council link bridge and glazing on Civic Centre link bridge. See quotation as annexure A	\$63,600
12	Total Additional protection costs	\$63,600

The total preventative up front cost to the Council is \$63,600. Compared to the "do nothing" alternative where numerous glass panels may be scratched, or cracked and steel and plastered surfaces tagged, with estimated annual repair costs of about \$50,000, it is suggested that application of Graffiti Guard paint and 3M Protective Film is a cost effective solution. The "payback" period is 16 months and is considered good value. The intention is that this film should be applied shortly after completion of the Link Bridge.

5 Exclusions

This report excludes any costs of maintenance by the Tag Out Trust.

6 Recommendation

The project team recommends that funding of \$63,600 be granted in order that additional anti graffiti measures by way of 3m Film be applied to selected glazing surfaces be taken to safe guard the link bridge from attack by taggers and vandals. This approach has the support of the Tag Out Trust.

Architect's report no.06

project	WAITAKERE CITY RAIL BRIDGE	file ref	0355-F06-006-FC
job no.	0355	date	18 MAY 2006
client	WAITAKERE CITY COUNCIL		

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1.0 Client/Brief

- Artwork consideration is with WCC
- Stevies Reserve landscaping contract documents have been prepared by Wraight and Associates and a Variation price request for this work submitted to Canam.
- Work on redesign of canopy glazing to reduce rain ingress. Detailed design work has been completed. Price has been reviewed by WT Partnership and submitted to WCC by Canam. Formal sign off of price from WCC been received and a VO for the work issued. Detailed design work is completed and shop drawings have been submitted and reviewed

2.0 Design Issues

- Architectural drawings have been revised to show specific Kone lift / escalator requirements, and to coordinate with Ontrack / Jasmx confirmed specific platform levels.
- A coordination meeting has been held with Jasmx
- Structural drawings for the above have not been amended at this stage. Structural details generally remain unchanged but R.L datums do change.
- Revised glass canopy details. See Item # 1 above.
- Revision of sanitary sewer and stormwater drainage in the Stevies Lane area has been completed by CMM and an instruction has been issued to Canam
- Following site investigation and finite location confirmed of Telecom cables, CMM Canam and Architectus have agreed that escalators 3 and 4 will remain in the as currently designed position. Canam are currently reviewing the proposed methodology of construction near these cables
- At the request of Special Projects and the TagOut Trust, the design team is currently assessing 3M Scotchield Safety / Security film for application to vandal prone areas of glass

3.0 Value Management

- Additional savings will be instructed as identified.

4.0 Coordination

- We are continuing to work with Canam and the various consultants. Coordination with the Civic Centre team is ongoing.

5.0 Programme

- Canam report that they are currently running on programme.
- Escalator lead times are critical and need careful monitoring. An adjustment of work sequence will be undertaken to circumvent this. Principally redesigning glass spider fixing detail to allow making of glass panels without a site measure. Lift and Escalator shop drawings have been approved.
- Stevies Lane and Reserve are closed off and secure and the site fenced.
- Arboreal work to the Liquid Amber is complete. Minor further trimming will be required
- Remaining trees and vegetation have been removed following issue of resource consent.
- A public walkway along the side of 'Retrovision' has been created and is being maintained.
- All piling work with 5.0m of the centre line of the rail tracks is complete.
- Precast columns, walls and column heads and stairs are erected
- Temporary structure is in place
- Dycore, precast edge beams, reinforcing and concrete topping to the bridge are complete.
- The stair and escalator base structures to the platform area are complete

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A18

- Structural Steel to Stair access 4 is installed.
- Precast concrete and insitu concrete stairs are complete
- Solid plastering of concrete block walls is underway
- Lift shaft roofs have been constructed and Nuraply roofing applied
- Canopy steelwork is being fabricated but is not yet installed
- Glass components and glazing panels are being manufactured.

6.0 Shop Drawings

- Temporary steelwork drawings were submitted to us by Canam to comment on any implication on the final appearance. There were no significant implications.
- Escalator 1 + 2 shop drawings have been approved.
- Escalator 3 +4 shop drawings have been approved
- Lift 1 and 2 shop drawings have been approved.
- Pre-cast panel, column , column head, beams and stair drawings have all been approved.
- Stair Access 4 structural Steel shop drawings have been reviewed
- Glazing and glass shelf shop drawings are being prepared currently by GPL . 90% of glazing shop drawings have been submitted and reviewed.
- Dycore shop drawings have been approved
- Canopy steelwork shop drawings have been approved
- Alcopla shop drawings have been submitted and reviewed.
- Electrical work is progressing, with all rewire and conduit into structure largely completed.

Canam Construction: Waitakere Civic Centre – Rail Bridge

Contractors Report: 18th May 2006

Report Period : 4/5/06 to 18/5/06

Prepared by : Nick Page

Date of report : 18/5/06

1.0 Contract status

- 1.1 Contract acceptance letter received 12 December 2005.
- 1.2 Insurance Policy - By WCC
- 1.3 Bond – Covered by Civic centre until release of that bond.
- 1.4 Agreed Contract Commencement date – 12 December 2005
- 1.5 Original Completion date – Portion 1: 17 August 2006, Portion 2: 22 December 2006
- 1.6 Extension of Time Approved – The escalator delivery date remains as Monday 12th June on site. This would theoretically result in the stage 1 completion being delayed to 12 September 2006. However, we have agreed on a modified glazing detail to allow most of the glazing to be prefabricated, reducing the time required to complete the work after the escalator is installed. We are therefore projecting a Stage 1 completion date of 25 August 2006. We remain extremely concerned that platform construction issues and/or wet weather could result in other delays to the escalator area completion, thus further delaying Stage 1 completion. We will formalise an extension of time application once the platform sequencing issues are resolved which we hope will be within the next two weeks.
- 1.7 We are working towards provision of limited pedestrian access across the bridge from 24 July, which will require a certificate of public use to be in place. This date is extremely tight and will only be achievable if there are no delays to material deliveries or from wet weather. We envisage that work will be continuing on glazing etc to the bridge after that date but that temporary barriers and hoardings will be able to be installed to allow limited safe use of the bridge during working hours only. We would expect the bridge to be closed to the public outside working hours until Stage 1 is practically complete.
- 1.8 Approved completion date – As 1.5

2.0 Financial

- 2.1 Last Claim Submitted- 2/5/06.
- 2.2 Certificate due date – 12/5/06.
- 2.3 Payment due date – 20/5/06.
- 2.4 Outstanding payment issues – Nil
- 2.5 Next Claim to be submitted – 2/6/06.
- 2.6 Variations – Other variations are being priced progressively as they arise. We are yet to receive formal confirmation of acceptance of most of the VO costs.

3.0 Territorial authorities

- 3.1 Certificating Authority - Waitakere City Council
- 3.2 Building Consent Issues – Issued
- 3.3 On Track Approvals – Standard building & Engineering inspections are continuing.

4.0 Programme Status

- 4.1 Construction Start Date – 12 December 2005
- 4.2 An Updated Contract Programme showing progress to date is attached. The critical path on the program remains delivery and installation of the escalators. As noted above, Kone have advised that the first 2 have now been shipped and will be available for installation on 12 June 2006. We have now revised our methodology and program and are now targeting a

completion date of 25/8/06 for Stage 1. The structural steel fabrication is behind program due to significant delays with resolving the details for the shop drawings including the revised roof details. Erection of the steel is now expected to commence about 25 May. The side window glazing has been ordered. The current projected delivery date for the glass is the 7th July. Platform construction requirements have been advised to us recently and we are still trying to rework our methodology to allow our construction to proceed in parallel with the platform. We have agreed to the early removal of the main temporary structure and installation of a new separate protection structure constructed which will not hinder platform construction. We are also working with On Track to try and ensure that we can achieve the access we require for installation of the escalators and completion of the bridge and escalator enclosures. We are working towards having the bridge to be available for public use in a restricted form with a certificate of public use by 24 July 2006. We note that there is still a significant risk that bad weather or delays with the glazing could delay this date. This is 7 weeks earlier than the theoretical stage 1 completion date and almost 4 weeks before the contract completion date. We also note that the pricing of the glazing for the Civic Centre portion of the bridge was only been approved recently which will mean that it will not be complete until sometime in August. It should be noted therefore that any access will be subject to considerable restrictions and that temporary barriers etc will be required.

- 4.3 Projected Construction Completion Date – Portion 1: 25 August 2006, depending on the issues raised above, Portion 2: 22 December 2006.

4.4 Construction Progress

Site Establishment

The closure of Stevenson's lane remains in place. The temporary rail barriers are in place on both sides of the line.

Temporary Works

Main temporary structure remains in place.

Concrete Work

All of the in situ stairs have now been poured. Propping for the final section will remain in place until mid June.

Carpentry

Carpentry to the lift roofs is complete. Strapping for the Alcopla is underway.

Plumbing & Drainage

Critical drainage has been completed. The balance of the design revisions have now been received and will be commencing shortly.

Lifts & Escalators

The delivery date for the first 2 escalators has been confirmed as 12 June 2006. The second pair of escalators will be available for installation 1 October 2006. Lift delivery will be 26 June.

Electrical and Security

Preliminary installation of ducts has commenced.

Structural steel & Glazing

Shop drawings for the final approved window glazing system are complete & the glass has been ordered. Roof glazing drawings are due to be complete this week. Structural steel

fabrication has been delayed and some rework has been required due to the final glazing details.

Suspended Ceiling

The ceiling materials have been ordered.

4.5 Planned for the next three weeks.

List of work planned to commence or continue in the next three weeks.

- Complete roof structural steel installation
- Continue carpentry to strapping and gutters
- Complete waterproofing to lift roofs and gutters
- Solid plastering to complete
- Commence work on the barrier wall

5.0 Subcontractor's engaged

5.1 Subcontractors engaged since the last report;

All the main subcontractors for portion 1 are now in place on the project.

6.0 Weather conditions / delays

6.1 General weather conditions during last fortnight – The weather has been generally poor.

6.2 Days lost due to inclement and/or adverse weather conditions in last period – No significant time has been lost.

7.0 Health & Safety

7.1 H & S policy approved by On Track. The revised handrail & barrier details required due to the early removal of the main temporary structure have also now been approved.

7.2 Accidents during period – None this period.

8.0 Information required / outstanding

- Final Water supply details
- Finishes schedule. We are specifically awaiting confirmation of the finish to the nuraply & access hatches
- Confirmation & coordination of platform construction timing
- Ongoing site access.
- Confirmation of costs & risks associated with the treatment of stage 2 phone cables
- VPR pricing for landscaping