QUEENSLAND COURTS

CORONERS COURT OF QUEENSLAND

FINDINGS OF INQUEST

CITATION:	**Inquest into the death of Matthew Trent Ross**
TITLE OF COURT:	Coroners Court
JURISDICTION:	Brisbane
FILE NO(s):	2013/2464
DELIVERED ON:	13 April 2018
DELIVERED AT:	Brisbane
HEARING DATE(s):	12 April, 20-24 November, 27-30 November 2017, 24 January 2018
FINDINGS OF:	John Lock, Deputy State Coroner
CATCHWORDS:	Electrocution, workplace incident, adequacy of investigation, loss of continuity of crucial physical evidence, Residual Current Devices

REPRESENTATION:

Counsel Assisting:	Ms M Jarvis
For the family:	Ms D Callaghan & Ms Hewson i/b Butler McDermott
For Jesse Thallon:	Mr P de Platter i/b Slater & Gordon Lawyers
For Paynter Dixon Qld Pty Ltd:	Mr B McMillan i/b Norton Rose Fulbright
For Office of Industrial Relations:	Mr S Gray i/b Crown Law
For R Kupsch, T Stott, M Bateman:	Ms C Hartigan i/b Hall Payne Lawyers
For KPM Building Solutions Pty Ltd:	Mr A Braithwaite i/b Cockburn Legal
For Queensland Electrical Pty Ltd:	Mr J Bremhorst i/b Moray & Agnew Lawyers

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Introduction

1. Matthew Trent ROSS was 25 years old and a qualified carpenter. At the time of his death he had been working for a friend's roofing business for approximately two weeks as a roofing labourer. Matthew was generally in a good state of health. On the morning of the day he died he had indicated to his partner that he was starting to get a cold and had taken two cold and flu tablets.

2. On Thursday 11 July 2013, Matthew was working at a construction site involving renovation and refurbishment of the Adventist Aged Care Retirement Village in Victoria Point. His friend's roofing business had been sub-contracted to put a roof on a small shed and install fascia and guttering to a new two-storey extension adjoining an existing building at the site known as "the Chapel". It was their first day on site and they were hoping to finish the job in one day. The head contractor was a company Paynter Dixon Queensland Pty Ltd ('Paynter Dixon').

3. The guttering work required Matthew and his friend Jesse Thallon to work from scaffolding that had been erected well prior to them attending the site. They worked on the scaffold throughout the afternoon of 11 July with no issues. The work took longer than expected. By 4.30pm they were the only two tradespeople left on site.

4. Around this time Matthew and Jesse Thallon had a discussion with David Power the site foreman, who agreed to let them continue working so they could try and finish the job.

5. The foreman went on with other tasks and began closing up the site. At some point he checked his mobile phone and saw it was about 5.07pm. He noticed it was starting to get dark. Just at this time, the foreman heard yelling and went immediately towards the area where Matthew and his friend were working.

6. Matthew was standing on the metal scaffolding and Jesse was on the timber frame of the roof above him. Jesse yelled to the foreman not to come up because the scaffolding was live and had electricity running through it. Jesse was bravely trying to pull Matthew up onto the timber frame with him.

7. Together the foreman and Jesse Thallon were able to pull Matthew up onto the roof and away from the metal scaffolding. Matthew was unresponsive but making some respiratory sounds. They commenced CPR and called for emergency services. Despite lengthy resuscitation efforts by ambulance officers, Matthew did not respond and he was transported to Princess Alexandra Hospital where his death was confirmed. Post mortem examinations confirmed Matthew's cause of death as electrocution.

8. Officers from the Queensland Police Service (QPS), Workplace Health & Safety Queensland (WHSQ) and the Electrical Safety Office (ESO) attended the site that evening to carry out some initial scene investigations. Power supply to the site had been disconnected by the electricity supplier, and initial tests were unable to determine the source of any electrical current that may have been affecting the scaffold. A decision was made to return the following morning and carry out further investigations.

9. A WHSQ inspector issued a statutory Non-disturbance Notice to Paynter Dixon's Health, Safety, Environment and Quality (HSEQ) Manager who was on site that

evening, requiring that the site be preserved with no one to enter building or access scaffold until 9.00am the following morning.

10. From around 6.30am the following morning, 12 July 2013, a number of union officials entered the site in the presence of Paynter Dixon staff but before any of the authorities investigating the incident had returned. One of the union officials climbed on to the scaffold and removed one or more leads from an electrical board at the base of the scaffold.

11. Later that morning, WHSQ and ESO inspectors arrived and carried out further examinations and tests at the scene. During this time, they located a damaged light fitting (later described in reports as Light Fitting Z) approximately 30 metres from the incident site and on the other side of the building. Light Fitting Z was in physical contact with a metal water pipe, which in turn was in contact with the scaffold. However, the Active conductor of the damaged light fitting was not in contact with the metal water pipe or the scaffold.

12. A visual examination by ESO inspectors revealed several light fittings including Light Fitting Z were connected to the same circuit. One of these light fittings (in the reports referred to as Light Fitting Y and mounted on a soffit near the front entrance of the existing facility) was found intact but with transposed earth and neutral conductors. This transposition technically would allow current to flow in the earthing system when the light fitting was energised. The ESO inspectors focussed their attention on this Light Fitting Y as the potential source of the current.

13. Subsequent tests and calculations indicated to ESO inspectors that any current that may have been flowing through Light Fitting Y would be of insufficient magnitude to cause electrocution. ESO inspectors attended some time later at the site to determine if another shock path existed. ESO inspectors noted evidence of what they considered to be “arcing” on the water pipe corresponding with where the damaged Light Fitting Z had been sitting. Light Fitting Z had not been immediately seized by the WHSQ investigator on that day but photographs had recorded Light Fitting Z in situ.

Photo taken by Garaty shows inners of light resting on scaffold

14. On 22 July 2013 a statutory notice was issued to Paynter Dixon requiring it to produce Light Fitting Z to WHSQ for further testing. In the intervening period it appears the light fitting had been removed from the site by Paynter Dixon staff.

15. Light Fitting Z was produced and subsequent examinations by ESO inspectors on 5 September 2013 identified what appeared to be an "arc" mark on the damaged light frame. The ESO inspectors returned to the site that same day to further inspect the water pipe, and concluded that the arc markings on the pipe and the light fitting corresponded, indicating to them there had been current flow between the Light Fitting Z and the water pipe.

16. The ESO inspectors further identified that this current flow would have been insufficient to operate the Circuit Protective Device for this circuit but was of a sufficient magnitude to cause a fatal electric shock, if an electrical circuit was completed by simultaneous contact by a person with the scaffolding and the metal guttering above. They noted that this scenario appeared consistent with how the incident was described by Matthew's friend, Jesse Thallon.

17. Significantly, the ESO inspectors identified that the supply wiring to Light Fitting Z was controlled by a photo electric cell that activated the light at a predetermined sunlight level. That is, the light would turn on in the evening as the sky darkened, and turn off again the following morning when sunlight returned. Sunset that evening, 11 July 2013, was at 5.09pm[1]. The site foreman remembered hearing the yelling right around this time and as it was getting dark.

18. The WHSQ report to the coroner concluded that Matthew died as a result of a serious electrical incident as defined in the *Electrical Safety Act 2002*[2], and that

[1] Geoscience Australia, Australian Government: http://www.ga.gov.au/geodesy/astro/sunrise.jsp
[2] Section 11 of the *Electrical Safety Act 2002*, reprint No. 4H (as in force on 22 November 2012).

Paynter Dixon being the company in control of the site may have been in breach of an obligation under that Act to ensure the electrical safety of Matthew and others working on the site[3]. However, WHSQ also concluded that a successful prosecution was unlikely due to evidentiary issues including possible contamination of the scene by union officials and a loss of continuity in relation to the most critical piece of physical evidence, that is, the damaged Light Fitting Z.

19. Apart from these issues, the investigation by WHSQ took a considerable amount of time, with some key witnesses not spoken to until late 2014 and early 2015. WHSQ's final investigation report was not completed until December 2015, almost two and a half years after Matthew's death and well outside the 12 month timeframe for commencing prosecution for an offence under the *Electrical Safety Act 2002*[4].

20. Ultimately, the investigation was unable to determine how the damaged Light Fitting Z came to be where it was found on 12 July 2013. It appeared the light fitting may have been related to some demolition work carried out within and around the existing Chapel building, adjacent to the new extension where Matthew was working. However, the chain of events leading to Matthew's death remained unclear.

21. For this reason, and at the request of Matthew's family, a decision was made to hold an inquest.

Issues for the inquest

22. At a pre-inquest hearing held on 12 April 2017 the following issues for the inquest were settled:

    i. The findings required by s. 45 (2) of the *Coroners Act 2003*; namely the identity of the deceased, when, where and how he died and what caused his death.
    ii. The circumstances surrounding the death and, in particular, the chain of events leading to the deceased's death by electrocution.
    iii. The adequacy and timeliness of investigations conducted by police, work health and safety and electrical safety authorities in relation to the death.
    iv. What actions have been taken since the death to prevent deaths from happening in similar circumstances in the future.
    v. Whether there are any matters about which preventative recommendations might be made pursuant to section 46 of the *Coroners Act 2003*.

23. As well a number of witnesses were proposed to be heard from including:

- Detective Sergeant Christopher LAFFERTY, Queensland Police Service
- Principal Inspector Neale GARATY, Workplace Health and Safety Queensland
- Inspector Peter WESTCOTT, Workplace Health and Safety Queensland
- Senior Electrical Safety Inspector Don HEWETT, Electrical Safety Office
- Senior Electrical Safety Inspector Malcolm COOPER, Electrical Safety Office
- Senior Electrical Safety Inspector Paul FINNEN, Electrical Safety Office

[3] Section 30(3)(c).
[4] Section 187.

- Ian WILLIAMSON, Acting Regional Investigations Manager, Workplace Health and Safety Queensland
- Jesse THALLON, Director, Lifestyle Image Roofing
- David POWER, Site Foreman, Paynter Dixon Queensland
- Daniel DUNNE, Health, Safety, Environment and Quality Manager, Paynter Dixon Queensland
- Gary BIDDLECOMBE, Site Foreman, Paynter Dixon Queensland
- Peter CAMPBELL, Project Manager, Paynter Dixon Queensland
- Mitch KRUK, Contracts Administrator, Paynter Dixon Queensland
- Mark OSBURG, Safety Officer, Paynter Dixon Queensland
- Ryan ADAMCZYK, electrician and Director, Queensland Electrical
- Lance RICHTER, electrician, Queensland Electrical
- Conrad RAUP, apprentice electrician, Queensland Electrical
- Tony CHONG, apprentice electrician, Queensland Electrical
- Ross McGAHN, electrician, Queensland Electrical
- Anthony FRATER, employee of Frater Asbestos and Demolition
- Christopher FRATER, employee of Frater Asbestos and Demolition
- Nathan WERBA, employee of Frater Asbestos and Demolition
- Peter MURPHY, Director, KPM Building Solutions
- Michael ROBERTSON, carpenter, KPM Building Solutions
- Matthew LONG, carpenter, KPM Building Solutions
- Mark TOWERS, employee of Paynter Dixon Queensland
- Alan McLEAN, employee of Paynter Dixon Queensland
- Dean SCOTT, Construction Manager, Paynter Dixon Queensland
- Mark BATEMAN, union official, Electrical Trades Union (ETU)
- Royce KUPSCH, union official, Construction, Forestry, Mining and Energy Union (CFMEU)
- Tony STOT, union official, Builders' Labourers' Federation (BLF)

Autopsy results

24. An external and partial internal autopsy examination was ordered and was completed by forensic pathologist Dr Alex Olumbe.

25. The external examination showed multiple injuries including possible thermal burns on the lateral aspect of the right knee and distal aspect of the posterior right thigh. There were other minor injuries including abrasions on the legs and on the back of the hand. In particular, there was no evidence of any thermal marks on the hands.

26. Microscopic examination of sections taken from the right knee and right side showed changes consistent with electrical burn, i.e. electrocution.

27. There were changes of bronchial asthma in the lungs that would not have contributed to death. Prior to autopsy part of the heart was retrieved following consent of the family and the coroner. There was mild-to-moderate coronary atherosclerosis but no evidence of any other significant natural disease. The moderate amount of coronary atherosclerosis could have contributed to Matthew's death and was a significant finding in a man of his young age.

28. Toxicology testing noted a low concentration of alcohol in vitreous but was not detected in blood and urine. Analysis of urine showed the presence of morphine and codeine but not in the blood. It was considered the ratio of codeine and

morphine may indicate codeine use, which was supported by a trace amount of paracetamol present in the blood. This may indicate ingestion of codeine/paracetamol preparation and could be explained by taking of cold and flu tablets.

29. The cause of death was opined to be electrocution.

The circumstances surrounding the death and, in particular, the chain of events leading to the deceased's death by electrocution.

Work on site up to completion of demolition

30. Work on the site commenced around September or October 2012. The project involved construction of a new aged care nursing facility adjoining an existing facility, some of which was also being renovated. During construction the existing aged care facility remained operational with residents continuing to live in buildings outside the construction zone.

31. One of the first tasks on-site involved demolishing internal linings and walls and a suspended concrete balcony of an existing administration/Chapel building where new construction works were to adjoin. The western wall of the Chapel area was shared with another section of building that was not being demolished and remained occupied.

32. Importantly, at the time of this part of the demolition, the existing roof structure to the Chapel was not being removed/demolished and this also meant the existing eaves and soffits to the roof area were not being removed. Out of the hundreds of photographs gathered during the investigation, Light Fitting Z is not seen in situ in the soffit and its exact location was the subject of some contention, but I am satisfied it was situated in a soffit in an area that was still being used for potential public access above a doorway leading to some stairs that ran parallel to the southern part of the western wall of the existing Chapel building.

33. The issue that next was in contention is if the area where Light Fitting Z was located was in the "demolition zone", and if not, should it have been.

34. Prior to the commencement of demolition works Queensland Electrical was contracted by Paynter Dixon to isolate and make electrically safe the demolition zone. A Small Works Agreement dated 26 September 2012 describes the scope of work as "Electrical early works" and includes "make safe demolition area".

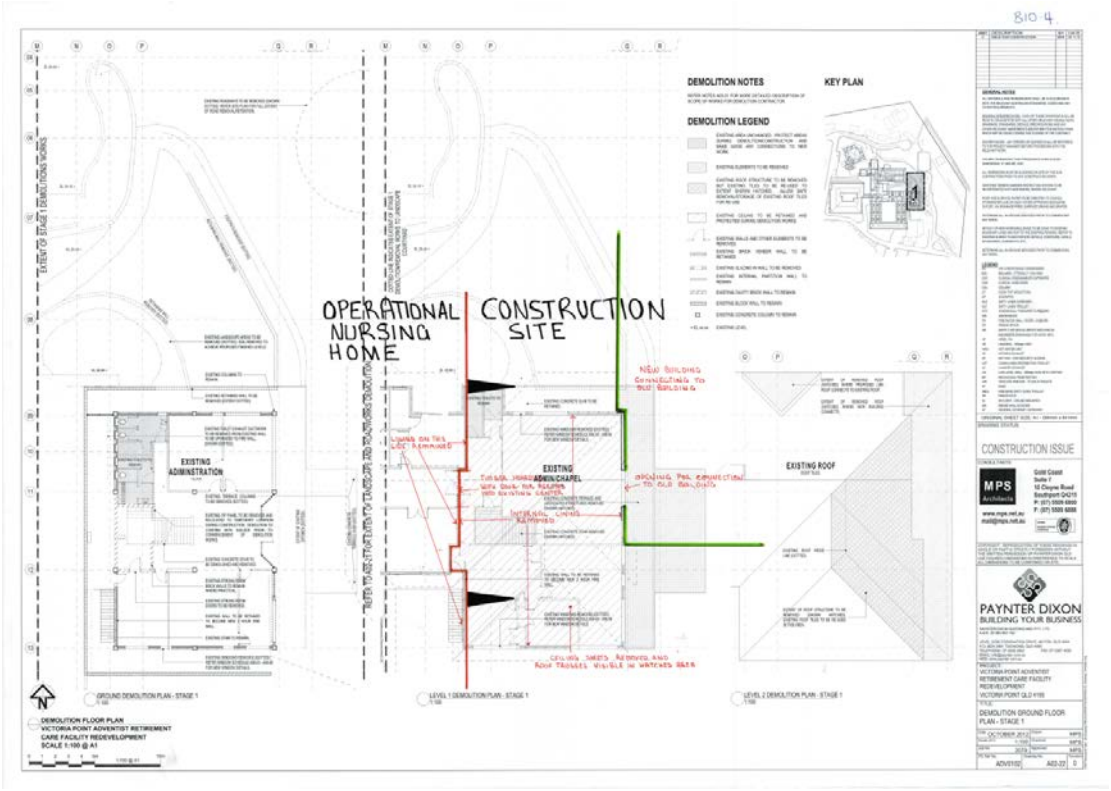
35. Lance Richter was employed by Queensland Electrical to complete this task. He was "fully inducted on the site", prior to commencing work. He was given a copy of a Paynter Dixon 'Electrical Isolation Certificate' to complete by site foreman Gary Biddlecombe.

36. Lance Richter's statement said he undertook isolation work, as follows:
    - Relevant circuit breakers tagged and locked out (from main distribution board located in the linen room)
    - Disconnected conductors out of circuit breakers for added safety
    - Isolated and removed sub-board (servicing accommodation rooms on the southern end of the chapel) including its supply cable and sub-circuits

- To verify that all electrical sources were de-energised, used a multi-meter and volt stick to identify and isolate accurately all circuits within the demolition zone
- Cables removed from demolition zone and removed back to its origin wherever possible

37. Lance Richter said in his statement and confirmed in his evidence that *"By the time I signed the electrical isolation certificate, no electrical cabling was left on the inside of the existing administration area or the existing chapel area in the demolition zone as marked".*

38. What was precisely the "demolition zone" was also the subject of much scrutiny during the course of the inquest. This was largely due to the fact that there was a fine line (literally if you consider the various attempts by some witnesses who were asked about the demolition zone and marked the exhibits accordingly) between the initial demolition zone and where it is likely Light Fitting Z was situated.



39. In respect to external light fixtures, Lance Richter:
- Recalls lights in the northern and eastern eaves. These were isolated and removed
- Does not recall any lights in western or southern eaves
- "*I do recall a light fixture may have been on southern wall below the eave level mounted to the brickwork. This light had been isolated and came from the sub-board at southern end of chapel as indicated on plan AO2-22 operated by a timer. This was de-energised and supply cable removed."*

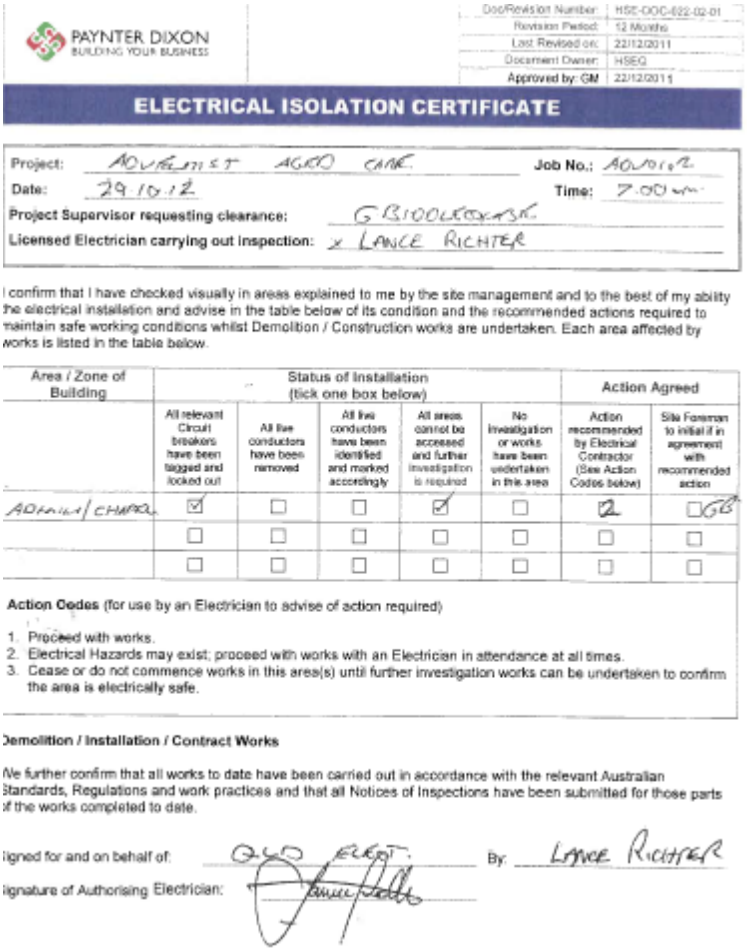
40. Lance Richter prepared an Electrical Isolation Certificate. There was also much contention about how the Certificate was completed because although the

certificate on its face asked for one box to be ticked in fact it had had two boxes ticked:

1: "*All relevant circuit breakers have been tagged and locked out"*

2: *"All areas cannot be accessed and further investigation is required"*

41. The Certificate also indicated "*Action recommended by Electrical Contractor – Code 2 – Electrical Hazards may exist; proceed with works with an Electrician in attendance at all times".*



PAYNTER DIXON
BUILDING YOUR BUSINESS

Doc/Revision Number:	HSE-DOC-022-02-01
Revision Period:	12 Months
Last Revised on:	22/12/2011
Document Owner:	HSEQ
Approved by: GM	22/12/2011

ELECTRICAL ISOLATION CERTIFICATE

Project: ADVENTIST AGED CARE Job No.: AD/012

Date: 29.10.12 Time: 7.00 am

Project Supervisor requesting clearance: G BIDDLECOMBE

Licensed Electrician carrying out inspection: x LANCE RICHTER

I confirm that I have checked visually in areas explained to me by the site management and to the best of my ability the electrical installation and advise in the table below of its condition and the recommended actions required to maintain safe working conditions whilst Demolition / Construction works are undertaken. Each area affected by works is listed in the table below.

Area / Zone of Building	Status of Installation (tick one box below)					Action Agreed	
	All relevant Circuit breakers have been tagged and locked out	All live conductors have been removed	All live conductors have been identified and marked accordingly	All areas cannot be accessed and further investigation is required	No investigation or works have been undertaken in this area	Action recommended by Electrical Contractor (See Action Codes below)	Site Foreman to initial if in agreement with recommended action
ADMIN/CHAPEL	☑	☐	☐	☑	☐	2	☐GB
	☐	☐	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐	☐	☐

Action Codes (for use by an Electrician to advise of action required)

1. Proceed with works.
2. Electrical Hazards may exist; proceed with works with an Electrician in attendance at all times.
3. Cease or do not commence works in this area(s) until further investigation works can be undertaken to confirm the area is electrically safe.

Demolition / Installation / Contract Works

We further confirm that all works to date have been carried out in accordance with the relevant Australian Standards, Regulations and work practices and that all Notices of Inspections have been submitted for those parts of the works completed to date.

Signed for and on behalf of: ADVENTIST By: LANCE RICHTER

Signature of Authorising Electrician:

42. Lance Richter explained in evidence that he completed the certificate with the assistance of Gary Biddlecombe as part of a joint discussion. Lance Richter stated in evidence he was satisfied the demolition zone had been isolated but as there were two bathrooms that remained live in the Chapel area, he wrote the certificate that way to ensure he remained on site in case any further electrical isolation work was needed.

43. The Electrical Isolation Certificate was signed off by site foreman, Gary Biddlecombe who stated "*I believe that I was involved in general pre-start discussions with the electrician and demolition contractor addressing the issues in the Electrical Isolation Certificate...The demolition works proceeded with the electrical contractor in attendance at all times as was required by the Electrical Isolation Certificate."*

44. Mr Biddlecombe agreed not all areas in the demolition zone were able to be accessed and the intention was to start the work with an electrician on site. Mr Biddlecombe stated he would not have discussed the roof structure with Lance Richter because the roof was not initially going to be removed. He was not aware of any discussion about lights in the eaves or the soffits. He stated that the Lance

Richter also agreed in evidence that the eaves to the Chapel were initially not going to be removed as there was no intention to remove the roof, and in any case, cabling in that area would have been difficult to access by workers.

45. Mr Biddlecombe provided inductions to workers coming on site up until when a Safety Officer was appointed by Paynter Dixon and took on that role. In relation to electrical matters he stated he would have advised that all electrical wiring was to be treated as live and only electricians were to touch cabling.

46. Demolition work was undertaken by Frater Asbestos and Demolition. Anthony Frater recalls carrying out some demolition works on site, including "removal of a small section of roof, front drive through cover and internal strip out". Mr Biddlecombe stated he would have told Anthony Frater that there may still be hazards but the electrician would be on-site.

47. Nathan Werba recalls being involved in removing internal walls and fittings. Anthony Frater states when they arrived on site they were inducted by Mr Biddlecombe. He cannot recall anything being said in relation to electricity, however states "*in past jobs (including this one) works are not carried out until an isolation certificate is provided*". He also stated they would have been provided with a copy of the isolation certificate.

48. Christopher Frater also recalls a site induction, however cannot recall the contents. He does not remember seeing an Electrical Isolation Certificate or other procedures about electrical issues on site.

49. Nathan Werba does not remember seeing any Electrical Isolation Certificate or other procedures about electrical issues on site. Nathan Werba stated that usually when they do a demolition job the area is made safe before they get there.

50. Anthony Frater stated they were aware an electrician was onsite and "*If we ever needed an electrician we would go to the site foreman.*"

51. Christopher Frater states he cannot recall being told they had to have an electrician present with them at all times. He does recall there was an electrician working "*in the same general area as us*".

52. Christopher Frater also recalls the day they first arrived on site to start demolition there were electricians still cutting wires, so they could not start straight away. Christopher Frater remembers "*telling my guys not to cut or remove any wires and to get an electrician if we needed something doing*".

53. Nathan Werba remembers there was an electrician working in the same general area as them. "*He was doing other stuff but he was available for us if we needed him*."

54. Lance Richter stated: "*I was present with the demolition crew to ensure all areas were safe as indicated in the isolation certificate dated 29 October 2013, specifically as stated in the box titled 'actions recommended by electrical contractor see actions code below'. Code 2 was chosen 'Electrical hazards may exist – proceed with works with an electrician in attendance at all times'*"

55. Lance Richter further stated in an addendum statement: "*I confirm that I was onsite and available throughout the demolition undertaking other works in the vicinity of the demolition area… I was not told* electrician was there during the demolition. As far as he was concerned the building was totally open and no hazards could be seen and this included the soffits as everything could be seen from inside and out.

56. *or asked by anyone from Paynter Dixon to have an electrician on site during the demolition undertaken in October 2012…my recollection is that I was on site and available during the demolition undertaken in October 2012*.

57. If one holds regard for the site sign in book it is apparent Mr Richter was usually present whilst Frater staff were on site, but not at all times and not on every day.

58. Lance Richter stated no live electricals were found within the demolition zone during the demolition period. Mr Richter states he does not recall eaves to the southern or western side or the roof being removed during demolition. He states the ceiling had been removed to the pre-existing chapel upstairs leaving just the rafters exposed, with all wires removed from the roof area. All wires had been removed from the roof area within the administration area as well.

Removal of trusses to Chapel roof area in June 2013

59. Lance Richter stated he ceased working at the site in about late October 2012 (the sign in book suggests a last attendance on 5 November 2013), and was not present for/has no knowledge of the work undertaken to remove the trusses in June 2013. He was not asked to complete an Electrical Isolation Certificate for the removal of the trusses in June 2013, and was not asked to be present when this was completed.

60. Gary Biddlecombe recalls a decision was made mid-project that the roof trusses within the existing Chapel building would have to be removed. Paynter Dixon "issued a variation to KPM" for the truss removal work.

61. Peter Campbell (Project Manager with overall responsibility for complete project delivery with Paynter Dixon) recalls the decision to remove the trusses was made around the first quarter of 2013, due to structural constraints and compliance issues with the construction of a fire compartment wall. Mr Campbell stated this decision involved input from multiple parties including himself, the site manager, contracts administrator, subcontractor and building certifier. The options were to alter existing trusses or remove them and start again. The decision was made to proceed with removal and start again.

62. Mr Campbell states the removal of the trusses would have been a variation to an existing subcontract. The variation would have been put together by himself (as Project Manager) and the contracts administrator.

63. Mr Campbell stated in his statement "*I consider removal of the roof trusses as disassembling works and not demolition works*". This may be a matter of semantics but it is apparent demolition works under the Australian Standard AS 2601 requires an Electrical Isolation process to take place whereas lesser works may not.

64. What is important to understand is whether or not the roof trusses were being "demolished" or "disassembled". Queensland Electrical were not asked to complete any further electrical isolation or inspection of the roof structure.

65. When asked whether he attended a walk through in June 2013 prior to the trusses being removed, and whether the electrical contractor was present during that walk through, Mr Campbell stated: *I frequently visited the site and walked around the chapel on various occasions with all parties concerned to inspect and strategise the works. I cannot recall if the electrician was present though all of the existing building services had been isolated and stripped-out, so I assume there would have been no reason for him to attend*.

66. Another company, KPM Building Solutions Pty Ltd ('KPM'), was contracted to complete the removal/demolition/disassembly of the roof trusses. Peter Murphy,

a director of KPM, did a walk through with Paynter Dixon staff two weeks prior. He stated the interior of the site had been demolished by time of the walk through. Mr Murphy saw the brick veneer wall, timber frame, timber trusses. All services (electrical, plumbing) had been removed other than some temporary services, which were running through the ceiling space (water running to temporary drink fountains, power running to temporary boards on site). There was no scaffold around the exterior of the building at that time.

67. There was some temporary wiring inside the web of the trusses. Mr Murphy indicated this needed to be removed prior to KPM commencing work. At a further meeting Mr Murphy and either Mr Kruk or Mr Osburg from Paynter Dixon walked around the outside of the Chapel building. There was some discussion about live electrical services within "a two metre zone" of the demolition work (running down the wall on the western side of the building adjacent to the Chapel). This did not affect the work KPM had to do within the Chapel, but KPM was made aware of the existence of those services.

68. It is evident that Mr Murphy had been told that electrical isolation had been completed and Mr Biddlecombe had confirmed the removal of temporary services (plumbing and wiring) from the chapel building/roof. KPM received the "all clear" verbally and no electrical clearance form/certificate was shown/provided to KPM. This was confirmed by Mr Kruk who stated his *"recollection is that KPM were aware that the initial demolition works had been completed in 2012 to strip out the chapel area, and that the area had already been isolated electrically."*

69. Mr Murphy also stated it was Paynter Dixon's responsibility to ensure all services had been disconnected before KPM started. He said either Mr Biddlecombe or Mr Power told him the eaves and trusses had to be removed and "all is good to go".

70. Mr Biddlecombe stated he "*did not require the completion of another electrical isolation certificate as, in my view, the removal of the trusses was not a new demolition job and I understood that all existing permanent electrical cabling had been removed in October 2012*". When Mr Biddlecombe was asked by Neal Garaty of WHSQ whether the original Electrical Isolation Certificate dated October 2012 was "*for the internal of that building or for everything including the roof*", he replied "*…In hindsight we weren't actually even looking at removing the trusses back at that point*"

71. Mr Biddlecombe explained the decision to remove the trusses in June 2013 was a change to the original scope, and agreed with Mr Garaty's suggestion the roof and eaves would not have been considered back in October 2012 when the original Electrical Isolation Certificate was issued.

72. Mr Biddlecombe believes the temporary power cables and non-energised cables were removed from the ceiling space on 21 June 2013 before the trusses came down. He recalls this was his last day before going on leave, and believes the trusses were still in place on that day.

73. By this time there had been three days of handover between him and David Power, the new site foreman. Mr Biddlecombe stated when David Power came on board during that week prior to him going on leave, David Power "*sort of picked up the ball in that area [i.e. the work related to the removal of the roof trusses] and sort of liaised with KPM and the electricians…*".

74. David Power told Neal Garaty he did not recall organising or coordinating the work to remove the roof trusses, and did not recall the trusses coming off. When he took over as site foreman, he said he needed to concentrate on work being

undertaken inside the buildings on site, and there was "*a lot of stuff happening outside that I couldn't keep up with because I was trying to get my grip on what was going on inside*". David Power stated he was "*thrown onto the job at the last minute before Gary went on holidays*".

75. Mr Power stated that Mr Biddlecombe would have had to organise for KPM to do the demolition work including when and how, prior to the work actually being done. Mr Power could not recall being involved in any of that. Mr Power also could not recall doing a walk through with KPM or the electrical contractor.

76. Mr Power later provided a written statement to WHSQ stating "*When I commenced I also became aware that the roof trusses on the chapel building were to be removed and programming and coordination of this work was carried out prior to my arrival on site. I became aware that the subcontractor carrying out the truss removal was KPM Building Solutions. In my role as site foreman, I liaised with KPM Building Solutions in relation to the removal of the old trusses and the installation of the new trusses*."

77. Mark Osburg was employed as safety officer on site for three months from 8 February to 11 June 2013. He recalls KPM were engaged to do carpentry work and some renovation or alteration of trusses, but does not recall being involved in the decision to remove the trusses as part of fireproofing a wall.

78. Mr Osburg does not recall a discussion with Peter Murphy from KPM about any live electricity within two metres of "something". He also does not recall having any discussions or involvement with Mr Murphy in relation to the removal of the trusses (although he may have).

79. Mr Osburg vaguely recalls mentioning to someone that the existing building was still live (because it was still operational) so any wiring in that area was to be treated as live.

80. KPM later had to remove soffits in order to complete the Small Works Agreement. This was not specified within the original agreement. The work to remove the soffits commenced on or around 19 June 2013.

81. Peter Murphy advised Matthew Long and Michael Robertson (carpenters employed by KPM) of the need to remove/demolish the soffits and tails of the trusses from the western and part of the southern side of the chapel building, to make the removal process smoother when the crane was there.

82. Mr Murphy stated Mr Long and Mr Robertson were given the task to remove the soffits prior to the removal of the trusses, and that the soffits were removed on 19 June 2013. Mr Murphy stated he had not noticed any lights within the soffits on the southern side, but did notice a light in the soffit adjacent to the back door/near the stairs. Mr Murphy stated KPM did not have to demolish to that light.

83. Gary Biddlecombe asked Mr Murphy about the light back in June 2013. Mr Murphy asked Mr Long and Mr Robertson and they told him that when they got to that section, they tried to snap the soffit sheet and it "*snapped half way across the light*".

84. Mr Robertson told Mr Murphy "*the light was sort of hanging half in a soffit half not so he snapped the other section of soffit up and stuck it back into the roof space*", as he did not want to leave the light half hanging out of a ceiling.

85. Mr Long told Mr Murphy he spoke to someone from the site team about the light, but when he came back he could not see it so he assumed something had been

done about it. He did not realise Mr Robertson had stuck it back up into the roof space.

86. Mr Long recalls a light in the soffit about a third of the way along the wall on the western side of the building. He says Mr Robertson told him the light had to be removed before the soffits could be removed. Mr Long says he then went and saw either David Power or Gary Biddlecombe (but he was not sure which one), from Paynter Dixon and "*they said ok*". Mr Long says he told Mr Robertson that Paynter Dixon had been informed, and then returned to where he was working at another area on site. During subsequent work to remove the trusses, Mr Long does not recall seeing a light in the western side, but he was not sure.

87. Gary Biddlecombe recalls his last day on site as site foreman (before going on annual leave) was 21 June 2013. He says he was "*not asked to remove any lights from the soffits…by any person, nor was I aware that any such lights existed*".

88. Mr Power says he "*was not advised by anyone that a light had to be removed from the western soffit of the chapel building prior to the date of the incident on 11 July 2013. The first time I became aware of the light on the western side of the chapel was on the day after the incident when I saw it on the scaffold after it was found by electrical safety inspectors.*"

89. Mr Robertson says he was working on his own to remove the soffits from around the building. He was instructed to do this task by his supervisor, Mr Long.

90. Mr Robertson says as he was taking the soffit out he saw a light and asked Mr Long about it. He says Mr Long said he would get an electrician to have a look at it, as he did not know whether it might still be live. Mr Robertson says he went on with some other work whilst waiting for the electrician. Sometime later Mr Robertson says he asked Mr Long again about the light and was told to "*leave the light in the soffit sheet…just take the sheet out around it and leave the light sitting in the soffit cavity*".

91. Mr Robertson says he snapped the soffit sheet on the other side of the join, which "*left the light screwed into the soffit sheet…it was now loose from the rest of the soffiting around the building…now the soffit sheets were clear to be moved and the light was in its own piece of soffit sheet about 450mm. This is how I left the light…it was still mounted to the eaves*." Mr Robertson later clarified that he did not leave the light mounted to the eaves. Rather, he placed the sheet of soffit containing the light fitting in the space within the eaves, resting on top of the timber wall plate and the bottom corner of the truss. He did not recall seeing the light at any other time after removing it and placing it in the eaves.

92. The soffits were removed three to four weeks prior to the electrocution incident. After that work, the trusses were removed and then the new ones erected. During that time, Mr Murphy says he never noticed a light sitting out on the scaffold.

93. There was no electrician working alongside KPM at the time KPM removed the trusses or soffits, however there were electricians on site. When the trusses were removed, KPM had an exclusion zone to ensure no unauthorised people accessed the area. KPM were led to believe all the isolation work had been carried out and the "*area was ours*".

94. Mr Robertson also did not recall seeing or working alongside an electrician at any point.

Fatal electrical incident of 11 July 2013

95. Jesse Thallon recalls asking Matthew Ross to help him with the fascia and guttering he was installing on the new construction building, which was being attached to an existing building. Jesse stated in evidence that both of them went through a site induction on the day before they commenced. Jesse was working through another contractor Nautical Roofing. This company had a Safety Plan for the particular work site, which Jesse had received an induction on but it is apparent Matthew may not have. Relevantly the plan noted one of the risks was that of electrocution when working on scaffolds. It was also suggested to Jesse that where a breach of safety policy had occurred one of the corrective measures was to ensure the area was safe by setting up an exclusion zone to stop others from entering an unsafe area.

96. Jesse states they continued to work late as the work was taking a little longer than expected, and he wanted to get the job done that afternoon so he did not have to come back the next day. During the afternoon they were touching the scaffolding and putting bits of metal on to the roof and putting fascia up. Jesse did not feel any electric shocks whilst they were doing this.

97. Around 4.30pm the site foreman David Power came up to ask if they were going to get the job finished. Jesse told him they should be done soon as he was up to the last length of gutter by that time. Jesse, Matthew and the site foreman were the last people left on the site.

98. Jesse describes what happened next as follows:

The scaffold was a very tight squeeze on the last length of gutter. When I had to cut the back of the gutter away from the wall I was cramped underneath it. I knelt on the scaffold and there was something sharp on the scaffold and it stabbed me. I reached out to grab a concrete ledge to help move myself forward but when I did this I felt a shock in my hand (like I was being electrocuted). It was only a second and when I pulled my hand away from the concrete ledge it stopped. I initially thought it may have been a nerve being pinched when I reached out. I lifted my knee and touched the wall, and nothing sort of happened. I then put my other knee down onto the scaffold and I then put my hand back onto the same wall and I received another shock.

I then stood up and said to Matt: "Hey, I think I'm getting an electric shock over here". I then looked around the underneath area to see if I could see any wire hanging on the scaffold. I did see a roll of electrical cable but it didn't seem to be hooked to anything that I could see. Matt came over to see what was happening as I climbed up onto the timber roof frame.

The scaffolding was really tight together, and when Matt went to slide in between it, he just wrapped his hands around the pole. I had my back to Matt at this point and thought I heard him say a slight "help". I turned around and I saw that Matt was holding onto an upright part (pole) of the scaffold. I looked closer and saw that Matt's head was hanging back and appeared to be jolting.

At first I thought Matt was having a joke about it and I said: "Come on mate what are you doing?". But Matt didn't reply. When I went to push Matt I was zapped. This was when I knew it was serious.

I reached back at him and tried to free him from the pole but when I grabbed him I was getting electrocuted. I fell back from his body and screamed out for help. I then grabbed his shirt and pulled back as hard as I could and he fell onto the timber framing I was on. There were bits of scaffolding everywhere, so Matt's leg and arm was still touching the scaffolding, as I was trying to drag him up onto the timber valley. When I touched Matt I kept getting shocked.

By this time the foreman had heard my screams, and had started running up the stairs of the scaffolding. I told the foreman not to come up because the scaffolding was live and had electricity running through it. I kept trying to pull Matt up onto the timber frame but his body was too heavy and every time either Matt or I touched any metal – I got shocked.

99. Jesse recalls his and the site foreman's efforts to perform CPR on Matthew, with the assistance of the Triple Zero operator who was giving instructions by telephone. Jesse states that phone call lasted around 15 minutes and ended when ambulance officers arrived and took over care of Matthew.

100. Mr Power was on site as site foreman. At 4.30pm Jesse Thallon and Matthew Ross were the only two tradespersons left on site. They were finishing installation of a new gutter and attaching it to the old gutter on the chapel building. Mr Power recalls being up on the scaffolding with them both sometime before 5pm. They said they had about half an hour of work left to go and asked if they could stay on to finish the work so they could complete their job and Mr Power agreed.

101. Mr Power left the scaffolding to attend to some tasks in other areas of the site. He closed the site office and walked to the site access gate at the southern end of the construction site. Mr Power describes that time as follows:

I was standing there at the time, and I checked my phone. It was about 7 minutes past 5pm… Because of the time of the afternoon, it was starting to get dark. At that time, I heard a lot of yelling. The gate is approximately 55-60 metres away from where the two tradesmen were working. I heard a lot of commotion and yelling. I looked up, and made my way towards the area where the tradesmen were working. They were working in a corner on the second deck of scaffolding adjacent to the first floor of framing (first floor of roof structure), at the top of the stairs. Where the scaffold rose up, there is an upright bar. Matt ROSS was standing holding it. His colleague (Jesse THALLON) was up on the timber roof trusses behind Matt ROSS. I started coming over, asking "What is going on?". Jesse told me that there is a problem going on up here. While I made my way from the gate, I saw Jesse came up behind Matt, and as much as it was a battle (because Matt was rigid and was holding on), Jesse used his body weight to break Matt free.

102. Mr Power then made his way up to where Jesse Thallon was, first via the scaffold stairs then by scaling the inside of the frame of the building and through the timber roof trusses. Mr Power says when retracing his steps later he could not see how he would not have touched any of the scaffolding, however at no time did he feel a shock.

103. They then worked together to pull Matthew onto the timber trusses and began performing CPR. Mr Power called emergency services who provided directions for CPR over the phone until ambulance officers arrived.

104. Mr Power met the ambulance officers on the road and brought them up to where Matthew and Jesse Thallon were, through the internal stairs. Mr Power recalls some ambulance officers climbing up through the roof trusses to get to Matthew. Mr Power had also pulled some mobile aluminium scaffolding over (that was not attached to any of the other scaffold).

105. A decision was made to bring Matthew down from the roof, and Mr Power assisted ambulance officers to do this. Mr Power says by this time it was getting quite dark. This was around 5.30pm. He brought out a light stand to assist the ambulance officers to see.

106. Mr Power then describes others turning up at the site including Fire Services, Energex, WHSQ investigators, and Paynter Dixon site personnel. Mr Power says WHSQ investigators shut down the site and secured it.

Events post 11 July 2013

107. After Matthew's tragic death a number of persons and agencies attended the site. These included emergency personnel, Queensland Police, WHSQ inspectors, ESO inspectors and Paynter Dixon staff.

108. ESO inspectors Don Hewett and Malcolm Cooper arrived at about 7.15pm and entered the site. They met with WHS inspectors Neale Garaty and Peter Westcott and Daniel Dunne, HSEQ officer with Paynter Dixon. Energex staff were also present and confirmed power to the site had been isolated. They identified six distribution boards onsite and confirmed that, for all six distribution boards, none of the circuit breakers were in the off position and all safety switches had been tested recently and were still in test date. There was no evidence of damaged electrical equipment or wiring that may have contributed to the electric shock at the incident location. Due to poor lighting a decision was made to return the next day.[5]

109. Mr Garaty issued a Non-disturbance notice to Paynter Dixon prior to leaving the site by giving the notice to Mr Dunne. The notice required the company to "*preserve the site at which a notifiable incident has occurred*". Measures to be taken to preserve the site or prevent disturbance of the site were described as: "*No one is to enter building or access scaffold*".

110. The notice stated *"The legislation requires that the person to whom a non-disturbance notice is issued must, as soon as possible, display a copy of the notice in a prominent place at or near the workplace, or part of the workplace at which work is being carried out that is affected by the notice*". Despite this the notice was not displayed in a prominent place or at all.

111. The next morning Paynter Dixon staff, various union officials and WHS and ESO inspectors attend at various times early the next day. The union officials were Mark Bateman from the Electrical Trades Union, Royce Kupsch from the CFMEU and Tony Stott of the Builders' Labourers Federation.

112. At one point Mr Bateman was seen to remove leads from a temporary electrical board at the base of the scaffold and climb on and walk onto the scaffold. Mark Osburg from Paynter Dixon stated the boards were on the ground level on the eastern side of the building. The union officials had been told by Paynter Dixon staff that WHS had issued a notice of seizure of the site. The other union officials walked the perimeter of the site paying particular attention to the scaffolding which in their opinion was not properly tied in. This was recorded on their mobile reporting tool.

113. Mr Bateman had provided Paynter Dixon with an Entry Notice under s117 of the *Work Health and Safety Act 2011* for a suspected contravention of the Act, related to the electrical incident. He says he was told the job was closed and there was no entry permitted but was not specifically told about a Non-disturbance notice.

114. Mr Bateman agrees he entered onto the scaffold to undertake a visual inspection of switchboards, which may not have complied with Australian Standards. He

[5] A further two electrical distribution boards were identified the following morning, both of which were confirmed to be electrically isolated with all circuit breakers found in the on position.

says he did not tamper with the scene and did not fully appreciate the importance of not disturbing the scene of a fatal electrical incident. Once he was informed of this in fairly strong terms by Paynter Dixon staff and Mr Garaty he exited the site.

115. What can be said about this particular breach of the Non-disturbance Notice is that any interference by Mr Bateman was regrettable but it involved electrical leads on another part of the construction site well away from where Light Fitting Z was found or where Matthew had died. His actions and those of other union officials did not ultimately have any impact on the integrity of the evidence relating to what caused Matthew's death.

116. ESO inspectors Hewett, Cooper and Paul Finnen attended along with WHSQ inspector Garaty. The ESO inspectors conducted a number of tests on the day and subsequently. Their findings are dealt with in their report.

The adequacy and timeliness of investigations conducted by police, work health and safety and electrical safety authorities in relation to the death.

Investigation findings of Electrical Safety Office

117. An Electrical Incident Examination Report dated 19 December 2013 was prepared jointly by ESO inspectors Paul Finnen and Don Hewett.

118. The report noted ESO inspectors Cooper and Hewett had located a damaged light fitting (Light Fitting Z) approximately 30 metres from the incident, not associated with construction wiring, in contact with the mental water pipe, which in turn was in contact with scaffold. Light Fitting Z was supplied via a cable from a junction box approximately one metre above the light fitting. The internal metallic frame of the light fitting showed signs of rust around the ballast. The frame of the fitting was separated from the plastic base and the earth connection on the metallic frame of the light fitting was not connected to the installation earthing.

119. Electrical testing was conducted and it was found that if the active switch wire was energised, a path would exist for a current to flow from the switch wire to the scaffold. After Light Fitting Z was photographed it was then disconnected from the electrical source at the previously identified junction box by separating all connected cables. Further test results noted that the active circuit was then traced back to a photoelectric (PE) cell, which switched on and off at a predetermined level of light normally associated with dusk and dawn. The photoelectric cell was located on the existing installation. The continuity tests conducted at the PE cell between the red active conductor and adjacent guttering indicated a short circuit. A test between the guttering and PE cell indicated 0 ohms. This indicated a connection between the installation earthing system and the guttering.

120. Further testing was conducted to locate the source of the short circuit (active to earth). A visual examination revealed that several light fittings were connected to the same circuit as Light Fitting Z. At Light Fitting Y it was found that the neutral and earthing conduct were transposed at the lamp holder. This would allow current to flow in the earthing system when the light fitting was energised. Light Fitting Y was mounted on the soffit near the front entrance of the existing aged care facility.

121. To determine if the transposed conductors were the source of the short circuit, ESO officers disconnected the electrical cables of Light Fitting Y. Testing at the PE cell confirmed that the short circuit (active to earth) previously identified no longer existed.

122. Further calculations then determined that the current flow through Light Fitting Y would be of insufficient magnitude to cause electrocution. It was decided that further investigation be conducted to determine if another shock path existed.

123. The ESO report stated that Light Fitting Z was seized by WHSQ inspector Garaty, but it is clear this was not the case and it was retrieved sometime later from Paynter Dixon when Mr Garaty issued a notice on 22 July 2013. Light Fitting Y was seized on the day. Mr Dunne of Paynter Dixon was present when the ESO inspectors inspected Light Fitting Z. Mr Dunne also took photographs. After tests by the ESO found no electrical connection the ESO inspectors disconnected the Light Fitting Z from the junction box and carried out further tests. According to Mr Dunne it was then left on a retaining wall and he retrieved it and brought it home in his car and then to the site office where it was eventually retrieved when requested by WHSQ.

124. On 17 July 2013 the ESO officers returned to the site for reinspection of construction wiring. More photographs were taken at the location where Light Fitting Z was found during initial inspection on 12 July. Energex employees were met on site to attach monitoring equipment to the incoming power supply which would identify any unusual voltage readings in the area.

125. On 5 September 2013 WHSQ Inspector Garaty released to the ESO inspectors Light Fitting Z. A visual inspection revealed evidence of electrical arcing on the metallic frame of the light fitting. ESO inspectors then returned to the construction site to further inspect the water pipe. The arc mark on the light fitting corresponded with an arc mark on the water pipe in the position that the light fitting was found on 12 July 2013 as shown in photographs taken at the time.

126. At inquest it was questioned of the officers as to their ability to positively identify those marks as arc marks. The ESO inspectors stated their observations were drawn from years of experience as electricians having seen numerous arc marks during that time.

127. Calculations indicated there would have been insufficient current flow to operate the circuit protective device for this circuit but a current flow of sufficient magnitude to cause a fatal electrical shock.

128. On 13 September 2013 the ESO inspectors seized the PE cell from the site and further testing proved the correct operation of the PE cell.

129. In the summary of findings the ESO inspectors stated that testing indicates that when the PE cell switches to the “ON” position the following occurred:
    1) Transposition of conductors at Light Fitting Y results in current flow in the protective earthing conductor. Guttering is energised via continuous path to protective reversing conductor.
    2) An electrical circuit would be completed if simultaneous contact was made by a person between the guttering and “*scaffold B*” (the scaffold Matthew was in contact with when he was electrocuted). The scaffold was in contact with the water pipe.

3) ESO findings suggests that with the above conditions met then shock current would flow between the guttering and scaffold B. This simultaneous contact would have resulted in a current flow of unknown magnitude, which may contribute to a person receiving an electric shock. The ESO calculations indicated that insufficient current would flow to cause a fatal electric shock.
4) Light Fitting Z was initially found with no electrical connection between Active and scaffold.
5) The electrical arc mark on Light Fitting Z corresponds with the arc mark found on the water pipe and would indicate that there had been current flow between Light Fitting Z and the water pipe.
6) The current flow through the scaffold via Light Fitting Z indicated by calculations, would be of sufficient magnitude to cause a fatal electric shock if an electrical circuit was completed by simultaneous contact between a person and the guttering and scaffold B.
7) Jesse Thallon's statement is consistent with the scenario of the person receiving the electrical shock being in simultaneous contact with the guttering and scaffold B.

130. Apart from the circuit involving Light Fitting Z, no other circuits were identified by the ESO inspectors as potentially being involved in the electrical incident.

131. Mr Cris Kerrison who provided a report when commissioned by Paynter Dixon, stated in his report that it was credible that Light Fitting Z connected as described could result in a fatal electric shock. He noted however a number of uncertainties in the evidence gathered by the ESO inspectors and stated that as a result, other unidentified causes of the electric shock should not be ruled out. Mr Kerrison at inquest agreed there were potentially many different circuits within a site of that nature and not all of them were tested, nor was he suggesting they should have been. He confirmed in evidence that he was unable to identify any other possible circuits other than some slight variations in what may have happened around light fitting Z.

132. ESO inspector Cooper agreed it was possible there were other sources but he believes Light Fitting Z was the most probable cause of the electrical incident. ESO inspector Finnen was confident in the involvement of Light Fitting Z. He stated that on the night of the incident Energex had disconnected power to the construction site, and the only power that was then found in the vicinity of the incident was the cable supplying Light Fitting Z and Light Fitting Y. The reason that cable's power was not shut off that night is because it came from a distribution board servicing an occupied part of the aged care facility, and Energex did not shut down power to the aged care facility, just the construction site.

The evidence of Cris Kerrison

133. Mr Cris Kerrison was commissioned by the legal representatives for Paynter Dixon to provide a report to the Coroners Court and specifically to provide an opinion in relation to the findings of the ESO's Electrical Incident Examination Report. Mr Kerrison is an electrical engineer with 30 years of experience particularly as a technical expert in the area of electrical equipment for hazardous areas and has previously provided expert reports.

134. Mr Kerrison agreed with the ESO findings 1 and 2 above. In relation to finding 3 he agreed that it is not credible that Light Fitting Y connected as described would result in a fatal electric shock.

135. Mr Kerrison agreed with finding 4 and that finding 5 was credible. With respect to finding 6 he agreed that it is credible that Light Fitting Z connected as described could result in a fatal electric shock. He agreed with finding 7.

136. Mr Kerrison stated that Light Fitting Z components were discovered in an arrangement, which would not cause an electric shock to a person in simultaneous contact with the guttering and scaffold B. Specifically Light Fitting Z's active conductor was not in contact with any of the scaffold, the metal water pipe, or metal frame of Light Fitting Z. In evidence Mr Kerrison said there could be a number of reasons why even in this state that Light Fitting Z could have been the cause. He noted that moisture could have been present, which is a good conductor in a situation where the active conductor was sitting close but not touching the metal. In that respect it was noted that there had been rain the day before and ESO inspectors noted the site to be wet and muddy.

137. The possibility of movement was also considered such that the active conductor was in contact at the time of the electrocution but moved after the incident and was no longer in contact when it was photographed. In that regard there were some issues raised as to the stability of the scaffold by the union officials and it is noted Mr Dunne of Paynter Dixon also identified issues of insufficient bracing on the scaffold and had this rectified subsequently. On the night in question there were of a number of emergency services personnel, investigators and company staff so any movement, particularly on the scaffold may have resulted in the shifting of the active conductor prior to it being identified and photographed. Mr Kerrison noted Fire and Emergency Services officers attended and noted no current through the scaffold.

138. Mr Kerrison stated that while it is credible that Light Fitting Z as described in the report was the source of electricity for the fatal electric shock, there are a number of issues that in his opinion were not covered in the report. These were as follows:
    a) The path of electricity relating to both light fittings, from the transformer active terminal back to the neutral point of the transformer via the various earth paths, is not quantified by detailed measurement. The actual current paths, resulting current flows and prospective touch voltages are therefore subject to interpretation.
    b) The impedance from the metal water pipe to the Main Earth Bar is not detailed.
    c) The impedance from the metal water pipe to scaffold B is not detailed.
    d) The serviceability of the supply circuit breaker was not determined.
    e) Whether the metal water pipe was or should be bonded to the earth system is not considered

139. Mr Kerrison stated that as a result of the uncertainties referred to above, he believes other, unidentified causes of the fatal electric shock, should not be ruled out.

140. Mr Kerrison noted that the seizure and subsequent testing of the PE cell appears to have occurred approximately two months after the initial site inspection. Whether the seized PE cell remained unmodified in the intervening period between the incident and the date of seizure and subsequent testing is unknown.

He stated it could therefore be considered credible that (provided this was the same PE cell in the same condition) for all findings 1-7, the PE cell is considered to have activated and switched to the "ON" position. This would then supply electricity via the switched active conductors to Light Fitting Y and Light Fitting Z, which are the subjects of these findings.

141. Mr Kerrison stated that his interpretation of findings 1, 2 and 3 was they related only to Light Fitting Y. Mr Kerrison agreed that in relation to Light Fitting Y he believes it is credible that insufficient current would flow to cause a fatal electrical shock.

142. With respect to finding 4, which was that Light Fitting Z was initially found with no electrical connection between active and scaffold, in his opinion this is a correct finding, in so far as the active conductor was not found to be in physical contact with the metallic light fitting body, metal water pipe or scaffold B when initially located during the site inspection.

143. With respect to finding 5 that the electrical arc mark on Light Fitting Z corresponds with the arc mark found on the water pipe he believes it is credible that these were produced due to electric current flow between the damage to Light Fitting Z and the metal water pipe although he is not aware of any testing confirming the marks were the result of electric current flowing.

144. In relation to finding 6, Mr Kerrison stated that notwithstanding finding 4 (that Light Fitting Z was found with no electrical connection between the Active and scaffold), he believes it is credible that the impedance of the earth fault loop could have been sufficiently high that the fault current that flowed was so low as to prevent operation of the 10 A circuit breaker and the prospective touch voltage between the guttering and scaffold B could have exceeded 50 V a.c. and could have been high as approximately 200 V a.c. Such a voltage is consistent with harmful physiological effects to a person in simultaneous contact with the guttering and scaffold B. He noted that it is not possible to determine the prospective touch voltage with precision based on the information provided in the report.

145. Mr Kerrison stated that in his opinion finding 7 is credible, namely that the evidence of Jesse Thallon is consistent with the scenario of the person receiving the electrical shock being in simultaneous contact with the guttering and scaffold B.

146. In his evidence Mr Kerrison agreed that even with the limitations he expressed, it remained his opinion that it was credible that Light Fitting Z was the source of the fatal electrical current. Mr Kerrison said he was unable to come up with any other source of the current based on the information available. He agreed that the timing of the activation of the PE cell, at dusk and the fatal incident lends credence to Light Fitting Z being the source.

147. Mr Kerrison was also asked about the evidence of Jesse Thallon describing him feeling a shock when he was kneeling on the scaffold and at the same time touched a concrete wall and the shock going away when he lifted his knee. Mr Kerrison stated this provided more support for Light Fitting Z being credible as being the source of the fatal electrical current and not Light Fitting Y. The probable reason why Mr Thallon did not receive a fatal shock was due to the resistance or impedance of the concrete wall as distinct from the metal guttering Matthew had contact with. As well he noted Matthew had his hands around the

scaffold pole and electricity tends to make the hands clench such that they would have gripped the pole, maintaining contact for a longer period of time, whereas Mr Thallon just touched a flat concrete surface.

148. Mr Kerrison also stated that the scaffold was live and potentially persons standing on the ground and touching the scaffold could have created the electrical circuit.

149. Mr Kerrison was also requested by my office to provide an expert report on a specific question as follows *"Please consider the scope of Electrical isolation, testing and compliance work undertaken within or around the building in which Light Fitting Z was originally located (as evidenced by the attached exhibits), and advise whether there is anything in connection with that work that would further explain/clarify potential involvement of Light Fitting Z in the Electrical incident that resulted in Matthew Ross's death.*

150. Mr Kerrison confirmed in his role as an electrical engineering expert witness, that having reviewed the exhibits that have been provided to him, he was unable to identify anything with the works performed that further explains or clarifies the potential involvement of Light Fitting Z in the electrical incident that resulted in the death of Matthew Ross.

151. Mr Kerrison was also asked about the difference between Circuit Breakers and Residual Current Devices. He stated Circuit Breakers pick up large voltages and this causes the circuit to trip. They are meant to protect equipment. A RCD checks current going in and out and would have picked up the transposition in Light Fitting Y; would have picked up the leakage from Light Fitting Z and would have made a difference to the outcome for Matthew.

152. Mr Kerrison was asked about the retrospective fitting of RCDs, given it is mandatory for RCDs to be fitted in new buildings. He stated this needs to be discussed within the industry generally.

Queensland police investigation

153. The QPS investigation was conducted by Detective Sergeant Christopher Lafferty.

154. General duties police from Cleveland station attended at the scene and spoke with Neale Garaty of WHSQ who informed them he would be conducting an investigation into this workplace incident.

155. Detectives from the Cleveland Criminal Investigation Branch were advised of the incident at approximately 4.00 pm on 12 July 2013. Detective Lafferty spoke with Neale Garaty confirming he was undertaking an investigation. Detective Lafferty took statements from David Power and Jesse Thallon who were the only two people present. Upon taking the statements he was satisfied that neither of these witnesses had any criminal involvement in Matthew's death.

156. It is apparent QPS played no further part in the investigation and relied on the report of WHSQ. Detective Lafferty completed a report to the coroner dated 2 December 2015 and appropriately stated that he deferred to the findings of WHSQ in relation to the cause of the electrocution.

Workplace Health and Safety Queensland Investigation

157. The WHSQ investigation commenced on 11 July 2013, the evening of the incident. The ESO report became available in December 2013. In July 2015, two years after the incident, the report of the WHSQ inspector had not been completed and was passed on to Principal Inspector Ian Williamson, who completed the coronial report in December 2015. Under the *Electrical Safety Act 2002* the time limit for commencement of a prosecution expired after 12 months, subject to some capacity to extend the time limit where a coronial inquest is undertaken. Inspector Williamson's report noted a number of concerns about the WHSQ investigation and the efficacy and admissibility of the evidence gathered, relevant to the prospect of a successful prosecution.

158. Firstly, he expressed concerns that the scene had not been physically secured overnight. He also makes reference to the actions of the union official Mark Bateman making his way onto the scaffold and removing electrical leads. Inspector Williamson stated it is unknown to what extent the scene was contaminated and what effect this would have on the ESO's findings. In that respect I have come to a conclusion that it is unlikely Mr Bateman's actions, regrettable as they were, contaminated the scene.

159. A greater concern was expressed with respect to the continuity of evidence in relation to Light Fitting Z given it was not secured at the scene and was later produced under a requirement pursuant to the *Work Health and Safety Act 2011* rather than under the *Electrical Safety Act 2002.* It is not for me as a coroner to comment on the admissibility of evidence that potentially may proceed to another forum, but they are matters that a prosecution authority needs to consider.

160. The delays in the WHSQ investigation and the appropriateness of the investigation by the lead investigator Neale Garaty were referred by the Ethical Standards Unit of the Department of Justice and Attorney General to Ashdale Workplace Solutions to conduct an independent investigation.

161. The terms of reference for the investigation included examining allegations that Mr Garaty had failed to undertake the investigation in accordance with Office of Fair and Safe Work Queensland (OFSWQ) policies and procedures and whether the Regional Investigations Manager supervising Mr Garaty, supervised the investigation in accordance with OFSWQ policies and procedure.

162. The Ashdale Report found that Mr Garaty had not complied with the OFSWQ operational procedure because he:
    - Failed to complete the investigation within six months and there was no operational reason that justified the length of the investigation i.e. more than two years
    - Failed to carry out investigation activities as directed throughout the case management process
    - Failed to provide full and accurate investigation progress updates to the case management team and his supervisors
    - Failed to record a running sheet of those investigations.

163. The investigation found that Mr Garaty had been under a great deal of personal stress, due to a very difficult family situation, which greatly impacted on his ability to carry out his work. Rather than disclosing this to his supervisors, including the Regional Investigations Manager, Mr Garaty repeatedly assured them the

investigations he was responsible for were progressing, and therefore no early intervention occurred to relieve him of his work.

164. In relation to the Regional Investigations Manager, the Ashdale Report concluded that his overall performance was largely beyond criticism as he:
    - Allocated the matters for investigation in a timely manner
    - Arranged regular case management meetings
    - As was usual business practice relied on the verbal advice provided by Mr Garaty regarding investigation progress as being true and correct.
    - The Regional Investigations Manager had been instructed to take a supportive approach with Mr Garaty to give him some space due to the personal issues
    - When management became concerned with Mr Garaty's performance in October 2014, more rigorous case management measures were implemented which included file reviews and very detailed instructions regarding the completion of outstanding tasks
    - When this did not achieve the desired results, management action escalated in early 2015. Despite a stronger and more demanding approach there was no performance improvement. As a result, management took decisive action in July 2015 by reallocating the incomplete investigation to other inspectors and removing all investigation related duties from Mr Garaty by transferring him to a compliance role.

165. The investigation identified systemic issues in relation to the knowledge and application of policies and procedures. Part of the rationale of the recent appointment of a State Investigations Manager was to address such issues.

166. There was reference to some confusion as to whether the time limit of 12 months applied given the commencement in 2014 of the amendments to the *Electrical Safety Act 2002* extending the time limitation to two years. There was a submission there was a lack of training on the time limitation and other issues regarding the amendments to the ES Act but this was not a matter considered in any detail by the inquest and there were clearly more substantial reasons why the delay in completing the investigation occurred.

167. In evidence Mr Garaty agreed he had read the Ashdale Report and accepted that the factual issues described in the report were accurate. He agreed there were delays in completing the investigation. He agreed in hindsight Light Fitting Z should have been seized that day but he relied on the ESO opinion it was not the source. He agreed it should have been seized to exclude it.

168. Mr Garaty did not agree with the opinion of his supervisors that more work need to be done to complete the investigation and still believes the investigation was complete in October 2014.

169. It is noted that Mr Garaty no longer is involved in investigations and has been transferred to a compliance role within WHSQ.

Conclusions on the Issues

170. In reaching my conclusions it should be kept in mind the *Coroners Act 2003* provides that a coroner must not include in the findings or any comments or recommendations, statements that a person is or maybe guilty of an offence or is or maybe civilly liable for something. The focus is on discovering what happened, not on ascribing guilt, attributing blame or apportioning liability. The

purpose is to inform the family and the public of how the death occurred with a view to reducing the likelihood of similar deaths.

171. A coroner should apply the civil standard of proof, namely the balance of probabilities but the approach referred to as the *Briginshaw*[6] sliding scale is applicable. This means that the more significant the issue to be determined, the more serious an allegation or the more inherently unlikely an occurrence, the clearer and more persuasive the evidence needed for the trier of fact to be sufficiently satisfied that it has been proven to the civil standard.

172. With respect to the *Briginshaw* sliding scale it has been held that it does not require a tribunal of fact to treat hypotheses that are reasonably available on the evidence as precluding it from reaching the conclusion that a particular fact is more probable than not.[7]

173. It has also been stated that *"Evidence of possibility… is admissible and must be weighed in the balance with other factors, when determining whether or not, on the balance of probabilities, an inference… could or should be drawn. Where, however, the whole of the evidence does not rise above the level of possibility, either alone or cumulatively, such an inference is not open to be drawn."*[8]

174. It is also well established legal principle that in considering, for instance, a circumstantial case, all the circumstances established by the evidence are to be considered and weighed and the evidence is not to be looked at in a piecemeal fashion.[9]

175. I have received very helpful comprehensive submissions from Counsel Assisting, Ms Jarvis, and from counsel who appeared for the parties who were given leave to appear at the inquest. There are a number of uncontroversial findings that can be made including that Matthew died of electrocution. The most controversial decision to be made is whether Light Fitting Z was the most likely cause of the electrocution.

How Matthew died

176. I can make a finding based substantially on the evidence established at autopsy and of those present (Mr Thallon and Mr Power) that Matthew died after he sustained a fatal electrical shock at approximately 5:07 PM on 11 July 2013. At that time he was installing guttering and fascia at a construction site.

177. At the time that he was electrocuted, his hands were in contact with the vertical section of a scaffold pole and his right leg was in contact with a horizontal section of the newly installed guttering. Whilst in that position there was a flow of electrical current through his body sufficient to cause his death.

Was Light Fitting Z the source of the fatal electrical current?

178. Counsel Assisting submitted that looking at the whole of the evidence and following her chain of reasoning and making reasonable inferences based on the evidence that I could be satisfied on the balance of probabilities that Light Fitting Z was involved in how Matthew died. This submission was generally supported

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[6] *Briginshaw v Briginshaw* (1938) 60 CLR 336 at 361
[7] *Hurley v Clements* [2010] 1 Qd R 215 at 233
[8] Chief Justice Spigelman, *Selstam Pty Ltd McGuiness (2000) 49 NSWLR 262* at [79]
[9] *R v Baden-Clay,* (2016) 258 CLR 308 at [47]

by the legal representatives of the family and others who appeared, with the exception of counsel representing Paynter Dixon.

179. Paynter Dixon submitted the evidence is not sufficient to support a positive finding that Light Fitting Z was involved. Their submission chiefly dealt with the critical issue as to whether I could safely be satisfied that the active conductor of Light Fitting Z was in touch with other conductive objects at the time of the electrocution.

180. As a finder of the facts the difficulty for me as posed by counsel for Paynter Dixon, and I agree this a significant issue, is that when Light Fitting Z was first observed on the morning of 12 July 2013, the brown active conductor was not touching any of the scaffold, the water pipe or the metal frame of Light Fitting Z. As well they submitted that if Light Fitting Z was involved in Matthew's death, the scaffold must have been electrified at the time it was accessed by those who did so on 11 July 2013, but clearly they were not also electrocuted. This issue was then compounded by a number of investigation concerns, which may have disturbed the continuity of evidence particularly relating to Light Fitting Z.

181. It is in my view useful to set out the chain of reasoning submitted by Counsel Assisting. It is as follows:
    - For Matthew to have been electrocuted, his body must have completed an electrical circuit.
    - The electrical circuit completed by Matthew's body must have involved the two conductive objects Matthew was in contact with at the time, namely the scaffold and the guttering.
    - The only circuit ultimately identified by the ESO inspectors as having potential to cause a fatal electric shock to someone in simultaneous contact with the scaffold and the guttering was the circuit involving Light Fitting Z. The electrical expert, Mr Kerrison, agreed it was credible this circuit, if completed at the time of the electrical incident, could have resulted in a fatal electrical shock.
    - For the circuit to have been completed, the active conductor within Light Fitting Z had to have made electrical contact with either the scaffold, the metal water pipe or the metal components of Light Fitting Z.
    - When Light Fitting Z was initially observed on 12 July 2013, the exposed end of the active conductor was not in physical contact with any of those objects. This observation was consistent with the fact that tests conducted on 12 July showed no electrical connection between Light Fitting Z and the scaffold and also consistent with testing conducted on the evening of 11 July 2013, which did not identify any live power at the incident location.
    - That I could safely infer for a number of reasons that the active conductor had an electrical connection between one of the conductive objects being either the scaffold, water pipe or the metal frame of Light Fitting Z at the time Matthew died.

182. It was submitted by Counsel Assisting there were a number of possibilities why I could make that inference including:
    - The possibility of movement of Light Fitting Z sufficient to break the electrical circuit sometime soon after the incident due to the extent of access to the site and scaffold soon after the incident, stability issues with the scaffold structure, the arrangement of Light Fitting Z relative to the cables and junction box it was attached to, and the closeness of the

exposed end of the active conductor to the metal components of the light fitting when found.

- Given the conductive nature of water and the fact that there was evidence that there had been some rain at the site as conditions were described as “wet and muddy” but fine at the time it is possible moisture was present that completed contact between the active conductor and the metal components of Light Fitting Z.
- The discovery of electrical arc marks consistent with electrical contact between the metal component of the light fitting and the metal water pipe.
- Apart from the circuit involving Light Fitting Z, no other circuits were identified as potentially being involved in the electrical incident.
- The timing of the electrocution relevant to the time at which the photo electric cell would normally activate the circuit involving Light Fitting Z.

183. I accept that the evidence with respect to moisture being present is not particularly strong but it should not be discounted altogether. The same may be said for the other possible explanation of movement.

184. The other issues referred to above however, do provide very significant evidence capable of supporting inferences that would lead me to be satisfied on the balance of probabilities that Light Fitting Z was involved in how Matthew died, when you consider them together. It is accepted there are issues concerning loss of continuity of evidence and the investigation took a turn when it was realised Light Fitting Y was not involved and the ESO inspectors had to backtrack somewhat. This certainly then allowed for there to be a critical look at the evidence and how it was gathered. However, as a whole there are too many pieces of evidence that when put together lead to an inevitable conclusion. It just cannot be put down to coincidence.

185. The presence of the arc marks is one issue. The ESO inspectors did not conduct specific tests to show the marks seen were electrical arc marks. They stated they were certain based on their extensive experience and I accept this evidence. Although the arc marks were not identified specifically on 12 July 2013, there were photographs taken, which when later considered in conjunction with the light fitting and the pipe provided a compelling picture when combined with the other evidence. I accept it would have been much preferable if that identification occurred earlier, but it is what it is.

186. The timing of the electrocution incident coincided with the very likely activation of the PE cell. Again it would have been preferable to have the PE cell seized that day or soon after and tested for its functionality, rather than some time down the track, but it is evidence that has to be considered in the context of the other evidence.

187. It is accepted that testing carried out by Energex on the evening of the incident did not find any electrical current through the scaffold is potentially confounding. When Energex shut down power to the construction site that night it did not shut down the distribution boards supplying power to that part of the site continuing to be used by residents, which included the circuit involving Light Fittings Z and Y. As such, that circuit would have been connected to a live distribution board at the time of Energex’s testing. It is also evident that there were eight temporary distribution boards providing power to the construction site. When inspected that evening and the following morning none of the circuit breakers or safety switches

on those boards had tripped, indicating the temporary construction distribution boards were not the source of the fatal electrical current.

188. The fact that no active circuit was found on the scaffold when tested by Energex can only mean there was only a brief period that evening when the circuit involving Light Fitting Z was activated and consistent with the active conductor losing contact with the fitting or the metal water pipe/scaffold. The explanation for this was the subject of some contention and included movement of either the scaffold, the fitting, or the active conductor; and/or the presence of moisture. I accept I cannot make a positive finding as to which of these factors provide the explanation but they are the only ones offered on the evidence of the ESO inspectors and Mr Kerrison.

189. What can be said with certainty is there was a fatal electrical current passing through the scaffold at shortly after 5:07 pm that evening at a time consistent with the activation of the PE cell. We know there was a fatal electrical current because that is where Matthew died.

190. This is not a case where there are other hypotheses that are reasonably available on the evidence. There has been only one hypothesis offered. Any other potential hypotheses, such as alternative electrical circuits, have not been identified. On the balance of probabilities I accept the hypothesis that the source of the fatal electrical current came from Light Fitting Z, has been substantiated.

191. As to the events that led to Light Fitting Z being in the condition it was found in on 12 July 2013, these are not altogether clear.

192. I accept that the circuit on which Light Fitting Z and Y were found was not within the original demolition work and therefore the circuit was not required to be isolated by Queensland Electrical in October 2012. I accept there remained some confusion amongst witnesses about what was the correct boundary line of the demolition zone and for that reason it makes perfect sense for an Electrical Isolation Certificate to include a detailed plan of the perimeter of the isolation as suggested by respective counsel for the family and KPM.

193. When a decision was made that the roof trusses would now need to be removed, further consideration should have been given as to whether there were any other electrical circuits that may be impacted. I am not at all convinced or impressed by the semantic distinction given to whether this was “demolition” or “disassembly” work and requiring or not requiring an “Electrical Isolation Certificate” to be obtained. If semantics are that significant then perhaps there needs to be regulatory change as suggested by counsel for the family and KPM. I would have thought it was a matter of common sense, but if change is needed then I will leave that to be considered by the regulatory authorities.

194. The fact is that there was a circuit running through the eaves from a distribution board within the operational part of the facility. It is evident Light Fitting Z was on that circuit and in the course of soffit removal was found by KPM workers. In hindsight, that is where it should have stayed until an electrician had looked at it and considered what needed to be done.

195. I have two versions of events of the interaction between KPM workers and Paynter Dixon site foremen. On one version Paynter Dixon were informed of the presence of the light by Mr Long. Paynter Dixon deny this and say they were

unaware of the presence of a light in the eaves that had been removed. I am unable to resolve that issue.

196. What can be resolved is that at one point, some three weeks before the fatal incident, Light Fitting Z was intact inside an eave/soffit. It was then detached from a larger soffit sheet by Mr Robertson of KPM and left in a piece of snapped off soffit which was left sitting inside the eave cavity. Further work then took place on the roof including removal of the trusses over the next short while.

197. It is unclear as to how Light Fitting Z found itself to be unattached to the soffit sheet, with the external cover missing and internal components broken and resting on the water pipe. Excluding some deliberate action on an individual's part, and there being no evidence of this, the only available inference is that it fell from the eave cavity at some point likely due to construction activity. It is unknown for how long it had been there in that condition.

The adequacy and timeliness of investigations conducted by police, work health and safety and electrical safety authorities in relation to the death.

Queensland Police Service

198. Counsel Assisting submits, and I agree, that the investigation conducted by Detective Sergeant Lafferty was appropriate in providing an early report and clearly this was a matter where it was appropriate for WHSQ and the ESO to take the lead.

Electrical Safety Office

199. Although there was some potential criticism by Mr Kerrison of some additional testing that could have been completed by the ESO and some aspects concerning the level of detail within the report, ultimately that criticism was somewhat ameliorated by what Mr Kerrison said during his evidence at the inquest. Mr Kerrison essentially agreed with the findings of the ESO and to that extent it cannot be said that any potential shortcomings of the investigation impacted on the quality or reliability of their findings.

200. The Office of Industrial Relations agrees Light Fitting Z should have been seized on 12 July 2013 by ESO inspectors or WHSQ, particularly as they took possession of Light Fitting Y. It is unclear to what extent, if any, there was a loss of forensic evidence, which impeded their investigation. None has been identified. It may have impacted on the reliability/admissibility of evidence available in other proceedings, if they had taken place, but this is not an issue that should be determined by me.

201. It may be that ESO inspectors need some further assistance in understanding the importance the investigative process, and I adopt the comments of Coroner Priestly recently when considering another investigation that ESO inspectors *"impressed as experienced, conscientious and hardworking, but their investigative knowledge and skills may need better organisational support and backup".*[10]

[10] *Inquest into the death of Dale Kennedy*, page 16, delivered Cairns, 28 February 2018

Workplace Health and Safety

202. The concerns relating to the delay and quality of the WHSQ investigation were referred to the Ethical Standards Unit of the Department of Justice and Attorney General. The Office of Industrial Relations then commissioned an independent external review by Ashdale Workplace Solutions. The findings of that review have been set out earlier in this decision and do not need to be repeated. Suffice to say the delay and aspects of the quality of the initial investigation were as a result of personal difficulties being experienced by the WHSQ inspector and a degree of unsatisfactory performance.

203. WHSQ acknowledged the submission by Counsel Assisting that WHSQ has an important role for enforcing compliance with statutory work health and safety obligations by investigating accidents in the workplace and enforcing compliance with legislative requirements.

204. The Office of Industrial Relations did not seek to excuse the delay and the impact on gathering evidence. In its submissions it said that although the subsequent WHSQ inspector who compiled the report to the coroner drew conclusions about the reliability and evidentiary value of evidence and information obtained, particularly in relation to any potential prosecution, the evidence given in the inquest may have ameliorated some of those concerns.

205. The issue of the quality and timeliness of WHSQ investigations has been the subject of independent review. In September 2015 the Queensland Ombudsman handed down its report of its investigation of a sample of workplace death investigations.[11] In July 2017 Independent Reviewer Mr Tim Lyons handed down his report[12] reviewing WHSQ. This Review was conducted in response to tragic fatalities at Dreamworld and an Eagle Farm worksite.

206. The foreword to the Ombudsman report noted it was in the public interest that workplace deaths are investigated in a timely, comprehensive and transparent manner and that compliance with work health and safety laws is enforced appropriately. It was also important for the public to have confidence that the learnings and outcomes from each workplace death investigation help prevent the occurrence of similar deaths as well as assist with the elimination or minimisation of risks at Queensland workplaces.

207. The Ombudsman's report determined there are a number of areas of the investigation process that need improvement, particularly investigation planning, ensuring an investigation identifies all potential breaches and all potentially relevant issues impacting on a death, and the format and method in which the investigation findings are addressed in an investigation report. The Ombudsman noted WHSQ had commenced extensive work to attempt to improve its processes and the quality of its investigations and that a quality assurance system of external review and evaluation of its investigations had commenced.

208. Mr Lyons' Review noted that while considerable improvements have been made, particularly following criticisms from the Queensland Ombudsman, there is an ongoing need to improve the human capital, systems and processes of WHSQ, particularly in relation to the inspectorate, investigations and prosecutions. The Review considered that in moving to increase its use of engagement, educative and capacity building strategies, WHSQ "overshot" and has placed insufficient

[11] *The workplace death investigations report" September 2015*
[12] *Best Practice Review of WHSQ final report,* 3 July 2017

emphasis on “hard” compliance and enforcement and required a rebalancing to ensure the balance between “directing compliance” and “encouraging and assisting compliance” is appropriate.

209. The inquest was provided with a statement from the State Investigations Manager, Mr David McKenzie, who set out information concerning substantial changes to both the investigation process and compliance measures. These were also detailed in the written submissions of counsel for the Office of Industrial Relations.

210. The inquest did not seek to critique or assess the value of such improvements. They are clearly extensive and on the face of it should place WHSQ in a much better position to comply with its important role if the recommendations are implemented and appropriate resourcing is provided.

Whether there are any matters about which preventative recommendations might be made pursuant to section 46 of the Coroners Act 2003.

Residual Current Device

211. The evidence of the electrical experts is that if a Residual Current Device (‘RCD’,more commonly known as a ‘safety switch’) had been installed on the circuit involving Light Fitting Z, it would have picked up the transposition issue on Light Fitting Y as well as any leakage involving Light Fitting Z, such that the RCD would have operated to switch off the circuit at least at the moment when Matthew completed the circuit, if not at some time before, and Matthew would have been saved. An RCD detects leakage of current to earth including through a person’s body and cuts the current supply in milliseconds and significantly reduces the risk of death or serious injury.

212. The position with respect to RCDs is different around the States in Australia. Queensland requires RCDs to be installed in rental properties and when residential properties are sold and are mandatory on new industrial and commercial properties.

213. This case raised the prospect of retrofitting RCDs in all domestic, industrial and commercial premises where they are not already fitted. Such a proposal had the support of the parties represented at the inquest including most importantly Matthew’s family. The issue has been raised in other States and it has been claimed the costs on industry and households would be prohibitive.

214. The issue has been raised in the coronial jurisdiction in Queensland. On 4 July 2013 the then State Coroner made a recommendation that the State Government assess the competing policy considerations for the requirement of mandatory fitting of RCDs and balancing the costs involved against the resulting improvements to electrical safety.[13] The resulting response from the State Government was to the effect that a cost and benefit analysis indicated that increases in electrical safety achieved by further regulatory requirements for safety switches in homes did not justify the additional cost this would impose on home owners, and on this basis the government opted for a public awareness campaign rather than further regulatory intervention.

[13] *Inquests into the deaths of Matthew James Fuller, Reuben Kelly Barnes and Michael Scott Sweeney, delivered 4 July 2013*

215. On 28 February 2018, Coroner Priestly delivered his findings in relation to the death of Dale Kennedy, an apprentice electrician installing data cables in a ceiling space at a school. The evidence supported a finding that the installation of a standard 30 mA RCD would have saved Mr Kennedy.[14] Coroner Priestly recommended the ESO reconsider the various options for the extension of the requirement for the mandatory fitting of residual current devices (including cost benefit analysis), and a draft discussion paper be circulated to key stakeholders and the public for consultation prior to finalisation of its policy position or advice to State Government.

216. Counsel Assisting noted that the introduction of a mandatory extension and requirement to retrofit RCDs would represent a significant change to industry practice and would require careful consideration and consultation. She recommended a referral of this case to the agency responsible for administering electrical safety laws in Queensland, for further consideration. Counsel for the Office of Industrial Relations stated that as OIR incorporates the ESO, it is the appropriate agency to consider this recommendation. For the sake of consistency I will accordingly join with Coroner Priestly in making a recommendation in identical terms.

Proposed amendments to Codes of Practice

217. Counsel for Matthew's family submitted there should be consideration of changes to the *Demolition Work: Code of Practice 2013* and/or the *Managing electrical risks in the workplace Code of Practice 2013.* KPM suggested there should be some changes to Electrical Safety requirements particularly regarding work being conducted in roof cavities including areas above the eaves and surrounding.

218. The submissions of Matthew's family suggested the Codes of Practice should mandate that an electrical isolation certificate be obtained by the principal contractor for any demolition or dismantling working in any building structure. Further that any electrical isolation certificate should include a clear plan and description of the precise area that has been isolated, including any cabling and fittings which have been removed, and if there is any remaining cabling and fittings of the relevant area, details of the method of isolation, including use of lockout and tag-out means and testing to prove de-energised protocols. It was submitted that a further electrical isolation certificate be mandatory where there is any extension of the scope of demolition and dismantling work.

219. In respect to those general submissions they appear uncontroversial given the circumstances of this case involving confusion as to whether the removal of trusses was demolition or dismantle/disassembly and the confusion as to what precise boundaries of the construction site had been isolated for demolition.

220. The family also proposed a number of other suggestions, which appeared to be related to prescribing work practices on site and interactions between contractors and sub-contractors. Whether prescriptive work practices are suitable for inclusion in Codes of Practice, where the overarching principles require a risk assessment and implementing control measures in varied situations and where there may be a number of suitable control measures is not so clear.

[14] *Inquest into the death of Dale Kennedy* delivered 28 February 2018

Findings required by s. 45

Identity of the deceased – Matthew Trent Ross

How he died – Matthew sustained a fatal electrical shock at approximately 1707 hours, as dusk approached, on 11 July 2013, whilst working to install guttering and fascia at a construction site. At the time of sustaining the fatal electrical shock, Matthew's hands were in contact with a vertical scaffold pole and one or both of his legs were in contact with a horizontal section of newly installed guttering. Whilst in this position he experienced a flow of electrical current through his body sufficient to cause his death. The day after the electrical incident, a damaged light fitting (Light Fitting Z) was found resting on a metal water pipe that in turn was in contact with the scaffolding connected to the vertical scaffold pole Matthew had been holding. Light Fitting Z was connected to a photo electric cell which was timed to activate at around dusk. On the balance of probabilities I find Light Fitting Z was the source of the electrical current.

Place of death – Princess Alexandra Hospital, Woolloongabba

Date of death– 11 July 2013

Cause of death – 1(a) Electrocution

Comments and recommendations

1. It is recommended the Electrical Safety Office reconsider the various options for the extension of the requirement for the mandatory fitting of residual current devices (including cost benefit analysis), and a draft discussion paper be circulated to key stakeholders and the public for consultation prior to finalisation of its policy position or advice to State Government.

2. The Office of Industrial Relations in conjunction with the Electrical Safety Office review the circumstances of this case and consider if there should be amendments to the *Demolition Work: Code of Practice 2013* and/or the *Managing electrical risks in the workplace Code of Practice 2013* that mandate:

    - An electrical isolation certificate be obtained by the principal contractor for any demolition or dismantling working in any building structure.
    - Further that any electrical isolation certificate should include a clear plan and description of the precise area that has been isolated, including any cabling and fittings which have been removed, and if there is any remaining cabling and fittings of the relevant area, details

of the method of isolation, including use of lockout and tag-out means and testing to prove de-energised protocols.

- That a further electrical isolation certificate be mandatory where there is any extension of the scope of demolition and dismantling work.

I close the inquest.

John Lock
Deputy State Coroner
Brisbane
April 2018