

Lessons learned from one of New Zealand's most challenging civil engineering projects: rebuilding the earthquake damaged pipes, roads, bridges and retaining walls in the city of Christchurch 2011 - 2016.

## Central City newsletters for businesses and residents

**Story:** Business Support Campaign

**Theme:** Communications and Community

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A document containing examples of newsletters printed and distributed to inner city businesses/residents to prepare them for the upcoming SCIRT rebuild work and update them on the positive progress being made.

This document has been provided as an example of a tool that might be useful for other organisations undertaking complex disaster recovery or infrastructure rebuild programmes.

For more information about this document, visit [www.scirtlearninglegacy.org.nz](http://www.scirtlearninglegacy.org.nz)



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# Pipes, roads and bridges

Central City Newsletter | October 2013

*With the cordons down, work is set to ramp up in the Central City (the area between Bealey, Fitzgerald, Moorhouse and Deans avenues).*

*Rebuilding is a huge task on a scale never seen before in New Zealand. Rebuilding horizontal infrastructure (wastewater, fresh water, storm water, roads and bridges) is the foundation for other rebuild activities.*

*SCIRT is working fast on underground services and roads now so work can start/continue on key community, business and residential projects.*

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# What is the damage?



25 km of wastewater pipe needs to be relaid; 18 km needs to be relined



8 pump stations need to be constructed and 1 repaired



15 bridges require repair (8 of these are major repairs)



8 km of fresh water pipe needs to be relaid



5 km of roads need to be rebuilt; 14 km need to be restored; and 43 km of roads need repair

SCIRT is rebuilding Christchurch's publicly-owned, earthquake-damaged roads, fresh water, wastewater and stormwater networks and other infrastructure such as bridges.

SCIRT is a partnership between Christchurch City Council, Canterbury Earthquake Recovery Authority, New Zealand Transport Agency and contractors City Care, Downer, Fletcher, Fulton Hogan and McConnell Dowell.

*There is about \$160 million worth of earthquake damage to the infrastructure in the Central City. Much of the underground pipe network dates back to the 1890s and was mostly earthenware.*

*SCIRT will be repairing or replacing infrastructure using more resilient materials and methods so that it will be stronger in future earthquakes.*

**SCIRT work in the Central City will sometimes be challenging for businesses, residents and road users. These inconveniences are temporary and mean our city is being rebuilt.**



**Above:** Examples of broken pipes in the Central City. 80% of the Central City's wastewater network needs to be fixed. The wastewater network is operating due to temporary repairs and a lower demand. It will remain fragile until it is permanently repaired.

**Below:** An example of a brick barrel pipe dating back to the 1800s in the Central City.

# What SCIRT is fixing

## Wastewater, storm water and fresh water pipes

The biggest job is fixing the Central City's wastewater network. Most 'project areas' are determined by how the wastewater network operates in that area and most of the time this is not visible above the ground.

Many of the pipes are laid deep underground and rely on gravity to move the waste. Wherever possible, SCIRT is using a method known as pipe lining. This method is faster and less disruptive than trenching. It involves installing a plastic or epoxy liner inside damaged pipes to strengthen them.

In some areas, where the pipe has collapsed, or the slope of the pipe has changed, SCIRT will need to access and repair the pipes by cutting a trench in the ground. Trench repairs can be very disruptive as the pipes are generally under the road. It also takes longer to do the work.

SCIRT is building more pump stations to increase the resilience of the gravity wastewater network. More pump stations mean that pipes can be laid at steeper grades, which will be better able to withstand ground movement. The pipes are also being laid shallower, meaning they will be faster, easier and cheaper to repair.

Generally wastewater will be fixed first as it is deepest under the ground. Then comes stormwater and fresh water pipes before repairing roads in a 'one pass' approach, whenever possible.

SCIRT's role is to return the same level of service that existed before the earthquakes, except stronger and better able to withstand future earthquakes. In the case of pipes, SCIRT will replace older materials with longer lasting and more robust polyethylene or PVC piping.

## Roads

### *It's what's underneath that counts*

The majority of SCIRT work is not about the roads at all; most roadworks are in place to allow access to underground services that are often located in the road corridor.

Once the underground services are fixed, the road will be sealed up. Most roads throughout the city will be partially repaired or patched rather than fully reconstructed. Full reconstruction will apply only where there has been significant earthquake damage.

In some areas permanent storm water and road repairs will be put on hold until other rebuild work is done. For example, it may make more sense to wait until other vertical rebuilding activities are finished before fixing the roads permanently in an area, otherwise it would mean fixing the roads twice.

## Bridges

Work on the 15 bridges will be timed to keep traffic impacts to a minimum. The repair of each bridge is unique and depends on the type of bridge and type of damage.



*A typical trench being used to access services under the road.*



*A pipe lining site. A cable and winch pull the pipe liner through the existing pipe from the manhole.*

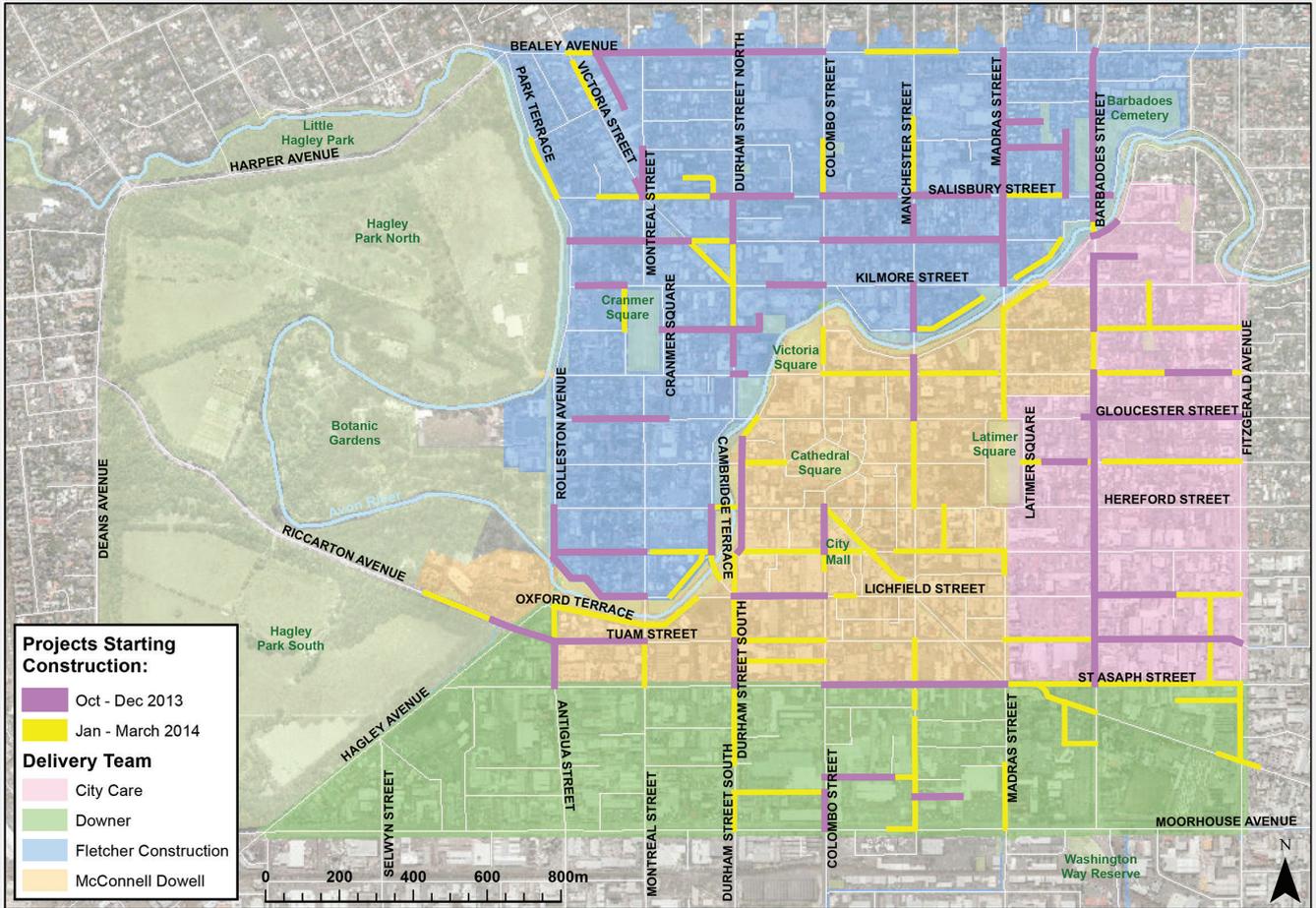


*Pipe lining work sites generally take up less space than open trenching.*



*Work is well underway on the Bridge of Remembrance.*

# Central City horizontal infrastructure rebuild schedule



Timings are estimates and are based on the best information available at this time.

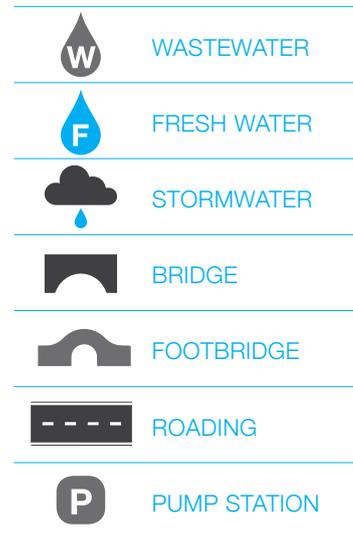
## Timing and coordination

There is a plan; everyone is working together to rebuild the Central City. SCIRT is working with Council, CERA, utility providers, private developers and land owners to coordinate and schedule its work (horizontal rebuild) as part of the bigger recovery process.

Doing things in the right order is important. Agencies are coordinating schedules so the rebuild progresses as quickly as possible. SCIRT work is being timed to support the delivery of other work such as the Anchor Projects and large private developments such as the Retail Precinct.

More detail about the order of works will be available in coming months. Work will ramp up significantly from October 2013. From then there will be up to 40 SCIRT work crews in the Central City at any one time to get the work done by the end of 2016. Most SCIRT work in the Central City will be finished by mid-2015.

Refer to the map above and information on pages 4 to 5 for details of when work is scheduled in the next six months.



# 6 month work schedule

Project	Project Area	Approx Start	Approx Finish	Delivery Team
	Moorhouse Ave, Madras St, Waltham Rd, Salisbury St, Bealey Ave, Fitzgerald Ave, London St, Warwick St, Swanns Rd, Stanmore Rd, Kilmore St, Tuam St	May-12	Oct-13	Fletcher Construction
	Conference St, Manchester St, Knox Ln, Kilmore St, Salisbury St, Peacock St, Cambridge Tce, Colombo St, Cranmer Sq, Chester St West, Victoria St, Beveridge St, Westwood Tce, Park Tce, Durham St North	Jan-13	Sep-14	Fletcher Construction
	Armagh St, Cambridge Tce, Cashel St, Worcester St, Durham St South, Rolleston Ave, Gloucester St, Montreal St, Hereford St, Durham St North, Armagh Ct	Feb-13	Feb-14	Fletcher Construction
	Triumphal Arch	May-13	Nov-14	Downer
	Kilmore St, Dublin St, Colombo St, Peterborough St, Durham St North, Chester St West, Montreal St, Airedale Pl, Manchester St, Cranmer Sq, Victoria St, Park Tce, Armagh St, Gracefield Ave, Dorset St, Ulster Pl, Peterborough Ln, Aberdeen St	May-13	Oct-14	Fletcher Construction
	Chester St West, East Cranmer Sq	Jun-13	Nov-13	Fletcher Construction
	Antigua Street	Jul-13	Apr-14	Downer
	Cashel Street	Jul-13	Nov-14	Downer
	Worcester St	Aug-13	Sep-13	Fletcher Construction
	Madras St, Salisbury St, Bealey Ave, Melrose St, Ely St, Stoneyhurst St, Packe St, Barbadoes St, Peterborough St, Kilmore St, Cambridge Tce, Amuri Park Ln, Moa Pl, Otley St, Dollans Ln	Sep-13	Jul-14	Fletcher Construction
	Quill Ln, Mortimer Pl, Coventry St, Welles St, Eaton Pl, St Asaph St, Allen St, Manchester St, Madras St, Atlas Ln, Rope St, Southwark St, Barbadoes St, Fitzgerald Ave, Ferry Rd, Alfred St, Dundas St, Williams St	Oct-13	Aug-14	Downer
	Lichfield St, Woolsack Ln, High St Cashel St, Kivers Ln, Colombo St, Struthers Ln, Tattersalls Ln, Tuam St, Durham St South, Mollett St, Poplar St, Cashfields Acde, High Street Acde, Madras St, Sol Sq, His Lordships Ln, Manchester St, Bedford Row, National Mutual Acde, Liverpool St, Ash St, Shades Acde, Montreal St, Oxford Tce, Plymouth Ln	Oct-13	Aug-15	McConnell Dowell
	Hereford St, Cathedral Sq, Oxford Tce, Manchester St, Colonial Ln, Ogb Ln, Tramway Ln, Gloucester St, Chancery Ln, Press Ln, Armagh St, Gloucester Acde, Kilmore St, Chester St East, Madras St, Colombo St, Worcester St, Westpac Ln, Latimer Sq, Gressons Ln, Strand Ln, New Regent St, Barbadoes St, Club Ln	Nov-13	Feb-15	McConnell Dowell
	St Asaph St, Hagley Ave, Colombo St, Horatio St, Halkett St, Moorhouse Ave, Durham St South, Montreal St, Balfour Tce, Stewart St, Wilmer St, Alcester St, Acton St, Bath St, Winchcombe St, Selwyn St, Waller Tce, Walker St, Antigua St, St David St	Nov-13	Feb-15	Downer

Project	Project Area	Approx Start	Approx Finish	Delivery Team
	Armagh St, Fitzgerald Ave, Cashel St, Chester St East, Oxford Tce, Tuam St, Kilmore St, Latimer Sq, Gloucester St, Lichfield St, Hereford St, Worcester St, Barbadoes St, Duke St, Bangor St, Dawson St, Clarkson Ave, Gilmours Ln, Nova Pl	Nov-13	Aug-14	City Care
  	Moorhouse Ave, Quill Ln, Mortimer Pl, St Asaph St, Hagley Ave, Gasson St, Colombo St, Coventry St, Welles St, Antigua St, Horatio St, Halkett St, Durham St South, Montreal St, Eaton Pl, Allen St, Manchester St, Madras St, Atlas Ln, Rope St, Southwark St, Fitzgerald Ave, Barbadoes St, Ferry Rd, Alfred St, Dundas St, Williams St, Tuam St, Balfour Tce, Stewart St, Wilmer St, Alcester St, Acton St, Bath St, Winchcombe St, Selwyn St, Waller Tce, Oxford Tce, Walker St, St David St	Nov-13	Apr-15	Downer
	Armagh St	Dec-13	Jul-14	Downer
	Rolleston Ave	Jan-14	May-14	McConnell Dowell
  	Lichfield St, Woolsack Ln, High St, Hereford St, Cathedral Sq, Cashel St, Kivers Ln, Colombo St, Struthers Ln, Tattersalls Ln, Tuam St, Durham St South, Mollett St, Oxford Tce, Poplar St, Cashfields Acde, High Street Acde, Madras St, Manchester St, Sol Sq, His Lordships Ln, Colonial Ln, Ogb Ln, Tramway Ln, Bedford Row, National Mutual Acde, Gloucester St, Liverpool St, Chancery Ln, Press Ln, Armagh St, Gloucester Acde, Ash St, Kilmore St, Chester St East, Worcester St, Westpac Ln, Latimer Sq, Gressons Ln, Strand Ln, Shades Acde, New Regent St, Barbadoes St, Montreal St, Plymouth Ln, Club Ln	Jan-14	Jun-15	McConnell Dowell
	Durham St South, Barbadoes St, Hereford St	Jan-14	May-14	Fletcher Construction
  	Armagh St, Bangor St, Oxford Tce, Fitzgerald Ave, Cashel St, Chester St East, Tuam St, Latimer Sq, Gloucester St, Lichfield St, Hereford St, Worcester St, Barbadoes St, Duke St, Dawson St, Kilmore St, Clarkson Ave, Gilmours Ln, Hurley St, Nova Pl, Willow St	Feb-14	Jan-15	City Care
	Moorhouse Ave	Feb-14	Aug-14	Downer
  	Conference St, Madras St, Manchester St, Salisbury St, Bealey Ave, Kilmore St, Armagh St, Cambridge Tce, Knox Ln, Dublin St, Colombo St, Melrose St, Cashel St, Worcester St, Peterborough St, Durham St North, Durham St South, Rolleston Ave, Chester St West, Peacock St, Ely St, Gloucester St, Montreal St, Hereford St, Stoneyhurst St, Airedale Pl, Barbadoes St, Amuri Park Ln, Cranmer Sq, Victoria St, Park Tce, Armagh Ct, Beveridge St, Gracefield Ave, Dorset St, Moa Pl, Ulster Pl, Westwood Tce, Carlton Mill Rd, Peterborough Ln, Aberdeen St, Otley St, Dollans Ln	Feb-14	Jul-15	Fletcher Construction

**All dates are based on information current at September 2013. Dates are approximate and subject to weather and on site construction conditions.**

**SCIRT delivery teams will not be working in all streets in a 'project area' at the same time. Work will start in one area of the project and then progress through the rest of the project area. SCIRT will contact you before work begins in your area.**

## How we will be working

It's all about balance. SCIRT needs to get the work done quickly and efficiently, and keep traffic moving. It also needs to consider the residents and businesses in the Central City.

You may have wondered why there isn't more work at night. This is because as a general rule, night work is less productive, costs more and is more dangerous for road users and workers. Brightly lit roadworks and noisy machinery are intrusive on people's lives and can keep residents awake at night.

Just like the rest of Christchurch, SCIRT workers have families and need a break.

SCIRT will often temporarily affect parking during roadworks. Where possible, alternative parking will be made available.

## Who will be doing the work?

Projects are designed at SCIRT head office. They are then allocated to one of the four 'delivery teams' working in the Central City - **City Care, Downer, Fletcher and McConnell Dowell**. Refer to the contact details on the back page.

## Managing Traffic

Temporary traffic management (signs, cones, barriers and fences) helps keep road workers and road users safe.

Careful planning goes into all traffic management decisions. SCIRT works with Council, NZTA and CERA to understand the traffic impacts for each worksite and the combined impact of all worksites across the network.

Detailed street level programmes are fed into a traffic model to help sequence the work. SCIRT liaises on a daily basis with the Christchurch Transport Operations Centre (CTOC) based at Council offices in Hereford

Street to ensure that the network is optimised to accommodate our work.

As a general rule priority is given to maintaining the efficiency of more strategic routes. This will often mean that longer wait times are experienced by motorists on side roads particularly at signalised intersections.

The [www.transportforchristchurch.govt.nz](http://www.transportforchristchurch.govt.nz) website provides information about traffic changes across the city. There is also a mobile version of the site and links to iPhone and Android apps. Further development for up-to-date traveller information is expected in the coming months.

The website also has maps of routes around the Central City: <http://www.transportforchristchurch.govt.nz/cbd-available-routes-map/>

These are updated weekly and available in The Press on Saturdays.

## Staying in touch

The people of Christchurch are at the heart of this infrastructure rebuild. SCIRT is rebuilding this infrastructure for the people of Christchurch.

It's our responsibility to keep you informed about what's happening in your neighbourhood. We will be using many forms of communication to do that: work notices to directly affected people, print and radio advertisements, signage, SCIRT website, meetings/briefings, and Central City e-newsletter (subscribe by emailing us at: [info@scirt.co.nz](mailto:info@scirt.co.nz)).

It's not all about us talking to you. There are many ways for you to contact us to find out more about the horizontal infrastructure rebuild. If you have any questions please get in touch. SCIRT contact are on the back page.

## Other useful Central City contacts

### Christchurch Central Development Unit

Helping bring the renewed Central City to life, based on people's feedback, by:

- Creating catalysts, including Anchor Projects, streets, public spaces and new residential development
- Providing high-quality information to others interested in investing in the Christchurch CBD
- Stimulating interest in Christchurch, and hence tenant demand.

<http://ccdu.govt.nz/>

Phone: 354 2600

Email: [info@ccdu.govt.nz](mailto:info@ccdu.govt.nz)

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### Christchurch City Council - Transitional Projects

For projects that are temporary projects in public spaces that improve the Central City environment while the city is rebuilt. These projects will improve pedestrian links between New Regent Street, Cathedral Square and Re:START in Cashel Mall.

[www.ccc.govt.nz/transitionalcity](http://www.ccc.govt.nz/transitionalcity)

Phone: 941 8999

Email: [info@ccc.govt.nz](mailto:info@ccc.govt.nz)

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### Christchurch City Council - Rebuild Central

For property owners and businesses looking to redevelop or relocate to the Central City.

36 Lichfield Street

For contact with a Recovery Coordinator:

Phone: 941 8999

Email: [rebuildcentral@ccc.govt.nz](mailto:rebuildcentral@ccc.govt.nz)

## Contact details

For SCIRT **project specific** queries, contact the SCIRT Delivery Team constructing the project near you.

City Care:  
0800 632 889

Downer:  
0800 400 310

Fletcher:  
0800 444 919

McConnell Dowell:  
0508 718 719

For **general** SCIRT queries:

Phone:  
(03) 941 8999

Email:  
[info@scirt.co.nz](mailto:info@scirt.co.nz)

Twitter:  
[@SCIRT\\_info](https://twitter.com/SCIRT_info)

[www.strongerchristchurch.govt.nz](http://www.strongerchristchurch.govt.nz)



**GO THE EXTRA MILE**  
FOR BUSINESSES AFFECTED  
BY REBUILD ROADWORKS

**THE CENTRAL  
CITY IS OPEN  
FOR BUSINESS  
DURING THE  
REBUILD –  
BE PART OF IT.**

WE ENCOURAGE  
YOU TO MAKE THE  
EXTRA EFFORT TO  
SUPPORT CENTRAL  
CITY BUSINESSES. THIS  
MIGHT MEAN PARKING  
FURTHER AWAY OR  
WALKING A BIT FURTHER  
TO GET TO YOUR  
FAVOURITE SHOP.



# Are we there yet?

Central City Newsletter | September 2014 | Issue 2

Over recent months work really ramped up in the Central City (the area between Bealey, Fitzgerald, Moorhouse and Deans Avenues).

With up to 45 SCIRT work crews in the city, we've tackled the rebuild head on.

SCIRT needs to get in early as our mostly 'below-ground' horizontal infrastructure is timed to support the 'above-ground' rebuild work such as the anchor projects and large private developments.

Coordinating and sequencing our work is part of ensuring we don't hold up progress.

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## We're over two thirds of the way through!

We know it's been hard. But we've got three pieces of good news for those coming and going through the Central City:



We're now over **two thirds** of the way through our **Central City work** – the end is in sight.



The peak of our Central City work has passed.

**You should now be experiencing fewer delays and detours** from SCIRT works.



By the end of **this year**, we're aiming to be around **90 percent** of the way through our Central City programme.

Thank you Christchurch for your continued patience and support

# WE'RE MAKING PROGRESS

*Taking the city on our journey*

At the end of June 2013, the final cordon around our earthquake damaged Central City was lifted.

This event not only heralded the end of the Defence Force's longest-ever domestic deployment with soldiers staffing the cordon for 857 days, it also heralded the start of the next phase in rebuilding Christchurch.

While SCIRT had undertaken significant work in suburban Christchurch, the team was finally able to move more fully into the Central City to really ramp up and get the job done.

With so many agencies hot on our heels ready to play their part in the city's rebuild, it was important in terms of a coordinated approach for SCIRT to complete its below-ground works to support the coming above-ground rebuild.

2011

May/June 2011 the Council runs 'Share an Idea' campaign  
 September 2011 beginning of SCIRT  
 October 2011 SCIRT builds \$10million of infrastructure

2012

March 2012 SCIRT builds \$50million of infrastructure  
 June 2012 SCIRT begins Central City Trunk wastewater repairs  
 July 2012 SCIRT builds \$100million of infrastructure  
 July 2012 CERA launches Christchurch Central Recovery Plan – the Blueprint vision for the new CBD  
 November 2012 SCIRT builds \$200million of infrastructure

2013

January 2013 SCIRT Central City projects start north of the Avon river  
 April 2013 SCIRT builds \$300million of infrastructure  
 June/July 2013 last of the Central City Red Zone cordon is lifted  
 July 2013 SCIRT builds \$400million of infrastructure  
 August 2013 CERA opens first part of Avon River Precinct  
 September 2013 SCIRT designs finalised to support Central City Blueprint  
 September 2013 SCIRT Central City work well underway  
 October 2013 SCIRT Central City projects start south of the Avon river  
 December 2013 CCDU begins Avon River Precinct

## SEPTEMBER 2013 SCIRT DESIGNS FINALISED TO SUPPORT CENTRAL CITY BLUEPRINT



**SCIRT Central City work ramps up**  
 September 2013



### What is SCIRT's job in the Central City?

SCIRT is responsible for repairing the earthquake-damaged underground infrastructure in Christchurch.

There was about \$160 million worth of earthquake damage to roads, bridges, wastewater, storm water, and fresh water networks in the Central City - the area between Bealey, Fitzgerald, Moorhouse and Deans Avenues.

The 'horizontal infrastructure' which SCIRT is responsible for includes repairs to around:

- 43km of wastewater pipe
- 8km of fresh water pipe
- 9 pump stations
- 15 bridges (including 8 major repairs)
- 62km of road.

SCIRT is a partnership between Christchurch City Council, Canterbury

Earthquake Recovery Authority (CERA), New Zealand Transport Agency (NZTA), with an alliance made up of five construction companies or "Delivery Teams". They are City Care, Downer, Fletcher, Fulton Hogan and McConnell Dowell.

Four of these Delivery Teams are working in the Central City. They are: City Care, Downer, Fletcher, and McConnell Dowell.

September 2014  
SCIRT Central City  
programme 71%  
completed

April/May 2014  
SCIRT Central  
City programme  
50% completed

March 2015  
SCIRT aiming to  
have completed  
all Central City  
wastewater,  
storm water,  
fresh water and  
road repairs



2014

We are  
here

2015

2016

February-April 2014 SCIRT Central City work builds to peak – up to 45 crews working at once

May 2014 SCIRT Central City programme 57% completed

June 2014 CCDU begins Bus Interchange

July 2014 SCIRT Central City peak starting to drop off

July 2014 CCDU begins Justice and Emergency Services Precinct

August 2014 SCIRT Central City programme 68% completed

August 2014 SCIRT reaches 50% mark overall across whole of SCIRT programme

September 2014 SCIRT Central City programme 71% completed

End of 2014 SCIRT aiming to be 90% through Central City programme – including all wastewater and fresh water repairs

March 2015 SCIRT aiming to have completed all Central City wastewater, storm water, fresh water and road repairs. Central City bridge repairs ongoing

Throughout 2016 SCIRT continuing its programme of works outside of the Central City



## TOO FAST? TOO SLOW?

*We know our work impacts on people in different ways. The feedback we get ranges from our programme either going too fast, or not fast enough. Common questions include:*

### **Is there a coordinated plan, or does everyone just do their own thing?**

Everyone - including SCIRT, the Council, CERA, utility providers, private developers and land owners - is coordinating to get our city up and running again as efficiently as possible. There is a plan, but it's still a massive job. With so many working at once, it makes the city space very busy.

### **Why so much Central City work at once?**

Doing things in the right order is important. SCIRT needed to get in early as our mostly 'below-ground' horizontal infrastructure repairs are timed to support the 'above-ground' rebuild work such as the anchor

projects and large private developments. Coordinating and sequencing our work is part of ensuring we don't hold up progress.

### **Did you consider road users when ramping up the work?**

The challenge is keeping the rebuild on track while keeping traffic moving. Detours and delays are inevitable. We know the first day of a traffic change is often the hardest for road users, but we also know people quickly adapt after that first day. We closely track driver behaviour and if necessary will make adjustments to ease traffic, while not delaying necessary works.



Artist's impression of the Bus Interchange from Lichfield St looking south.

## How we coordinate

SCIRT General Manager Duncan Gibb says people often ask if SCIRT coordinates with other organisations whose projects affect the roading network. The answer is Yes.

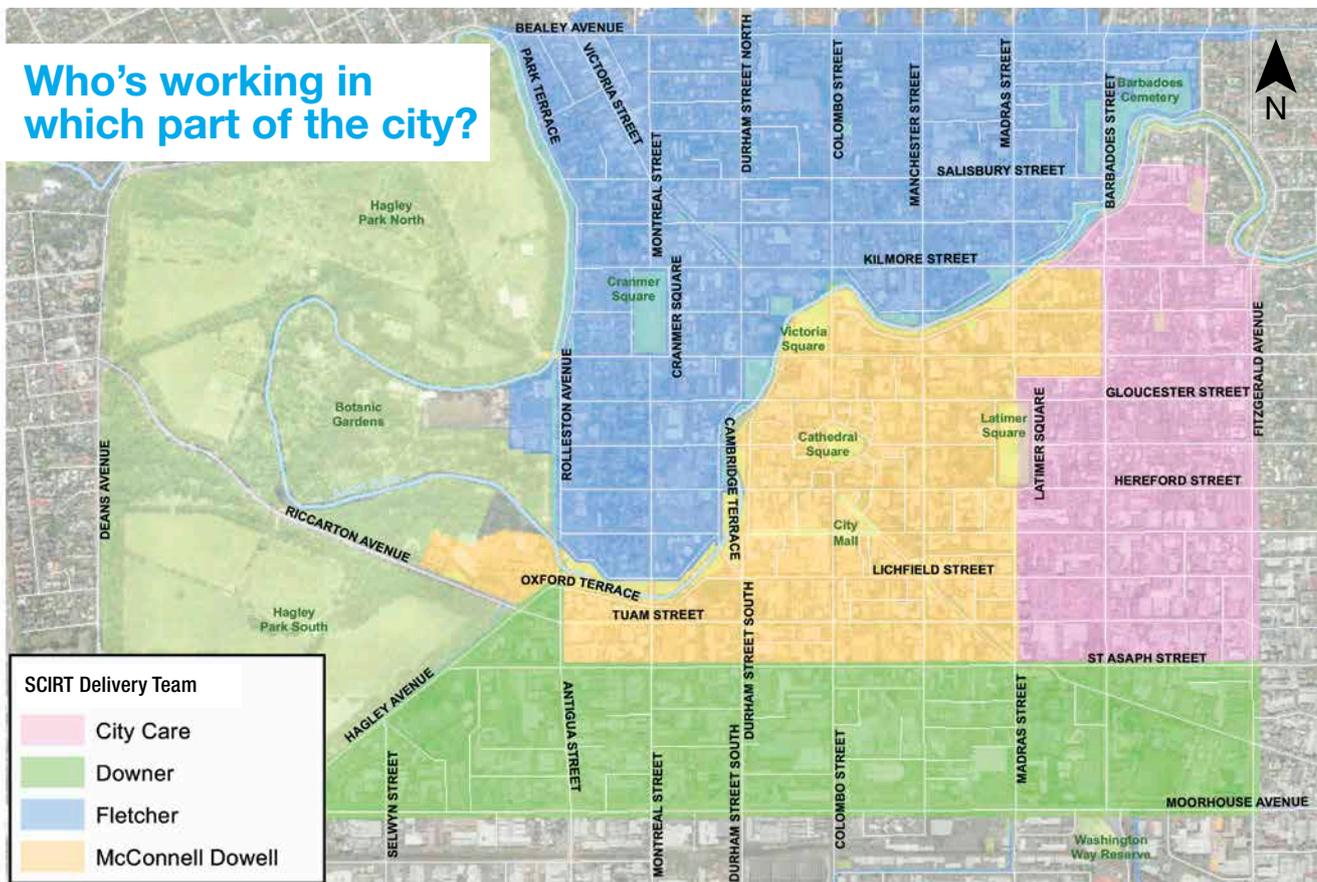
SCIRT's programme has been fully aligned with the anchor projects. One recent example of this was coordinating progress on Christchurch's new Bus Interchange with SCIRT's wastewater rebuild to occur in the same space at the same time to minimise disruption.

Tuam Street, between Colombo and Manchester

closed for around four weeks during May. This was to enable the Christchurch Central Development Unit (CCDU) to demolish the former Civic Offices on Tuam Street to make way for the new \$53 million Bus Interchange. SCIRT programmed its wastewater repair on Tuam Street to occur at the same time.

Duncan says, "This is a good example of coordination. We worked closely with CCDU to line up their need for a road closure with our own work in this area. We know this work can have a big impact on road users and businesses so it is important to minimise the impact whenever we can". Construction has now begun on the Bus Interchange.

## Who's working in which part of the city?



Note bridges are not included in these geographic divisions.



# Gone, but we may be back

*When we finish a work site and leave a street, it doesn't always mean we're gone for good. Where there is damage to more than one service underneath the street (wastewater, storm water or fresh water pipes), we may need to return for other repairs.*

**The pipes are in different parts of the road and at different depths** (see image below)

To fix them all at once would require a much larger work site to accommodate the various crews involved. For road users, this could mean more inconvenience such as a detour due to additional road closures, rather than just lane closures.

We need to keep traffic flowing. While detours or delays are inevitable and part of getting on with the city's

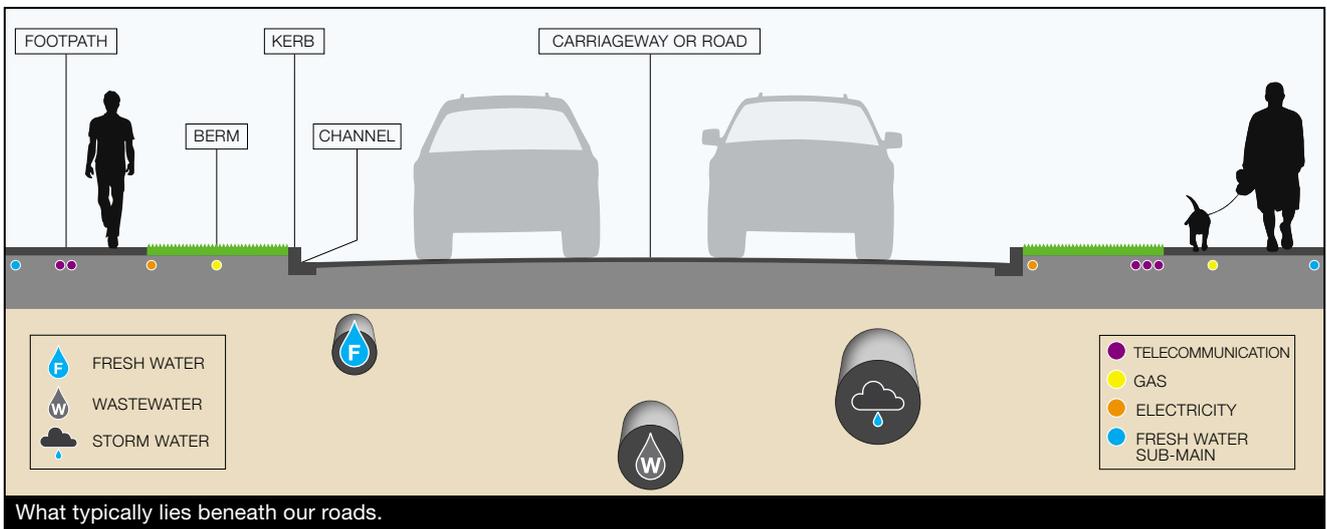
rebuild, SCIRT sites are designed to support road users as well as keeping the work crew safe.

## Which pipes are fixed first

SCIRT prioritised damaged **wastewater** so households and businesses had working toilets. Wastewater pipes are also often the deepest and most damaged so it made sense to deal with them first.

**Storm water** and **fresh water** pipes are repaired, as a general rule, after wastewater. As these pipes tend to be shallower, the work sites are often more compact and less disruptive to road users than wastewater work sites.

The **road** surface is the last part to be repaired. A temporary seal may be applied if we need to return to complete more work under the road. Temporary road repairs also help to keep the city moving until a permanent road repair is completed.



**The Central City is open for business during the rebuild - be part of it.**

We encourage you to make the extra effort to support Central City businesses. This might mean parking further away or walking a bit further to get to your favourite shop.

**GO THE EXTRA MILE FOR BUSINESSES AFFECTED BY REBUILD WORKS**

## CONTACT DETAILS

For **SCIRT project specific queries**, contact the SCIRT Delivery Team constructing the project near you:

**City Care:**  
0800 632 889  
scirt@citycare.co.nz

**Downer:**  
0800 400 310  
eqinfo@downer.co.nz

**Fletcher:**  
0800 444 919  
CIRinfo@fcc.co.nz

**McConnell Dowell:**  
0508 718 719  
Christchurch.comms@macdow.co.nz

For **general SCIRT queries**:  
Phone: 941 8999 Email: info@scirt.co.nz  
Twitter: @SCIRT\_info  
www.strongerchristchurch.govt.nz

## Bridge repairs a special task

Our rivers and bridges are what make our city so special. SCIRT has 15 earthquake-damaged bridges in the Central City to repair.

Bridges are significant pieces of infrastructure. Repairing them requires some challenging engineering and traffic management solutions. The time it takes to repair each bridge varies, but typically it can take many months.

### Designing a traffic change

Bridges closed for repairs means travellers need to temporarily find a different route. Often it's a less convenient one. SCIRT looks carefully at traffic change options to ensure the wider road network has enough capacity to keep operating during bridge repairs.

### Programming bridge repairs

Bridge repairs can't all be done at once. SCIRT will not start on some bridges until others are completed. For example the Armagh Street bridge was not started until the Colombo Street bridge was repaired and reopened to enable traffic in the area to continue to flow.

### The end result

SCIRT is repairing bridges to their pre-earthquake levels of service. Modern materials and construction methods are used to improve resilience and bring bridges up to current design standards, where required. The appearance of the bridges will not vary greatly. Where SCIRT needs to rebuild or replace bridge sections it's generally of a similar design.



Tom Harding-Ilott, Site Engineer with SCIRT's Downer Delivery Team working underneath the historic Armagh Street bridge.



The reopened Colombo Street bridge, completed in April this year. Note the 'warping' on the right of the photo which was kept as an ongoing reminder of the February 2011 earthquake.



Site Engineer, Stuart Anderson, completing a two-hourly water test to ensure it is clean and safe.

## Protecting our precious rivers

With a lot of Central City work near rivers, protecting the environment is a critical part of our projects.

You may have noticed SCIRT's McConnell Dowell Delivery Team installing a new pump station on Oxford Terrace near the Manchester Street bridge.

A large area has been excavated close to the river to make room for the construction of a storm water outfall. To comply with Environment Canterbury's environmental standards, water is pumped from the excavation into a holding tank. This allows silt to settle before the water filters out of the overflow. The water is then naturally filtered through the banks of the Avon where it returns to the river.

The water in the holding tank and the overflow is inspected every two hours to ensure it is clean and safe.

This project is expected to be complete later this year. Until then, this section of Oxford Terrace is closed with Manchester Street bridge one way.



# Business support – a top priority

*One of the major challenges in the Central City is keeping the rebuild moving, keeping traffic moving and keeping access to businesses open.*

SCIRT knows its work can be very challenging for businesses. Unfortunately dust, noise, detours, delays and changes to access are unavoidable.

We work closely with businesses near our work sites to find ways to:

- Provide as much advance notice as possible outlining when, where, why so businesses can prepare
- Understand business needs like parking, access, delivery times etc so we can find ways, where possible, to support these
- Provide a key contact person and a hotline number
- Provide ideas and tools to assist with customer communication
- Put together signage to promote that the business is still open and the easiest access points
- Use advertising, website stories, signage and stickers to encourage people to support businesses affected by SCIRT works.

*“What has been crucial, is the regular and concise communication between SCIRT and business owners. We know this is work that has to be done and it is simply our turn. While we put up with the noise and dust, we appreciate the support of SCIRT employees.”*

**Ross Oxnam**  
Go Kiwi Gifts  
New Regent Street

*“We had been in quite some trepidation beforehand. We could not envisage how we could continue to trade with all of the work that was to take place in the road. Courtesy, friendliness and cooperation were the main things that were in abundance. The front line team were great in the way in which they would inform us in advance of any big task that could impede our operations.”*

**Pat Dolan**  
Auto Sound and Security  
Durham Street

*“...helped us with parking, allowed necessary access, shifted your machinery when people needed to get out, relocated our rubbish bins... gone out of your way to keep dust levels to a minimum, kept us safe and cheerfully provided us with information regarding progress. We knew what to expect, when to expect it and were given good advice on how to cope.”*

**Victoria Neighbourhood Association**  
(businesses and residents)

*“The guys and gals in the crew were always friendly and happy to answer any questions we had about what they were doing. I think the team appreciated our friendly little neighbourhood.”*

**Chester Street East residents**

## SAFETY AND TRAFFIC = a balancing act

*Road cones mean different things to us all. But to SCIRT they mean keeping people safe around work sites while also keeping traffic flowing.*

Careful planning goes into all traffic management decisions. SCIRT works with the Council, NZTA and CERA to understand the traffic impacts for each work site and the combined impact of all work sites across the network.

The people on our work sites wearing bright yellow high-vis stamped with ‘STMS’ are ‘Site Traffic Management Supervisors’. They are trained, qualified temporary traffic managers.

STMS, Vanessa Bell, is fully committed to safety. “I like setting up a really well planned site, seeing that it flows and that drivers and cyclists are negotiating their way round it. The cones really do have a purpose.”

An Operations Manager for Men at Work (a local traffic management company used by SCIRT Delivery Teams) Vanessa was recently awarded the first Hays recruitment company’s Women in Construction Excellence Award.

With close to nine years’ experience as a traffic manager behind her, Vanessa has a Level 2/3

STMS practicing assessment (currently the highest temporary traffic management qualification), and is a National STMS and Traffic Controller Trainer.

“For the public, we are the biggest complication in their daily life. If we can work around the people, and try our hardest in the planning stages to minimise their disruption, we help build in some trust.”



STMS, Vanessa Bell, working with some of her colleagues on another busy SCIRT site.



**SCIRT has many people working in your part of the city – both under and above the ground. Thank you for your patience while they complete these essential works.**

## Useful Central City Contacts

### Christchurch Central Development Unit (CCDU)

The CCDU is the part of CERA leading the future development of the Central City. It exists to help bring a renewed Central City to life, based on the public feedback, by:

- creating catalysts, including anchor projects, streets, public spaces and new residential development.
- providing high-quality information to others interested in investing in the Christchurch CBD.
- stimulating interest in Christchurch, and hence tenant demand.

[www.ccdu.govt.nz](http://www.ccdu.govt.nz)  
 Phone: 354 2600  
 Email: [info@ccdud.govt.nz](mailto:info@ccdud.govt.nz)

### Christchurch City Council - Transitional Projects

The Council supports Transitional Projects as creative and innovative ways to improve the Central City environment while the city is rebuilt. They:

- work with business and the community on temporary projects that improve and activate public areas. Pop-up parklets and transitional streetscapes add colour to the city, slow traffic and support wayfinding between recovering business areas.
- can use empty and under-utilised spaces creatively and productively while decisions about their long term use are made.

[www.ccc.govt.nz/transitionalcity](http://www.ccc.govt.nz/transitionalcity)  
 Phone: 941 8999  
 Email: [info@ccc.govt.nz](mailto:info@ccc.govt.nz)

### Christchurch City Council - Rebuild Central

For property owners, business owners and investors interested in redevelopment in or relocation to the Central City. The team includes urban designers, planners, resource consent and building consent experts, and specialists in sustainability, public space and economics to:

- explain the vision outlined in the Christchurch Central Recovery Plan and its implications for specific sites.
- provide advice on precinct development.
- assist returning or new businesses by briefing them on where and when developments are occurring.
- offer design and planning advice for coordinated development within a precinct, block and/or street.
- connect property owners and developers with their neighbours for collaboration.
- provide information on planned infrastructure work in the Central City.
- assist with site-specific enquiries regarding urban design, planning and building consent.
- assign case managers to help developers and owners to navigate the Council's resource and building consent process, and other Council regulatory processes.

[www.ccc.govt.nz/business/rebuildingchristchurch](http://www.ccc.govt.nz/business/rebuildingchristchurch)  
 Phone: 941 8999  
 Email: [rebuildcentral@ccc.govt.nz](mailto:rebuildcentral@ccc.govt.nz)

### Transport for Christchurch

This website allows road users in Christchurch to see where roadworks are, view journey times on different routes and keep up-to-date with the latest transport and traffic news.

[www.tfc.govt.nz](http://www.tfc.govt.nz)  
 Email: [tfc@tfc.govt.nz](mailto:tfc@tfc.govt.nz)  
 To report a city road issue:  
 Phone: 941 8999  
 Email: [info@ccc.govt.nz](mailto:info@ccc.govt.nz)

## Future Christchurch

Stay up to date with what's happening in your city.

[www.futurechristchurch.co.nz](http://www.futurechristchurch.co.nz)



# GO THE EXTRA MILE FOR BUSINESSES AFFECTED BY REBUILD ROADWORKS

This image is available as a bumper sticker. Please email [info@scirt.co.nz](mailto:info@scirt.co.nz) if you would like us to send you some for your workplace or neighbourhood.