

## Roads of national significance



**Project update** 

March 2011

# **Experienced team delivering the Bay's new Link**

The Tauranga Eastern Link contract was awarded to the Fulton Hogan HEB Construction Alliance, a collaboration of six companies who are delivering the project under a design and construct contract.

Each company brings a vast amount of experience in major construction projects, both locally and nationally, to the Bay's largest ever roading project.

The design team is lead by URS Corporation and supported by Opus International Consultants. Together they will design the structures, earthworks, lighting, geometrics and drainage. Specialist support will be supplied by Peters & Cheung for the geotechnical design and Bartley Consultants for the road pavement design.



The head contractor for the project is Fulton Hogan, who has teamed up with HEB Construction as their construction partner.

The two companies will jointly undertake the construction which includes earthworks, ground improvements, drainage, structures and road surface. Staff from both companies make up the environmental, stakeholder, health and safety and administration teams and are all based at the project site office on Tara Road.

The NZ Transport Agency, Beca and Fulton Hogan HEB Construction Alliance teams who are leading the construction of the Tauranga Eastern Link.



# What's happening now?

#### Over the next three months visible work will include:

- Vegetation clearing and fencing along the Tauranga Eastern Link boundary to separate the construction zones from neighbouring properties.
- Constructing the trial embankments at Tara, Domain, Parton and Pah Roads. Monitoring of these will continue over the next three years. See page two for more information on trial embankments.
- Constructing wick drains at Domain Road. Wick drains are vertical tubes that allow water to drain from the soil.
- Constructing the haul roads from Domain Road to south of Parton Road, and Pah Road to the Kaituna River. Haul roads will help reduce disruption on the local road network.
- Relocating services (eg power, telephone, stormwater) in various areas along the route.
- Preparing erosion and settlement controls for earthworks, eg silt fences and sediment retention ponds.
- Completing the Tauranga Eastern Link site office and visitor information centre on Tara Road.

#### Behind the scenes:

- Ground improvements at the Domain Road roundabout and on both sides of the Kaituna River preparing for the construction of bridges.
- Finalising the design of the bridges, structures, stormwater and road surface.



Preliminary work under way - fencing along Pah Road

# **Challenging ground conditions**

## An estimated two thirds of the Tauranga Eastern Link will be constructed on highly compressible peat which is expected to be up to six metres deep in some areas.

To ensure the completed highway doesn't keep sinking and that we have a smooth and flat road surface to drive on, the peat needs to be compressed to a point where it can settle no further.

Compression will be achieved by placing mounds of sand (preload) up to four metres high on the soft ground and leaving it to settle.

As it's almost impossible to know the exact nature of the ground conditions and speed of settlement, trial embankments are currently being built along the route. Testing equipment will be inserted into the embankments to measure the amount and rate of settlement at each location. The measurements will help engineers determine when the ground has settled sufficiently so other work, such as constructing the road pavement, can begin.

The completed Tauranga Eastern Link will sit on compressed embankments which form the foundation of the highway once the preload material is removed at the end of the settlement process.



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Installing the instrumentation that will capture crucial settlement data. Fill material is then delivered to construct the trial embankment.



Surveyor monitoring the geotechnical equipment.



Tara Road trial embankment nearing completion.

# Support projects trucking along

Five of the seven Tauranga Eastern Link support projects got underway last year and three have already been completed. The combined total value of the projects is estimated to be \$28 million - not only giving the project a boost, but also the local economy.



#### Watermains and extensions

The first two projects to finish pushed through tough winter conditions, working in soft peat soil and wet weather to relocate Tauranga City Council's bulk watermain. A 2km section was relocated along Parton Road where the new Parton Road overbridge will be constructed. The second stretch was 5km alongside State Highway 2 (between Mangatawa and Domain Road), in preparation for the widening to four lanes.

Just in time for Christmas, Truman Lane extension was officially opened to traffic. The Lane now extends 1.3km into Mangatawa Lane, providing a safer driving environment for local Mangatawa residents. They no longer have to contend with state highway traffic to access their homes.

Well into construction is the Kaituna Road extension. Originally a paper road, it is located to the east of the new Tauranga Eastern Link highway. When open, the 2.1km extension will

provide access for properties that will be cut off from Pah Road by the Tauranga Eastern

### Stormwater management

To mitigate the environmental impact of increased stormwater run off created by the Tauranga Eastern Link various stop banks, drains and pump stations will have their capacity increased.

Works are underway creating higher stock banks along the lower Mangatawa drain, which carries stormwater from Mangatawa to the estuary. Maranui stormwater pond will be enlarged, and the existing pump station in the Kaituna flood plain is being upgraded by installing a fourth pump.

## Paengaroa weigh station

The existing weigh station will be relocated in preparation for the reconfiguration of the State Highways 2 and 33 intersection (from Whakatane and Rotorua) at Paengaroa.



One of the three existing Kaituna pumps out for maintenance. When in operation each can pump 1.5 cubic metres of water per second, emptying an olympic sized swimming pool in just over 27 minutes.

# Construction programme and timing

Construction is underway on the Tauranga Eastern Link. However, as 17km of the project travels through paddocks and undeveloped land, much of the work will be out of view to the general public.

# **Opening May**

The Tauranga Eastern Link information centre will soon be open to the public.

Located on Tara Road, opposite Doncaster Drive, come and see the latest construction photos, view the virtual 3D animation and detailed maps and designs.



Tara Road site office and visitor information centre under construction, February 2011.

## **Proposed construction programme for the next 12 months**



## Our contact details

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