Ontario

Ministry of Labour
Operations Division
Central Region

DOWNSVIEW PARK
STAGE COLLAPSE
INCIDENT REPORT

NAME OF CONSTRUCTOR: Live Nation

DATE OF EVENT: Saturday June 16, 2012

LOCATION OF EVENT: Downsview Park, 35 Carl Hall Road, Toronto, ON M3K 2N6

NAME OF DECEASED WORKER: [S.21]

NAME OF INJURED WORKERS: [S.21]
[S.21]

CASE ID #: 03134FLMB280

INVESTIGATING OFFICER:

Jeff Lomer
Occupational Health & Safety Inspector
Construction Health & Safety Program
2275 Midland Avenue, Unit 1
Toronto, ON M1L 1R7
416-314-0669

MANAGER:

Dorothy Holster
Program Manager
Construction Health & Safety Program
5001 Yonge Street, Suite 1600
Toronto, ON M7A 0A3
647-777-5027

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BRIEF SUMMARY:

On Saturday June 16, 2012, the Ministry of Labour arrived at Downsview Park located at 35 Carl Hall Road, in the City of Toronto within the Province of Ontario to investigate a stage collapse that was constructed for a music concert.

The owner, Downsview Park had leased an area of the park to Live Nation to hold a music concert for the band Radiohead. During the stage set-up, the roof system collapsed downwards onto the main stage area. One worker was pronounced deceased on scene, one worker was transported to hospital with critical injuries and two workers were treated on scene and released.

This workplace comes within the scope of the Occupational Health and Safety Act, 1990 as defined under Section 1. The project required notification as per conditions set out in Ontario Regulation 213/91 Section 6, and these requirements were not complied with prior to the incident.

There were multiple eye witnesses, camera and video footage relating to the stage collapse.

INVESTIGATION DATA:

DECEASED WORKER DATA:

Name: [S.21]
Address: [S.21]
D.O.B.: [S.21]

Job Title: [S.21]
Employer: [S.21]

Nature of Injuries: [S.21]

FATALITY DATA:

Date of Death: Saturday June 16, 2012

Location: Downsview Park, 35 Carl Hall Road, Toronto, ON

Death Pronounced by: Dr. Petrosoniak and Dr. Woolsrey of Sunnybrook Hospital at 1631 hours.

Hospital Address: 2075 Bayview Avenue, Toronto, ON M4N 3M5

Telephone Number: 416-480-6100

Inquest to be Held: No

INJURED WORKER DATA:

Name: [S.21]
Address: [S.21]
[S.21]
Telephone: [S.21]
D.O.B.: [S.21]

Job Title: [S.21]
Employer: Radiohead Inc.

Nature of Injuries: [S.21]
[S.21]

Name: [S.21]
Address: [S.21]
Telephone: [S.21]
D.O.B.: [S.21]

Job Title: [S.21]
Employer: Self-employed

Nature of Injuries: [S.21]

Name: [S.21]
Address: [S.21]
Telephone: [S.21] (home), [S.21] (cell),
D.O.B.: [S.21]

Job Title: [S.21]
Employer: [S.21] - self-employed

Nature of Injuries: [S.21]
[S.21]

WORKPLACE PARTIES:

Owner:

Parc Downsview Park Inc.
35 Carl Hall Road, Toronto, ON M3K 2N6
416-952-2222

Constructor:

Live Nation
909 Lake Shore West, Toronto, ON M6K 3L3
416-979-5444

Live Nation Supervisor:

Ken Brault
[S.21]
D.O.B: [S.21]

Show Talent:

Radiohead – Ticker Tape Touring LLP
41 Great Portland Street, London, W1W 7LA
+44 7788580800

Radiohead Supervisor:

Richard John Young
[S.21]
(Home), [S.21] | [S.21] Cell), + [S.21] [S.21] Cell)
D.O.B.: [S.21]
Catapult Productions Ltd. (Self-employed)

Employers:

Optex Staging & Services Inc.
276 Horner Avenue, Toronto, ON M8Z 0A9
416-253-8000

Optex Staging & Services Inc. Supervisors

Lindsay Nadine Shipway – Stage Build Supervisor
[S.21]
D.O.B.: [S.21]

Al "Izzy" Gullion – Roof and Rigging Supervisor
[S.21]
D.O.B.: [S.21]

Gary "Slim" Alvin Hurley – Crew Chief Supervisor
[S.21]
D.O.B.: [S.21]

Nasco Staffing Solutions
2 Berkeley Street, Toronto, ON M5A 4J5
416-653-2560

Nasco Staffing Solutions Supervisor

Gary Rothenberger
[S.21]

Christie Lites
[S.21]

Midnite Hour Productions
15 North Queen, Unit #107, Toronto, ON M8Z 6C1
416-259-3500

Engineering Consultants:

Construction Control Inc.
70 Haist Avenue, Woodbridge, ON L4L 5V4
905-856-1438

Construction Control Inc. Professional Engineer

Domenic Cugliari
[redacted] [S.21] [redacted]

Suppliers:

Scafom Canada Inc.
19 Delta Park Boulevard, Brampton, ON L6T 5E7
905-494-1703

Scaffold Russ Dilworth Ltd.
362 Olivewood Road, Etobicoke, ON M8Z 2Z7
416-231-1610

Etobicoke Ironworks Limited
147 Rivalda Road, Weston, ON M9M 2M7
416-742-7111

Aluma Enterprises Inc.
55 Costa Road, Toronto, ON, L4K 1M8
905-669-5282

OTHER AGENCIES INVOLVED:

Ontario Coroner's Office:

Office of the Chief Coroner
26 Grenville Street, Toronto, ON M7A 2G9
416-314-4000

Coroner: Dr. Joel Ross
Pathologist: Dr. Michael S. Pollanen

Coroner's Investigation Statement Number: 2012-7286
Autopsy Number: A 760/12

Police Force:

Toronto Police Services – 31 Division
40 Norfinch Drive, Toronto, ON M3N 1X1
416-808-3100

Detective Larry Rebellato #793
Detective Michelle Little #89887

Police Report Number: 4393783

Ambulance:

Toronto Emergency Services
4330 Dufferin Street, Toronto, ON M3H5R9
416-392-2000

Incident Number: 12-0140272

Hospital Attended:
Sunnybrook Health Sciences Centre
2075 Bayview Avenue, Toronto, ON M4N 3M5
416-480-6100

Fire:

Toronto Fire Services
4330 Dufferin Street, Toronto, ON M3H 5R9
416-338-9050

Incident Report Number: F12065906

EQUIPMENT DATA:

The concert stage constructed at Downsview Park for the Radiohead live performance was comprised of various scaffolding components known in the industry as "System Scaffold." This type of scaffolding system allows for different sized configurations and set-ups due to wide range of inter-changeable components. The main components within the system are the vertical pieces known as 'standards,' horizontal pieces known as 'ledgers', diagonal pieces known as 'bracing' and the bottom support pieces known as 'base plates' (Binder 15, Appendix 20 - RE: Ministry of Labour Request for Documentation email and Sure Lock attachments). The suppliers of the system scaffolding have also developed customized pieces that can be used within their scaffolding systems to accommodate the various uses required by industry. The system scaffolding components can be observed in use within industrial, institutional, construction, and entertainment sectors.

The majority of the system scaffolding components that were used within the concert stage at Downsview Park is owned by Live Nation who purchased the components in 1996 from Optex Staging & Services Inc. as a complete stage system set-up. The overall stage footprint was approximately 158 feet in width, 76 feet in length and 52 feet in height. The overall footprint included a 64 foot wide by 49 foot long main stage deck area, side and rear towers that were designed to provide the support system for the suspended roof grid system (Binder 6, Appendix 11 - 4-G-00-7285-01 (Molson Park – Barrie, Ontario – Construction Control Inc. – May 2000)).

The suspended roof grid system was part of the complete stage system set-up that was purchased by Live Nation however it was not constructed of the system scaffolding components but a truss system. The suspended roof grid system was constructed of two primary trusses that ran parallel to each other and were connected by 13 secondary trusses (also known as chords). The roof grid system had various tube and clamp diagonal, horizontal and vertical bracing components required to be installed throughout the grid system for structural support. The overall roof grid system was approximately 60 feet in width, by 48 feet in length with a depth of 4 feet (Binder 6, Appendix 11 - 2-92-4773-04 (truss and bracing arrangement and – Construction Control - Nov '93)).

The suspended roof grid system was slightly smaller than the overall stage deck size so it could be raised and lowered within the side towers to various heights with the stages hoisting system. The maximum height from the stage deck to the underside of the roof system was 37 feet. The roof grid system was hoisted by six separate electric winch motors. Three motors were spaced throughout the left side tower of the stage and three motors were spaced throughout the right side tower of the stage (Binder 6, Appendix 11 - 4-G-00-7285-01 (Molson Park – Barrie, Ontario – Construction Control Inc. – May 2000)). Each motor was anchored at the base of the side tower with a wire rope extending to the top of the scaffolding system tower where it would travel through a two pulley system and connect to the roof grid system.

The two pulley system component was called a 'cathead beam.' The cathead beam consisted of two aluminum channels that housed the two pulleys that were spaced out to allow the wire rope

to travel freely during the hoisting of the roof grid system (Binder 6, Appendix 11 -2-92-4773-03 (arrangement and details of head block assembly – Construction Control - Nov '93)).

In order to support the cathead beam at the top of the scaffold side towers, customized components called 'pick up trusses' were manufactured so they could attach to the stage's side tower vertical 'standards' system scaffolding components. The pickup trusses consisted of two horizontal pieces similar to a 'ledger' that were connected by diagonal and vertical members. Each cathead beam would rest and be supported on two separate pickup trusses (Binder 6, Appendix 11 -2-92-4773-03 (arrangement and details of head block assembly – Construction Control - Nov '93)). The cathead beam would then be secured to the pickup truss with a cathead beam hold down clamp to prevent movement.

Once the entire stage scaffolding system was set-up including the rigging of the suspended roof grid system, the six electric winch motors were wired to a control box to operate the hoisting of the roof system. When the roof grid system was hoisted to its required final height the electric winch motor system was by-passed, locked off and ready for use. The roof grid system was designed so the various entertainers using the stage could bring in their own personalized equipment and suspend it from the roof grid system during their performance. The side and rear towers were primarily used for supporting the roof grid system and also allowed for the various entertainers to use the areas to place and stow their additional stage equipment during their performances.

When Live Nation purchased the scaffolding components, the stage system was set up, used and dismantled each year at Molson Park, Barrie from 1996 to 2005. After the closing of Molson Park in 2005 the components were dismantled and put into storage until the summer of 2008. During the summer of 2008 the stage was erected and used at Burl's Creek, Orillia for an event called Jack Johnson. Upon conclusion of the Jack Johnson event the stage was dismantled and returned to storage at Optex Staging & Services Inc. indoor/outdoor facility. Live Nation remained the owner of the stage equipment but used Optex Staging & Services Inc. yard for storage purposes as they could accommodate the numerous stage kit components (Binder 1, Appendix 3 – statement of [S.21]).

WITNESSES:

Live Nation:

Name: Ken Brault
Address: [S.21]
Telephone: [S.21]
D.O.B.: [S.21]

Job Title: Director of Production – Central Canada
Employer: Live Nation

Language Spoken: English
Location of Service: As above

Involvement: Supervisor in charge of site at time of incident. On site at time of incident [S.21] [S.21]

Statement Taken: Yes: [X] No: [] Interpreter Required: Yes: [] No: [X]

Radiohead:

Name: Brian Michael Collins
Address: [S.21]
Telephone: [S.21]
D.O.B.: [S.21]

Job Title: Rigger
Employer: Radiohead Inc.

Language Spoken: English
Location of Service: As above

Involvement: [S.21]

Statement Taken: Yes: [X] No: [] Interpreter Required: Yes: [] No: [X]

Name: Duncan Philip Swift
Address: [S.21]
Telephone: [S.21]
D.O.B.: [S.21]

Job Title: Backline Tech
Employer: Self-employed

Language Spoken: English
Location of Service: As above

Involvement: [S.21]

Statement Taken: Yes: [X] No: [] Interpreter Required: Yes: [] No: [X]

Name: Brian Alexander Wares
Address: [S.21]
Telephone: [S.21] (home), [S.21] (cell),
D.O.B.: [S.21]

Job Title: Stage Manager
Employer: Thurso Enterprises Ltd. - self-employed

Language Spoken: English
Location of Service: As above

Involvement: [S.21]

Statement Taken: Yes: [X] No: [] Interpreter Required: Yes: [] No: [X]

Name: Richard John Young
Address: [S.21]
Telephone: [S.21] (Home), [S.21] Cell), [S.21] Cell)
D.O.B.: [S.21]

Job Title: Production Manager
Employer: Catapult Productions Ltd. – self-employed

Language Spoken: English
Location of Service: As above

Involvement: Supervisor in charge of Radiohead workers. On site at time of incident [S.21] [S.21]

Statement Taken: Yes: [X] – two statements Interpreter Required: Yes: [] No: [X]

Name: Jules Lodewij Grommers
Address: [S.21]
Telephone: [S.21]
D.O.B.: [S.21]

Job Title: Rigger Head
Employer: Self-employed

Language Spoken: English
Location of Service: As above

Involvement: Head rigger and communicator regarding Radiohead plot plan. [S.21] [S.21]

Statement Taken: Yes: [X] No: [] Interpreter Required: Yes: [] No: [X]

Optex Staging & Services Inc.:

Name: Lindsay Nadine Shipway
Address: [S.21]
Telephone: [S.21]
D.O.B.: [S.21]

Job Title: Supervisor
Employer: Optex Staging & Services Inc.

Language Spoken: English
Location of Service: As above

Involvement: Drafted initial stage structure layout and communicated with engineers for final drawings. Supervisor of the various workers required for the stage build. On site at time of incident [S.21]

Statement Taken: Yes: [X] – two statements Interpreter Required: Yes: [] No: [X]

Name: Al "Izzy" Gullion
Address: [S.21]
Telephone: [S.21]
D.O.B.: [S.21]

Job Title: Roof and Rigging Supervisor
Employer: Optex Staging & Services Inc.

Language Spoken: English
Location of Service: As above

Involvement: Roof and Rigging Supervisor and communicator regarding Radiohead plot plan. On site at time of incident [S.21]

Statement Taken: Yes: [X] – two statements Interpreter Required: Yes: [] No: [X]

Name: Gary "Slim" Alvin Hurley
Address: [S.21]
Telephone: [S.21]
D.O.B.: [S.21]

Job Title: Ground Crew Supervisor
Employer: Optex Staging & Services Inc.

Language Spoken: English
Location of Service: As above

Involvement: Ground Crew Supervisor to oversee and direct the delivery of the components for the stage and to assist with the stage build and roof build and rigging.

Statement Taken: Yes: [X] No: [] Interpreter Required: Yes: [] No: [X]

Nasco Staffing Solutions:

Name: Gary Rothenberger
Address: [S.21]
Telephone: [S.21]
D.O.B.: [S.21]

Job Title: Supervisor
Employer: Nasco Staffing Solutions

Language Spoken: English
Location of Service: As above

Involvement: Directed the Nasco Staffing workers to which employer and the supervisors to work for each day on the project.

Statement Taken: Yes: [X] No: [] Interpreter Required: Yes: [] No: [X]

Name: Shannon Henry Cogan
Address: [S.21]
Telephone: [S.21]
D.O.B.: [S.21]

Job Title: Head Climber
Employer: Nasco Staffing Solutions

Language Spoken: English
Location of Service: As above

Involvement: Directed workers on scaffolding set-up and within Stage Left tower [S.21]

Statement Taken: Yes: [X] No: [] Interpreter Required: Yes: [] No: [X]

Name: Justin Michael Lawrence Tisdelle
Address: [S.21]
Telephone: [S.21]
D.O.B.: [S.21]

Job Title: Steel Climber
Employer: Nasco Staffing Solutions

Language Spoken: English
Location of Service: As above

Involvement: [S.21]

Statement Taken: Yes: [X] No: [] Interpreter Required: Yes: [] No: [X]

Name: Cody A Hone
Address: [S.21]
Telephone: [S.21]
D.O.B.: [S.21]

Job Title: Steel Climber
Employer: Nasco Staffing Solutions

Language Spoken: English
Location of Service: As above

Involvement: [S.21]
[S.21]

Statement Taken: Yes: [X] No: [] Interpreter Required: Yes: [] No: [X]

Construction Control Inc.:

Name: Domenic Cugliari
Address: [S.21]
Telephone: [S.21]
D.O.B.: [S.21]

Job Title: Professional Civil Engineer
Employer: Construction Control Inc.

Language Spoken: English
Location of Service: As above

Involvement: The Province of Ontario Professional Engineer who signed and sealed the stage drawings and provided the final stage inspection report. [S.21]
[S.21]

Statement Taken: Yes: [X] No: [] Interpreter Required: Yes: [] No: [X]

Name: Altaf Gafoor
Address: [S.21]
Telephone: [S.21] home, [S.21] cell
D.O.B.: [S.21]

Job Title: Professional Civil Engineer
Employer: Construction Control Inc.

Language Spoken: English
Location of Service: As above

Involvement: Assisted with the calculations required for the additional bracing of the secondary trusses on the roof grid system. [S.21] [S.21]

Statement Taken: Yes: [X] No: [] Interpreter Required: Yes: [] No: [X]

Others:

Name: Jovan-Junior "Johnny" Shalvarov
Address: [S.21]
Telephone: [S.21]
D.O.B.: [S.21]

Job Title: Security
Employer: Live Nation

Language Spoken: English
Location of Service: As above

Involvement: [S.21]

Statement Taken: Yes: [X] No: [] Interpreter Required: Yes: [] No: [X]

INVESTIGATION DETAILS:

A. DESCRIPTION OF EVENT:

Live Nation Ontario Concerts GP, Inc. entered into an agreement with Ticker Tape Touring US, LLP, that the music group Radiohead would perform a live outdoor show on Saturday June 16, 2012 at Downsview Park, in the City of Toronto, within the Province of Ontario (Binder 6, Appendix 11 – Live Nation and Ticket Tape Touring (Radiohead) contract).

Downsview Park is a 231.5 hectares (572 acres) multi-use urban park that is open all year round located at 35 Carl Hall Road, in the City of Toronto. An agreement was signed between Live Nation Ontario Concerts GP Inc. and Parc Downsview Park Inc. that an outdoor live performance headlined by Radiohead would be held in the area within the park known as the North Terrace Events Centre (Binder 5, Appendix 10 – Event Licence Agreement). This area within the park is approximately 5.5 hectare (13.6 acres) in size. The North Terrance Event Centre is an outdoor location and required a temporary stage be erected on site to host the live performance.

Live Nation currently owns a temporary outdoor concert stage system comprised of various scaffolding components known in the industry as "System Scaffold" (Binder 1, Appendix 3 – statement of [S.21]). This type of scaffolding system allows for different sizes of stage configurations and set-ups due to wide range of inter-changeable scaffolding components.

Live Nation Canada Inc. entered into a temporary staging agreement with Optex Staging & Services Inc. that included design, delivery, installation, dismantling of the system scaffold stage components and ensuring that Radiohead's plot plan would fit Live Nation's stage system set-up (Binder 6, Appendix 11 – Live Nation and Optex Staging & Services Inc. Temporary Stage Agreement). The Radiohead plot plan specifically outlined where the band required its various pieces of equipment to be attached to the stages roof grid system in order to deliver its live performance. The agreement also included that Live Nation would provide the ground protection, fork lifts, electrical connections and the personnel required to construct the stage. Live Nation and Optex Staging & Services Inc. have worked on previous projects together where temporary staging was required to be constructed for other performances and events.

Optex Staging & Services Inc. reviewed the stage design and Radiohead's plot plan and determined there were two primary issues raised by Optex Staging & Services Inc. The first issue raised was Radiohead required a minimum height from stage deck to the underside of the roof grid system to be at least 45 feet and the stage kit owned by Live Nation could only accommodate a height of 37 feet (Binder 6, Appendix 11 – Live Nation and Ticket Tape Touring (Radiohead) contract). The second issue raised was the Live Nation roof grid system required engineering as the original loading design criteria did not meet the loading arrangements required by the Radiohead plot plan.

The Radiohead plot plan is a specific layout of the band's equipment designed for the band to deliver its optimal live performance for the viewing audience. Radiohead provides their straight plot plan to each promoter to ensure that venue selected to host the live performance can accommodate the size and weights of the suspended equipment. The approximate weight of the Radiohead plot plan was approximately 66,226 pounds (Binder 7, Appendix 12 – RH12 Rigging A v5.1pdf).

The Radiohead plot plan consists of seven suspended trusses (Binder 4, Appendix 6 – Suspended Trusses – Member Nomenclature Thornton Tomasetti):

1. Video screen truss – Blue
2. Lighting truss – Red
3. Downstage automation video monitor truss – Purple
4. Upstage automation video monitor truss – Green
5. Bottle wall truss – Orange
6. Versatube – Yellow
7. Soft good/back drape truss – N/A

Optex Staging & Services Inc. contracted Construction Control Inc. to ensure the issues raised during the review process could be addressed and that the Live Nation stage and roof system could be used for the Radiohead live performance. The primary contact person during the design drawing process from Construction Control Inc. was their Professional Engineer, Domenic Cugliari (Binder 1, Appendix 3 – statement of [S.21]. Optex Staging and Services Inc. and Construction Control Inc. have worked and designed on previous temporary stages to be constructed for other performances and events.

Optex Staging & Services Inc. [S.21] addressed the first issue that Live Nations stage kit height needed to be increased from 37 feet to 45 feet from stage deck to underside of the roof grid system. [S.21] used previous concert stage drawings and layouts to generate AutoCAD drawings for the Radiohead concert stage. The drawings were generated by [S.21] to speed up the design process and save Optex Staging & Services Inc. money since each system scaffold stage set up is similar and the system scaffolding components allow for different sized configurations (Binder 1, Appendix 3 – statement of [S.21]). The initial AutoCAD stage drawings were sent via email on May 13, 2012, to Construction Control Inc. outlining what was required to be done with the drawings (Binder 9, Appendix 14 – Downsview/radio head email – May 13, 2012 – 11:11am). There were various emails and meetings that took place between Optex Staging & Services Inc. and Construction Control Inc. until a final stage size and layout was determined. The original Live Nation stage kit components would still be used however additional system scaffolding components would be required. [S.21] determined that in order to achieve the final stage height of 45 feet additional system scaffolding components were to be supplied by Optex Staging & Services Inc. and rented from Scaffold Russ Dilworth Ltd. and Scafom Canada Inc. [S.21] generated a packing list for the components required for the stage build that were owned by Live Nation, Optex Staging and Services and the extra stage materials required to be rented so the items could be delivered to Downsview Park in time for the stage construction (Binder 6, Appendix 11 – Downsview Park Scaffolding Components Inventory List).

To address the second issue raised by Optex Staging & Services Inc. regarding the weight of Radiohead's plot plan to be suspended from Live Nations roof grid system, an additional computer analysis was conducted by Construction Control Inc. Professional Engineers (Binder 9, Appendix 14 – Re: FOLLOW UP email – June 7, 2012 – 11:21am). The computer analysis and engineering review by Construction Control Inc., Professional Engineers determined that the original Live Nation roof grid system could still be used; however changes were required to be made to the original Radiohead plot plan.

The changes were discussed relating to Radiohead's straight plot plan for their performance at Downsview Park. Emails were exchanged between Live Nation's Director of Production, Central Canada Kenny Brault, Radiohead's Production Manager Richard Young, Radiohead's Head Rigger Jules Grommer, Optex Staging & Services President Dale Martin, Optex Staging & Services Inc. Supervisors Lindsay Shipway, Al Gullion and Construction Control Inc., Professional Engineer Domenic Cugliari relating to the issues raised and to ensure the optimal layout for the Radiohead plot plan, based on the size of Live Nations fixed roof grid size as Radiohead's straight plot plan would not work (Binder 6, Appendix 11 – email communications regarding scaffolding). There were five changes agreed upon by all the workplace parties involved.

The first change was to Live Nation's roof grid system. Additional bracing would be required throughout the roof grid system to support the weight of Radiohead's plot plan suspended equipment (Binder 10, Appendix 14 -hand calculations and four sketches by Altaf Gafoor P. Eng. in order to identify which members of the secondary truss required additional reinforcement (paragraph 9)).

The second change was to the Radiohead straight truss layout which was changed to a curved configuration (Binder 6, Appendix 11 – email communications regarding scaffolding – Subject: Re: FW: Toronto layer stage June 16/12 Radiohead – April 21, 2012 – 6:38pm).

The third change was to the original locations of the Radiohead basic curved plot plan trusses. All of the trusses locations had been moved between 50 centimetres and 2 metres from the original curved configuration design locations to accommodate the fixed size of roof grid system being erected at Downsview Park (Binder 1, Appendix 3 – statement of [S.21]).

The fourth change was the elimination of the soft good/back drape truss due to the width of the stage that also reduced the weight on the roof grid system by approximately 2,469 pounds (Binder 6, Appendix 11 – email communications regarding scaffolding – Subject: Re: preliminary load analysis – June 6, 2012 - 9:34pm).

The fifth change was made to Versatube - Yellow truss. Due to the weight of the Radiohead plot plan a row of versatube lighting was removed from the bottom layer as it did not affect the live performance and it also reduced the weight on the roof grid system by approximately 847 pounds (Binder 1, Appendix 3 – statement of [S.21]).

A final set of seven professional engineered drawings were produced by Construction Control Inc. and sent on June 8, 2012, to Optex Staging & Services Inc. for the stage to be constructed at Downsview Park for the Radiohead live performance (Binder 10, Appendix 14 – Radio Head Concert stage email – June 8, 2012 – 10:54am). The seven drawings were:

4-G-S12-4139-01 (Radio Head Concert Stage Scaffold Layout and Elevations – Construction Control Inc. - Dated June 7, 2012)
4-G-S12-4139-02 (Radio Head Concert Stage Scaffold Typical Sections – Construction Control Inc. - Dated June 7, 2012)
4-G-94-5654-01 (Arrangement and Details of Primary Truss and Pick-up Truss Fabrication – Stanford Engineering Limited - July 21, 1992)
4-G-94-5654-02 (Arrangement and Details of Additional Sections of Primary Truss – Construction Control – April 28, 1994)
4-G-94-5654-03 (Truss Fabrication Details Elevations and Notes – Construction Control Inc. – June 8, 2012)
4-G-94-5654-04 (Secondary Truss Loading Diagram for 60'-0" Truss – Construction Control Inc. – June 8, 2012)
4-G-01-7570-01 (Concert Stage Details – Construction Control Inc. - June 8, 2012)

On Monday June 11, 2012, Live Nation's Ken Brault was on site to supervise and direct the workplace parties that began arriving at the Downsview Park - North Terrance Event Centre that were contracted to set-up the area, construct the stage and related structures required for the Radiohead live performance (Binder 1, Appendix 3 – statement of [S.21]).

One of the workplace parties that arrived on the project was Nasco Staffing Solutions whom was contracted by Live Nation Canada Inc. to provide the labour personnel required for set-up of the area and construction of the stage (Binder 6, Appendix 11 – Live Nation and Nasco Staffing Solutions Agreement). Due to site conditions, timing requirements and various phases of the project, the Nasco Staffing Solutions workers would be on stand-by and called into work when required by Live Nation.

Optex Staging & Services Inc. supervisors were also on site to measure and determine the actual stage location and start directing the construction of the stage. Lindsay Shipway was the supervisor for the stage construction that included the main stage deck area, stage left and right towers (Binder 1, Appendix 3 – statement of [S.21]). Al Gullion (aka Izzy) was supervising the roof construction and rigging of the roof structure (Binder 1, Appendix 3 – statement of [S.21]). Gary Hurley (aka Slim) was the ground crew chief supervisor to oversee and direct the delivery of the components for the stage and to assist Ms. Shipway with the stage construction and Mr. Gullion with the roof construction and rigging (Binder 1, Appendix 3 – statement of [S.21]).

Optex Staging & Services Inc. would determine the amount of workers required to construct the stage each day and would communicate the numbers to Live Nation. Live Nation would contact Nasco Staffing Solutions to ensure that the correct number of workers arrived to the project each day as required. Nasco Staffing Solutions workers would report to Optex Staging & Services Inc. Supervisor Lindsay Shipway at the project location and be assigned to work for one of the

three Optex Staging & Services Inc. supervisors on the project (Binder 1, Appendix 3 – statement of [S.21]).

On the Tuesday June 12, 2012, the main stage deck areas were completed and [S.21] moved onto the stage area to begin the construction of the roof grid structure shell, while the erection of the other structures, stage left and right towers continued. This process continued over the next two days (Binder 1, Appendix 3 – statement of [S.21] [S.21].

On Thursday June 14, 2012, Construction Control Inc. [S.21] attended Downsview Park to meet on site with [S.21] to observe the roof structure construction and [S.21] computer program. The computer program showed the loading that would be applied on the secondary trusses of the roof grid system. [S.21] was informed by [S.21] that he misinterpreted the position of the bracing within the roof grid structure and that it needed to be removed and installed correctly as per the drawings 4-G-94-5654-04 - Secondary Truss Loading Diagram for 60'-0" Truss – Construction Control Inc. – June 8, 2012 (Binder 1, Appendix 3 – statements of [S.21] and [S.21]). Later in the afternoon, an email with revised loading requirements for the roof structure were sent from [S.21] to [S.21] as they had previously discussed (Binder 9, Appendix 14 – radiohead grid dwg email – June 14, 2012 – 3:14pm).

On morning of Friday June 15, 2012, at the offices of Construction Control Inc., [S.21] [S.21] performed various calculations relating to the revised loading requirements on the roof grid structure (Binders 11-12, Appendix 14). On site at Downsview Park, the stage left and right towers including the roof bracing and hoist rigging were completed. [S.21] had the roof tarp installed and raised the roof grid system to a working height of approximately 5 feet off the main stage area to underside of the roof grid system (Binder 1, Appendix 3 – statement of [S.21] [S.21].

In the afternoon on Friday June 15, 2012, Construction Control Inc., [S.21] [S.21] attended Downsview Park to meet with and provide [S.21] a modified drawing for additional bracing of the secondary truss chord #13 (Binder 12, Appendix 14 – Construction Control Inc. Bracing of Secondary Trusses Drawing #2-G-S12-4139-SK1). [S.21] and his workers began to install the additional bracing as required via the drawing to Chord #13. Construction Control Inc. [S.21] walked the stage structure as it was nearly complete, so he could conduct a final field review of the concert stage (Binder 1, Appendix 3 – statement [S.21]).

Upon completion of the additional bracing, [S.21] began his layout and rigging for the hoist motors locations required to be installed within the roof grid system for the Radiohead plot plan. These hoist motors were required to be installed at very specific locations and in accordance to the Radiohead plot plan so that the bands rigging crew could hang the live performance equipment from the roof structure upon their arrival the following morning (Binder 6, Appendix 11 - Grid Load Drawing 13/7/12 4:23 (a-f)). The installation of the required hoist motors to the secondary roof trusses within the roof grid structure was being done at Radiohead's request to Live Nation as the band was playing a show in Montreal the night before. The Radiohead rigging crews would not have enough time to do the install themselves upon their

arrival at Downsview Park on the day of the show (Binder 6, Appendix 11 – email communications regarding scaffolding – Subject: Re: FW: Toronto layer stage June 16/12 Radiohead – April 21, 2012 – 6:38pm).

The rigging of the hoist motors to the roof grid structure continued into the evening hours on Friday June 15, 2012. During this time, the employer called Christie Lites whom was contracted by Live Nation to connect the electrical distribution system required to operate the hoist motors and other electrical components within the stage for the live performance arrived to begin their contract work (Binder 15, Appendix 16 – Rental Contract #699466 and 699187). The hoist motors and electrical distribution system were tested, adjusted and re-tested and deemed complete and the roof structure was ready to be raised from the 5 foot working level to its final show position height (Binder 1, Appendix 3 – statement of [S.21] [S.21]

The roof grid structure was lifted to its final show position height around 3:30 am Saturday June 16, 2012. The approximate height from main stage deck level to the underside of the stage was 50 feet at the downstage position (audience side) and 45 feet at the upstage position (rear of stage side). The elevated roof level difference was designed to have a slope so that any rain that may occur on show day would drain away along the roof tarp to the rear of the stage and not affect the live performance. Upon raising the roof to its final position, the hoist motor system was by-passed and locked off (Binder 1, Appendix 3 – statement of [S.21] [S.21] .

On Saturday June 16, 2012 at 7:32 am, Construction Control Inc. [S.21] [S.21] sent his final inspection report via email to Optex Staging & Services Inc. [S.21] (Binder 12, Appendix 14 – Downsview Park Stage email – June 16, 2012 – 7:32am).

The various other workplace parties started to arrive to complete their final tasks required for the Radiohead live performance scheduled for later in the day. The Radiohead workers, under the direction of their Production Manager Richard Young, arrived on site and at approximately 8:00am began to unload and attach their equipment to the stage and roof grid system. Optex Staging & Services Inc. and Nasco Staffing Solutions were attaching their final bracing and safety equipment. Construction Control Inc. [S.21] attended the project as scheduled to observe the reinforcing of the Chord #13 as per Construction Control Inc. Bracing of Secondary Trusses Drawing #2-G-S12-4139-SK1 (Binder 1, Appendix 3 – statements of [S.21] and [S.21]).

During the rigging and hoisting of the Radiohead plot plan trusses to the roof grid system, Radiohead's Lighting [S.21] called his [S.21] to inform him that the Truss #1 Video Screen - Blue had deflected approximately 6 inches when they were raising Truss #3 – Downstage Automation Video Monitor – Green (Binder 1, Appendix 3 – statement of [S.21]). [S.21] contacted Optex Staging & Services Inc. [S.21] to inform him of the deflection. [S.21] asked that [S.21] meet with him in the field area to observe and discuss the deflection. [S.21] was already meeting with [S.21] to observe a 2 inch deflection of Chord #13 within the roof grid system. [S.21] met in the audience field to discuss and observe the deflections. Construction Control Inc. [S.21] was

contacted via telephone regarding the deflections and determined that the deflection was caused by the "slackness of the joints in the truss." [S.21] informed them to continue to load the roof grid system and to watch for any additional deflections and if the deflection increases more than one inch to call him back (Binder 1, Appendix 3 – statement of [S.21]. The trusses were fully loaded and no further observations of deflections took place by 12:45pm and [S.21] departed the project location.

Upon the final loading of Radiohead plot plan trusses and equipment, [S.21] wanted to check the suspended load weight on the roof grid system. [S.21] assigned Nasco Staffing Solutions, [S.21] to observe the readings on the six Dillon Dynamometers (Binder 16, Appendix 21). [S.21] recalls the dynamometer readings for four units were 12,000 pounds and two units were 13,000 pounds (Binder 1, Appendix 3 – statement of [S.21] [S.21] [S.21] and [S.21]).

At approximately 3:50pm, the Radiohead workers were on stage finishing their Line Check which was the technical verification of instruments and audio system fine tuning (Binder 3, Appendix 5 – Ministry of Labour photograph #1).

At approximately 3:55pm, Radiohead [S.21] was called on his portable radio that the bottom of Truss #6 Versatube – Yellow which is normally elevated above the stage deck by 10 centimetres was now touching the stage deck. [S.21] met with [S.21] [S.21] and [S.21] behind the stage to observe the roof grid system and did not notice any deflection (Binder 7, Appendix 12 – Rear Stage Photograph). They travelled onto the stage area and upon arrival observed that Truss #6 Versatube – Yellow was now elevated above the stage by 5 centimetres and no longer touching the stage deck. [S.21] [S.21] was informed that a crew member had possibly raised the versatube wall using the hand held electric remote controller prior to their arrival on the stage. [S.21] used the same remote controller to begin to raise the versatube wall to the required height of 10 centimetres from stage level. [S.21] began in the north/east corner on the stage and raised hoist motor #V9 – S/N LC084RD and measured the versatube wall was 10 centimetres from the stage deck level. He immediately walked towards motor #V8 – S/N L3133S2 to repeat the raising and measuring process. As he looked towards the roof area, he heard Radiohead's [S.21] say it is moving again, then a loud noise happened and the Bottle Wall Truss – Orange and Versatube – Yellow truss started to collapse downwards towards the stage (Binder 1, Appendix 3 – statement of [S.21] and [S.21]). [S.21] [S.21] ran off stage left to the stairs and [S.21] ran and jumped off the stage into the audience field.

During this time, Nasco Staffing Solutions [S.21] and [S.21] [S.21] who were in the scaffolding tower at stage left and approximately 30 feet high above the stage, heard the noise and called out to the workers below that the roof system was falling. [S.21] and [S.21] observed the workers on the stage running in various directions off the stage left, stage right and jumping from the stage towards the audience field (Binder 1, Appendix 3 – statement of [S.21] and [S.21]). The roof grid system collapsed downwards and rested in an uneven position between the stage left, stage right, rear wall and main deck level (Binder 3, Appendix 5 – Ministry of Labour photograph #17).

After the collapse, numerous workers ran back towards the main deck stage level in search of others who may have become trapped or injured under the roof grid system, each employer began a callback to locate the whereabouts of their workers and calls were also being placed to 911. Radiohead's [S.21] returned to the stage through stage left and observed their [S.21] and [S.21] [S.21], lying on the stage deck underneath the collapsed roof grid structure. [S.21] [S.21] was able to communicate with [S.21] and [S.21] and continued to call out for other workers that may have been trapped under the roof grid system (Binder 1, Appendix 3 – statement of [S.21]).

Radiohead did not receive a callback from their [S.21] Radiohead [S.21] and a few other workers re-entered the collapsed stage area and located [S.21] beneath video monitor #11, which was attached to truss #4 - upstage automation video monitor truss - green. The workers tried to lift the video monitor off [S.21] [S.21] but were unsuccessful due to the weight of the monitor and truss system.

Toronto Emergency Medical Services arrived and took over the scene (Binder 18, Appendix 31 – Incident Summary Report #12-0140272). Upon arriving at the location of [S.21] paramedics observed [S.21] [S.21] Toronto Fire Services arrived and raised the video screen using air bags and slid [S.21] from underneath the video screen (Binder 18, Appendix 32 – Emergency Incident Report #F12065906). Toronto Medical Services attached a monitor to [S.21] that [S.21] (Binder 17, Appendix 29 – Coroner's Investigation Report). All other personnel were accounted for and due to the unknown stability of the collapsed stage and roof structure the emergency personal services withdrew from the stage area. The area was secured by Toronto Police Services and the Ministry of Labour was notified (Binder 17, Appendix 30 – Occurrence Report #4393783).

Toronto Emergency Services transported Radiohead [S.21] to [S.21] [S.21] [S.21] as a result of jumping off the stage deck level into the audience field (Binder 17, Appendix 30 – Occurrence Report #4393783). Radiohead's [S.21] [S.21] [S.21] [S.21] resulting from being under the roof grid system at time of collapse (Binder 1, Appendix 3 – statement of [S.21]). [S.21] [S.21] Radiohead's [S.21] [S.21] [S.21] [S.21] [S.21] resulting from jumping off the stage into the audience field (Binder 1, Appendix 3 – statement of [S.21]). [S.21] [S.21]

Toronto Police Services and Live Nation security personnel set-up various perimeters around the incident area and at the entrances to Downsview Park to control the traffic and turn away the approximate 35,000 fans that were beginning to arrive for the sold out performance as the doors were scheduled to open at 5:00pm.

At approximately 7:30 pm, Ministry of Labour Inspectors Jeff Lomer and Norm Ratcliffe arrived at the incident location (Binder 2, Appendix 4 – Inspectors Notes). Toronto Police Services Detective Larry Rebellato updated the Ministry of Labour of the incident details and provided information that [S.21] was still under the collapsed roof grid structure and Emergency Personnel were awaiting confirmation the structure was sound to extricate [S.21]

At approximately 8:30pm, Ministry of Labour Inspector Chris Warwick (Binder 2, Appendix 4 – Inspectors Notes) and Professional Engineer Saeed Khorsand (Binder 4, Appendix 8 – Ministry of Labour Professional Engineering Report) arrived at the incident location Professional Engineer Saeed Khorsand audited the collapsed roof grid system and determined the stage structure sound for emergency personnel to temporarily enter and extricate [S.21] [S.21] was extricated and transported from Downsview Park to the Coroner's Office. Ministry of Labour Manager Ian Ward (Binder 2, Appendix 4 – Inspectors Notes) and Professional Engineer Robert Molina (Binder 4, Appendix 8 – Ministry of Labour Professional Engineering Report) also arrived at the incident location.

At approximately 9:30pm, Toronto Police Services released the scene to Ministry of Labour. Toronto Police Services kept various officers at the incident location to keep the scene secured. Ministry of Labour took over the scene and issued a do not disturb requirement to Live Nation for an identified area within the North Terrace Events Centre (Binder 1, Appendix 2 – Field Visit #03134FLMB281). Live Nation complied with the requirement and set up additional security personnel around the identified area. Ministry of Labour Inspectors began to collect statements from witnesses to the collapse of the roof grid structure (Binder 1, Appendix 3 - statements).

The Ministry of Labour attended the incident location at Downsview Park over the next several weeks to continue collecting information and issue various requirements while the stage was being dismantled (Binder 1, Appendix 2 – Field Visit Reports).

Observations were made that the Downsview Park stage did not collapse in entirety. The stage scaffolding systems outer shell appeared to be mainly intact with the exception of damage to the upper sections of stages system scaffolding components that included deformed or broken pieces of standards, rosettes, ledgers, bracing, pick-up trusses and cathead beams. There were loose pieces of system scaffolding components located on or near the stage ground areas. The damage to the roof grid structure appeared to be caused when the roof grid system collapsed and struck the side and rear towers as it landed on the Radiohead plot plan trusses and stage equipment. Damage was also observed to the Radiohead plot plan trusses, stage equipment and main stage decking areas (Binder 3, Appendix 5 – Ministry of Labour photographs #2-60, 63-74).

A requirement was issued to develop safe work procedures to dismantle the stage and secure components being removed for observations. The Ministry of Labour and Live Nation provided continuous communication, access for observations and cooperation with the various engineer and insurance firms that requested to be present on behalf of their clients during all phases of the stage removal. The collapsed stage was completely dismantled and removed from the Downsview Park - North Terrance Events Centre on July 9, 2012. There were stage components stored in a warehouse facility located within Downsview Park at 40 Carl Hall Road and secured

by Live Nation so further observations could be made by the Ministry of Labour, workplace parties, the engineering and insurance firms (Binder 2, Appendix 4 – Inspectors Notes – Book 2012-71, pages 91-96, 107-109,119-122).

The Ministry of Labour carried away various items from the Downsview Park stage collapse area for testing purposes. The items were transported from 40 Carl Hall Road to 799 Islington Avenue in Toronto and secured in a locked container within the Toronto Police Property Unit (Binder 4, Appendix 7 – Ministry of Labour - Items being stored for testing purposes inventory list). The remaining equipment from the Downsview Park stage was released to their respective owners with a requirement issued by the Ministry of Labour. The requirement stated the released equipment shall not be used pending testing and that a report be provided to the Ministry of Labour bearing the seal and signature of a professional engineer stating the equipment is not likely to endanger a worker (Binder 1, Appendix 2 – Ministry of Labour Field Visit).

The Ministry of Labour issued to the various workplace parties a requirement to provide all the stage drawings, manufacturer's specifications, load capacities and installation instructions for the various system scaffolding and rigging components installed within the stage system (Binder 1, Appendix 2 – Ministry of Labour Field Visits). The Ministry of Labour identified six discrepancies when auditing the various documents provided. The discrepancies related to five items installed within the Downsview Park stage were not identical to components outlined to be installed as per the set of seven professional engineered drawings produced by Construction Control Inc. for the stage to be constructed.

The first item identified was the pick-up trusses (Binder 3, Appendix 5 – Ministry of Labour photograph #70). The drawings indicated the pick-up trusses to be installed were to have an overall length of 10 feet with a three inch diameter by 0.21 inch thick top, bottom, vertical and diagonal chords (Binder 5, Appendix 10 - 4-G-01-7570-01 (Concert Stage Details – Pick-up Truss Detail – Construction Control Inc. - June 8, 2012)). The pick-up trusses installed within the Downsview Park stage structure side towers had an overall length of 7 feet with an approximate 1.92 diameter inch top and bottom chord and a 1.7 inch diameter vertical and diagonal chord (Binder 4, Appendix 8 – Ministry of Labour Professional Engineering Report – 6.2 Engineering Drawing Discrepancies). The vertical and diagonal bracing pattern within the pick-up truss installed in the Downsview Park stage was a different pattern than outlined in the professional engineered drawing provided. Optex Staging & Services [S.21] [S.21] stated to the Ministry of Labour [S.21] [S.21] [S.21] (Binder 1, Appendix 3 – statements of [S.21]). Construction Control Inc., [S.21] stated to the Ministry of Labour that [S.21] [S.21] [S.21] [S.21] [S.21] [S.21] (Binder 1, Appendix 3 – statement of [S.21]). No manufacturer's specifications were provided for the pick-up trusses installed within the stage at Downsview Park.

The second item identified was the cat head beams (Binder 3, Appendix 5 – Ministry of Labour photograph #73). The drawings indicated the cat head beams to be installed were to have an overall length of 6 feet 6 inch, width of 5 - 5/16 inches and height of 6 inches (Binder 5, Appendix 10 - 4-G-01-7570-01 (Concert Stage Details – Cathead Detail – Construction Control Inc. - June 8, 2012)). The cat head beams installed within the Downsview Park stage structure had an overall length of 10 feet, width of 8–1/8 inches and height of 8 inches (Binder 4, Appendix 8 – Ministry of Labour Professional Engineering Report – R. Molina Notes). Optex Staging & Services [S.21] [S.21] stated to the Ministry of Labour [S.21] [S.21] [S.21] (Binder 1, Appendix 3 – statements of [S.21] and [S.21] Construction Control Inc., [S.21] stated to the Ministry of Labour that [S.21] [S.21] [S.21] stated [S.21] [S.21] [S.21] (Binder 1, Appendix 3 – statement of [S.21]). No manufacturer specifications were provided for the cat head beams installed within the stage at Downsview Park.

The third item identified was related to the installation of the cat head beam hold downs. The Construction Control Inc. drawing - 4-G-S12-4139-01 Radio Head Concert Stage Scaffold Layout and Elevations indicated that the cathead assembly was to be attached as per Construction Control Inc. 4-G-01-7570-01 - Concert Stage Details – June 8, 2012. The Concert Stage Details drawing was audited and there were no assembly details as indicated. Information was collected that the cat head beams were attached to the pick-up trusses with two cat head beam hold downs that were installed on opposite corners (Binder 1, Appendix 3 – statement of [S.21]). Due to a shortage of one cat head beam hold down, a nylon strap was used as a replacement to attach the cat head beam to the pick-up truss (Binder 3, Appendix 5 – Ministry of Labour photograph #44). There was no information or instructions provided on how to attach the cat head beam to the pick-up truss. There were no manufacturer's specifications or information for the cat head beam hold downs installed within the Downsview Park stage.

The fourth item was the two primary roof trusses installed within the Downsview Park roof grid system had back to back channel top chords and bottom chords, square vertical and horizontal members (Binder 3, Appendix 5 – Ministry of Labour photograph #54). The professional engineered drawings provided for the primary roof trusses outlined the top and bottom chords were to be square and the vertical and horizontal members were to be tubular (Binder 5, Appendix 10 - 4-G-94-5654-01 (Arrangement and Details of Primary Truss and Pick-up Truss Fabrication – Stanford Engineering Limited - July 21, 1992) and 4-G-94-5654-02 (Arrangement and Details of Additional Sections of Primary Truss – Construction Control – April 28, 1994)). The vertical and diagonal bracing pattern within the primary roof grid structure installed was a different pattern than outlined in the professional engineered drawing provided.

The fifth item was the bracing pattern installed on the top and bottom sections of the Downsview Park roof grid system were in a diamond pattern (Binder 3, Appendix 5 – Ministry of Labour photograph #41). The bracing pattern outlined to be installed as per the professional engineered

drawings provided for construction was in an angled pattern (Binder 5, Appendix 10 - 4-G-94-5654-04 (Secondary Truss Loading Diagram for 60'-0" Truss – Construction Control Inc. – June 8, 2012)). Optex Staging & Services [S.21] determined that the change was required and approved by Construction Control Inc., [S.21] (Binder 1, Appendix 3 – statement of [S.21] [S.21].

The sixth item related to the locking pins installed within the stage system between the Aluma vertical scaffolding components called standards (Binder 15, Appendix 20 - Sure Lock Standard and Locking Pins – Structural Properties). Observations were made by Ministry of Labour Professional Engineers Saeed Khorsand and Robert Molina that there were standards in the upper sections of the scaffolding system with locking pins installed and other areas without locking pins installed (Binder 4, Appendix 8 – Ministry of Labour Professional Engineering Report – R. Molina Pictures). There were no manufacturer's specifications or information provided for the locking pins installed within the Downsview Park stage.

The Ministry of Labour was not provided all the documentation required for the system scaffolding and rigging components installed within the Downsview Park stage as required. The Ministry of Labour was provided information that Scafom Canada Inc., Scaffold Russ Dilworth Ltd., Etobicoke Ironworks Limited and Aluma Enterprises Inc. were either the suppliers, manufacturers or original owners of the system scaffolding components installed within the Downsview Park stage that the documentation was not available for. The Ministry of Labour contacted these suppliers, manufacturers and owners to provide their manufacturers specifications and installation procedures for their total system scaffolding and rigging components installed within the Downsview Park stage.

Scafom Canada Inc. (Binder 15, Appendix 18 - Ringscaff - Product manual Canada and Binder 15) and Scaffold Russ Dilworth Ltd. (Appendix 19 - T.O.P.S. Scaffold & Shoring Supply Ltd. Product Engineering Data) provided their manufacturers specifications and installation procedures for their total system scaffolding components that they supplied to be installed within the Downsview Park stage.

The Ministry of Labour contacted and spoke with Etobicoke Ironworks Limited President, John Brasil and discussed the system scaffolding components and the observed markings that were stamped on the 7 foot pick-up trusses installed within the Downsview Park stage. Etobicoke Iron Works President, John Brasil and Plant Manager Neil Joseph met with the Ministry of Labour and made observations of the system scaffolding components pick-up trusses at the Toronto Police Property Unit. Mr. Brasil and Mr. Joseph stated that due to the stamped marking of 'EIW' on the top and bottom chord on the pick-up truss, it was likely a customized component that Etobicoke Iron Works did manufacture in 1990's but could not confirm. Mr. Brasil stated that Etobicoke Iron Works involvement with the pick-up was is that they were either solely the designers, the designer and manufacturer or sold the connection points and another company manufactured the rest of component Mr. Brasil stated they did not supply any of the system scaffolding components required for the stage construction and did not have any documentation available for the pick-up trusses installed within the stage (Binder 15, Appendix 19 - RE: Ministry of Labour Email Addresses - September 20, 2012 email). Etobicoke Ironworks Limited provided their current manufacturers specifications and installation procedures for their total

system scaffolding components and pick-up trusses to the Ministry of Labour (Binder 15, Appendix 19 – EIW - 2GB memory stick).

The Ministry of Labour contacted and spoke with Aluma Systems Inc. Engineering Manager, Ellie Ashton and discussed the system scaffolding components within the Downsview Park stage. Information was provided from Brand Energy & Infrastructure Services Director of Corporate Risk and Litigation, Deborah Pittet that certain assets such as the trade name 'Aluma' were purchased in 2005 from Aluma Enterprises Inc. Mrs. Pittet stated that Aluma Systems Inc. and Brand Energy & Infrastructure Services are not connected with the original company or their manufactured products. They also informed the Ministry of Labour that if there are components with the brand name 'Aluma' present within the stage system that they have no knowledge on how the components have been used, stored and maintained since they were sold for use in the 1990's by the other company (Binder 15, Appendix 20 - Re: Test of Components email and letter (Nov 8, 2012)). Brand Energy & Infrastructure Services had their Manager of Technical Services Stephen Wilson met with the Ministry of Labour and attend the Toronto Police Property Unit. Mr. Wilson identified that certain standards, ledgers and bracing were produced by Aluma and in use within the Downsview Park stage (Binder 15, Appendix 20 - FW: Test of Components email and letters (Jan 7, 2013 Lomer ltr 01 4 12.doc MOL Scaffold Equipment Inspection.pdf). Brand Energy & Infrastructure Services stated that due to the Aluma Group acquisition and age of the components that the original manufacturer specifications and installation procedures are not available for the system scaffolding components that were installed within the Downsview Park stage. Brand Energy & Infrastructure Services provided their current manufacturers specifications and installation procedures for their Sure Lock system scaffolding components to the Ministry of Labour (Binder 15, Appendix 20).

There were six Dillon Dynamometers installed in the rigging system attached to the roof grid structure to measure the load being applied at each connection point (Binder 3, Appendix 5 – Ministry of Labour photograph #54, 75-76). There was no documentation provided for the units as required by the Ministry of Labour. The Ministry of Labour contacted the manufacturer and received various information and documentation from Dillon/Brecknell Scales Product Manager, Wayne Willie relating to the dynamometers installed within the Downsview Park stage (Binder 16, Appendix 21). Mr. Willie provided information that the maximum capacity reading on five of the six dynamometers installed was 10,000 pounds and the remaining dynamometer maximum capacity reading was 15,000 pounds (Binder 16, Appendix 21 – RE: Dillon Dynamometer email page 5). Mr. Willie stated that the dynamometers would not have provided accurate readings if the loading exceeded the maximum capacity on each unit. [S.21] recalled that the dynamometer readings for four units were 12,000 pounds and two units were 13,000 pounds (Binder 1, Appendix 3 – statement of [S.21] [S.21]. The readings on five of the six Dillon Dynamometers would have provided incorrect load capacity readings while installed on the project within the rigging system attached to the roof grid structure.

The Ministry of Labour determined that testing was required on the system scaffolding components installed within the Downsview Park stage due to the missing manufacturer specifications and the observed damage to the stages upper tower sections (Binder 3, Appendix 5 – Ministry of Labour photograph #43-46). The Ministry of Labour met with the various engineer and insurance firms that requested to be present on behalf of their clients and discussed the type

of testing to be conducted (Binder 4, Appendix 8 -Ministry of Labour – Scope of Work Meeting Attendees). This was to ensure that all parties shared their client's requests relating to the testing of the materials as the testing would be destructive and non-destructive. The testing was divided into three phases and was to determine the metallurgical properties and load capacities of the system scaffolding components.

The first phase of testing was conducted from February 11 - 13, 2013 at Acuren-Mississauga Laboratories located 2421 Drew Road, Mississauga in Ontario. The testing was for metallurgical testing to conduct failure analysis. The components used in the testing were from within the Downsview Park stage. The components tested were standards, rosettes, ledger, diagonal brace, pick-up trusses and cathead beams. A report was generated and provided from Dr. Ehran Ulvan containing the testing results (Binder 16, Appendix 22 – Factual Analysis Report – Acuren Project 128-13-0370). A USB memory stick of the raw testing data was provided to Live Nation so it could be distributed to the various engineer and insurance firms that requested to be present on behalf of their clients during this testing phase (Binder 16, Appendix 22 - Acuren USB memory stick (containing Factual Analysis Report – Acuren Project No: 128-13-0370)).

The second phase of testing was conducted on various dates in April 2013 at McMaster University's Applied Dynamics Laboratory located in Hamilton, Ontario. The testing was to determine the load capacity of the scaffolding components by recreating a portion of the top sections of the scaffolding system to replicate how they were installed within the Downsview Park stage. In order to complete this phase of testing, scaffolding components were collected from three sources. The first source was the Ministry of Labour required Optex Staging & Services Inc. to produce four pick-up trusses, three cat head beams and six cat head beam hold downs to the Ministry of Labour for testing purposes (Binder 1, Appendix 2 – Ministry of Labour Offsite Field Visit #03134FSQM007 and 03134FWVL010). The second source was to utilize four pick-up trusses, one cat head beam and three cat head beam hold downs that were from within the Downsview Park stage (Binder 2, Appendix 4 – Inspectors Notes – Book 2013-77, page 110). The third source required the Ministry of Labour to purchase total system scaffolding components from Aluma Systems Inc. (Binder 15, Appendix - Aluma Systems Sale Quotation # (753) DW-02-28-13). A report and external hard drive was provided from Dr. Ken Sivakumaran containing the video footage and raw data (Binder 16, Appendix 23 – McMaster Test Results Report).

The third phase of testing was conducted on April 26, 2013 at McMaster University's Applied Dynamics Laboratory located in Hamilton, Ontario. The testing was to determine the hardness properties of selected scaffolding components used in second phase of testing so they could be compared with the results from the scaffolding components used in the first phase of testing. A laboratory report was emailed to this inspector with the hardness testing results (Binder 16, Appendix 22 – Acuren Laboratory Report 13-1487).

Ministry of Labour Professional Engineers Saeed Khorsand and Robert Molina audited the three phases of test results provided. The first and third phases of testing conducted by Acuren-Mississauga Laboratories were compared. It was confirmed that the pick-up truss tested from within the Downsview Park stage was similar to the pick-up trusses used in the load capacity testing at McMaster University's Applied Dynamics Laboratory (Binder 4, Appendix 8 –

Ministry of Labour Professional Engineering Report – 6.4.1 Metallurgical Hardness Tests at McMaster University).

McMaster University's, Dr. Ken Sivakumaran determined the capacity of the pick-up truss used in the Downsview Park stage, supporting the cathead beam at the mid-span was about 88.1 kilonewtons (19806 pounds)(Binder 16, Appendix 23 – McMaster Test Results Report, page iii). Mr. Sivakumaran concluded the failure mode of the load capacity testing can be described as crushing of the truss top chord hollow circular tubes due to the loads transferred through the cathead beam flanges (Binder 16, Appendix 23 – McMaster Test Results Report, page 5-1).

Ministry of Labour Professional Engineers Saeed Khorsand and Robert Molina conducted an audit of the various calculations relating to the total weights and loading for the stage and roof grid structure. It was determined that there were five calculation discrepancies within the professional engineered drawings produced by Construction Control Inc. [S.21] [S.21] for the system scaffolding stage to be constructed at Downsview Park and when the weights from the Radiohead's plot plan were transferred to the roof grid structure.

The first discrepancy was when the weights from the Radiohead's plot plan were transferred to the Downsview Park stage roof grid structure. Optex Staging & Services Inc. [S.21] [S.21] received the Radiohead plot plan that outlined the specific locations required for placement of the hoist motors and exact weights to be suspended from those motors within Downsview Park roof grid structure. The overall suspended weight listed on the Radiohead plot plan was approximately 63,732 pounds. When the Radiohead plot plan weight was transferred by [S.21] onto the Downsview Park stage roof grid structure and provided to [S.21] the total weight was 60,072 pounds (Binder 10, Appendix 12 - -radiohead grid dwg email and drawings (paragraph 12)). [S.21] miscalculated approximately 3,660 pounds of weight during the transfer of hoist motors onto the roof grid structure (Binder 4, Appendix 8 – Ministry of Labour Professional Engineering Report). Construction Control Inc., [S.21] [S.21] calculated and performed all his calculations and computer analysis based on an overall Radiohead plot plan weight of 60,000 pounds for the roof grid system (Binder 9, Appendix 14 - [S.21] 's hand written calculations to determine the counterweight requirements (paragraph 8)).

The second discrepancy was in Construction Control Inc., [S.21] [S.21] calculation with the overall weight of the suspended roof grid system. Ministry of Labour Professional Engineers Saeed Khorsand and Robert Molina determined that [S.21] performed his calculations based on the suspended roof weight of the Radiohead plot plan of 60,000 pounds and did not include the roof grid self-weight, additional bracing, tarp and hoist motor rigging components which weighed approximately 12,300 pounds (Binder 4, Appendix 6 – Recorded weights during roof lift - page 4). The overall weight roof grid weight calculated by the Ministry of Labour was approximately 76,032 pounds that included the Radiohead plot plan of approximately 63,732 pounds and 12, 300 pounds for the roof grid self-weight, additional bracing, tarp, hoist motors rigging components. [S.21] miscalculated the overall weight of the Downsview Park stage roof grid system by approximately 16,032 pounds (Binder 4, Appendix 8 – Ministry of Labour Professional Engineering Report – Self-weight of Roof Structure).

The third discrepancy related to the geometry of the loads and reactions being applied to the pick-up trusses and cathead beams. Ministry of Labour Professional Engineers Saeed Khorsand and Robert Molina audited the various drawings and calculations provided for the Downsview Park stage construction and determined there were no geometry calculations provided for the pick-up trusses and cathead beams installed. Ministry of Labour Professional Engineers calculated that on the roof grid side pick-up truss was greater than the rear pick-up truss. The hand calculated weight being applied to the roof grid side pick-up truss was approximately 20,275 pounds (Binder 4, Appendix 8 – Ministry of Labour Professional Engineering Report - 6.3.3 Pick-up Truss). The computer analysis calculated weight being applied to the roof grid side pick-up truss was approximately 20,834 pounds (Binder 4, Appendix 8 – Ministry of Labour Professional Engineering Report – 6.6.1 Computer Analysis).

The fourth discrepancy related to the concrete ballasts installed within the Downsview Park stage. The Construction Control Inc. drawings indicated there were to be 16 concrete ballasts installed within the stage (Binder 5, Appendix 10 - Construction Control Inc. 4-G-S12-4139-01 - Radio Head Concert Stage Scaffold Layout and Elevations and drawing 4-G-S12-4139-02 - Radio Head Concert Stage Scaffold Typical Sections). [S.21] calculated that the concrete ballast was to weigh 3,750 pounds with an overall weight of approximately 60,000 pounds (Binder 9, Appendix 14 - [S.21] hand written calculations to determine the counterweight requirements (paragraph 8)). Ministry of Labour Professional Engineers audited the counterweight calculations and determined that [S.21] miscalculated the total counterweight required. Ministry of Labour Professional Engineers determined that approximately 76,032 pounds of concrete ballasts were required and 22 concrete ballasts weighing 3750 pounds should have been installed the roof system would not have been stabilized correctly. Ministry of Labour Professional Engineers also calculated the size of the 16 concrete ballasts installed within the stage and determined that they did not weigh 60,000 pounds as required by [S.21] Ministry of Labour Professional Engineers determined the concrete ballast installed would have weighed approximately 2,692 pounds and the overall weight of concrete ballasts installed within the Downsview Park stage was approximately 43,072 pounds (Binder 4, Appendix 8 – Ministry of Labour Professional Engineering Report – 6.3.2 Concrete Ballast Design).

The fifth discrepancy also related to the installation of the concrete ballasts within the Downsview Park stage. The drawings indicated that there were to be eight installed at the base of stage left and eight to be installed at the base of stage right (Binder 5, Appendix 10 - Construction Control Inc. 4-G-S12-4139-01 - Radio Head Concert Stage Scaffold Layout and Elevations and drawing 4-G-S12-4139-02 - Radio Head Concert Stage Scaffold Typical Sections). Observations were made that the 16 ballasts were not installed correctly and did not function as a counterweight. There were 3 concrete ballasts observed to be placed directly on the ground level and were not connected to any stage component (Binder 4, Appendix 8 – Ministry of Labour Professional Engineering Report - 6.3.2 Concrete Ballast Design). There were 13 concrete ballasts placed on wood decking that rested on the stages horizontal double ledger components. The concrete ballasts were intended to act as counterweights as the double ledger components were connected to the system scaffolding base collars rosettes but the base collars had no device or locking pin to connect to the vertical standard component. The concrete

ballasts installed at the base of the stage did not function as a counterweight system and there were no installations instructions provided.

Ministry of Labour Professional Engineers Saeed Khorsand and Robert Molina determined the primary cause of the Downsview Park stage collapse was due to crushing of the pick-up trusses top chord. The overall roof grid system weight of approximately 76,032 pounds that included the grid self-weight, tarp, additional bracing, rigging and Radiohead's plot plan caused the allowable unit stresses of the pick-up trusses top chord material to be exceeded. The load being applied to the pick-up truss on the roof grid side was approximately 20,834 pounds and the pick-up trusses failed during testing between 18,479 – 20,682 pounds (Binder 4, Appendix 8 – Ministry of Labour Professional Engineering Report – 6.6.2 Probable Failure Scenario).

The crushing was first observed on the stage at approximately 3:55pm, when Radiohead crew members observed that the bottom of Truss #6 Versatube – Yellow which is normally elevated above the stage deck by 10 centimetres was touching the stage deck (Binder 1, Appendix 3 – statement of [S.21] and [S.21]). Ministry of Labour Professional Engineers Saeed Khorsand and Robert Molina determined that the pick-up trusses were crushing and when the Truss #6 Versatube – Yellow started to touch the stage deck, the load of the roof grid system began to transfer throughout the stage and roof grid structure. When the Radiohead crew used the remote controller to raise the Versatube wall to the required height of 10 centimetres from stage level beginning with hoist motor #V9 – S/N LC084RD, it reloaded the full weight of the roof grid system back onto the crushed pick-up trusses at the upstage left (north/east) corner of the stage causing a progressive collapse. Within seconds the upstage left (north/east) collapsed downwards, pulling the top system scaffolding sections inwards towards the main stage area (Binder 1, Appendix 3 – statement of [S.21]. The roof grid system came to rest in an uneven position between the stage left, stage right, rear tower wall and main deck level (Binder 3, Appendix 5 – Ministry of Labour photograph #17-18).

Ministry of Labour Professional Engineers Saeed Khorsand and Robert Molina determined a contributing factor in the progressive collapse was the failure to insert all locking pins in the connection points of the vertical scaffolding components known as standards (Aluma Binder 15, Appendix 20 -Sure Lock Locking Pin – Structural Properties). Based on their observations there were various standards in the upper sections of the scaffolding system did not have locking pins installed (Binder 4, Appendix 8 – Ministry of Labour Professional Engineering Report). During the third scaffold test at McMaster University's Applied Dynamics Laboratory uplift was observed at the vertical standards connection points as there was no locking pins inserted during the test (Binder 16, Appendix 23 – McMaster Test Results Report, page 3-9). Ministry of Labour Professional Engineers determined that as the pick-up trusses were crushing downwards, the standards lifted from its normal level position at the connection point that did not have the locking pins inserted (Binder 4, Appendix 8 – Ministry of Labour Professional Engineering Report – 6.5.1 Full Scale Tests).

Ministry of Labour Professional Engineers Saeed Khorsand and Robert Molina provided a report of their findings relating to the Downsview Park stage collapse. The report outlined the primary cause was crushing to the pick-up trusses top chord causing a progressive collapse, the contributing factors and the discrepancies found within the professional engineered drawings that

were issued to construct the stage (Binder 4, Appendix 8 – Ministry of Labour Professional Engineering Report).

All requirements issued by the Ministry of Labour have not been complied with at time of this report due to pending independent workplace party investigations relating to the Downsview Park stage collapse.

B. COMPANY BACKGROUND:

Downsview Park:

"Downsview Park (French: *Parc Downsview*) is a park in the community of Downsview in Toronto, Ontario, Canada that first was home to de Havilland Canada, later also a Canadian Forces Base. It contains about 231.5 hectares (572 acres), of which more than 130 hectares (320 acres) are earmarked for traditional parkland, recreational and cultural amenities. As the mandate for the park requires that it be developed on a self-financing basis, approximately 102 hectares (250 acres) are dedicated to opportunities that provide a revenue stream to finance the construction, development and management of Downsview Park as an integrated, sustainable community.

The property has been the site of several high-profile events, including two Papal visits by Pope John Paul II, in 1984 (while still an active military base) and 2002 (World Youth Day), as well as the Molson Canadian Rocks for Toronto concert in 2003 featuring The Rolling Stones, AC/DC, and many others. The Canadian music festival Edgefest has also called Downsview Park home for the last two years with Linkin Park, Stone Temple Pilots, The Sam Roberts Band, Billy Talent, AFI, Alexisonfire and Metric performing. Edgefest returned to the park in 2011 and will be a featured event again in 2012. The Tragically Hip performed to a crowd of approximately 30,000 on Canada Day 2011" (Binder 5, Appendix 10 - complete article: http://en.wikipedia.org /wiki/Downsview_Park).

An Ontario Corporate Profile search was completed and outlines Parc Downsview Park was registered on July 17, 1998 and has a profile number of 1335446 (Binder 18, Appendix 34). A search for previous orders issued by the Ministry of Labour was conducted and no results were found.

Live Nation:

Live Nation is a live-events company based in Beverly Hills, California, focused on concert promotions. Live Nation formed in 2005 as a spin-off from Clear Channel Communications, which then merged with Ticketmaster in 2010 to become Live Nation Entertainment.

Live Nation "signs" artists as a "record label", but predominantly takes the role of a promoter, rather than "owner of music". The deal with U2 and Madonna for example does not include copyright of the artists' future recordings. The 2007 deal signed with Jay-Z does include the rapper's future recordings.[1][2] Live Nation signed Colombian singer Shakira, Canadian band Nickelback and Mexican singer Luis Miguel (Binder 6, Appendix 11 - complete article: http://en.wikipedia.org/wiki/Live_Nation_(events_promoter)).

An Ontario Corporate Profile search was completed and outlines that Live Nation Canada Inc. was registered July 1, 2009 and has a profile number of 1800320 (Binder 18, Appendix 34). An Ontario Corporate Profile search was completed and outlines that Live Nation Ontario Concerts GP, Inc. was registered January 1, 2011 and has a profile number of 1839895 (Binder 18, Appendix 34). A search for previous orders issued by the Ministry of Labour was conducted and results were found (Binder 18, Appendix 35).

Radiohead:

"Radiohead are an English rock band from Abingdon, Oxfordshire, formed in 1985. The band consists of Thom Yorke (lead vocals, guitar, piano), Jonny Greenwood (lead guitar, keyboards, other instruments), Colin Greenwood (bass), Phil Selway (drums, percussion) and Ed O'Brien (guitar, backing vocals). Radiohead released their debut single "Creep" in 1992...

...Radiohead have sold more than 30 million albums worldwide,[3] with the band's work being placed highly in both listener polls and critics' lists, they have the distinction of doing so in both the 1990s and 2000s.[4][5] In 2005, Radiohead were ranked number 73 in *Rolling Stone*'s list of "The Greatest Artists of All Time", while Jonny Greenwood and Ed O'Brien were both included in *Rolling Stone's* list of greatest guitarists, and Thom Yorke in their list of greatest singers.[6] In 2009, *Rolling Stone* readers voted the group the second best artist of the 2000s [7]" (Binder 7, Appendix 12 - complete article: http://en.wikipedia.org/wiki/Radiohead).

An Ontario Corporate Profile search was completed on Radiohead and no results were found. A search for previous orders issued by the Ministry of Labour was conducted and no results were found.

Optex Staging and Services Inc.:

"Optex has provided concert staging for some of the best names in show business. Custom built to customer specifications with special allowance for specific audio, lighting requirements, props and special effects needs, Optex has developed some of it's own specific design components for these purposes. From corporate picnics, religious gatherings and celebrations to world scale rock tours, Optex Staging and Services has kept it's service commitment to it's customer. The history of Optex is in staging. While Optex has built corporate and fashion stages since it's beginning, concert stages began with the original "Police Picnic" in Montreal, 1981. Since Optex has provided concert stages for Rod Stewart, Lolapalooza Festival and the Brian Adams tour. The wonder of the scaffold base stage is cheer flexibility. Extra loading can be integrated into audio fly-points, and the special requirements for the flying of lighting fixtures, truss and cabling are easily adapted."

Optex Staging and Services webpage also states the install temporary bleachers and grandstands, concert staging or simple stage or scaffold rental (Binder 8, Appendix 13 - complete article: http://www.optexstaging.com/Concert_Staging.9.0.html).

An Ontario Corporate Profile search was completed and outlines that Optex Staging & Services Inc. was registered on March 30, 1999 and has a profile number of 1347865 (Binder 18, Appendix 34). A search for previous orders issued by the Ministry of Labour was conducted and results were found (Binder 18, Appendix 35).

Nasco Staffing Solutions:

"Nasco Staffing Solutions is the largest on-demand event staffing company in Canada with over 2,500 staff. We specialize in the events industry and are the only provider of Production, Conference & Event, Promotion, Food and Beverage and General Labour staff.

Our purpose is to provide the right people to produce the best event for both you and your guests. Our cost effective systems save you money by freeing up your time to focus on your business while we put together a team of temporary staff and handle all the administration that goes with it. Nasco Staffing Solutions puts an average of 300 people to work on events per day, 364 days a year" (Binder 14, Appendix 15 - complete article: http://nasco.ca/).

An Ontario Corporate Profile search was completed on Nasco Staffing Solutions and no results were found. A search for previous orders issued by the Ministry of Labour was conducted and results were found (Binder 18, Appendix 35).

Construction Control Inc.:

Construction Control Inc., one of Canada's fastest growing multi-disciplinary engineering companies, announced today that it has changed its name to CCI Group. The new brand better represents the expanded services, increased geographic reach and wider scope of the company.

"Today marks the exciting next chapter in our history," said Dr. Gina Cody, Chief Executive Officer of CCI Group. "As we have grown as a company, we needed an identity that better reflects all the changes we have recently undergone. It was also important to maintain a connection to our history and the solid reputation we have built over the past 40 years. Our new name will help enforce the message all of our divisions and offices provide a complete range of innovative and cost-effective services."

In the past few years, the company has diversified and expanded service offerings, opened offices in Calgary, Montreal, Vancouver and Victoria, acquired three other companies and tripled in employee size. The company was recently named one of Canada's Best Managed Companies, the benchmark of success among Canadian companies. CCI Group has also recently consolidated its GTA operations by moving to a new location at 7900 Keele Street.

CCI Group provides engineering services related to the construction and rehabilitation of building structures to a wide range of clients, including leading financial institutions, REITS, property managers, condominium corporations and government institutions. For more information, please visit www.ccigroupinc.ca or email info@ccigroupinc.ca.

About CCI Group

With a history dating back to 1972, CCI Group is a multi-disciplinary engineering firm with offices in the Greater Toronto Area, Montreal, Vancouver, Calgary and Victoria. With a growing staff of experienced and passionate professionals, CCI Group provides technical leadership, sound engineering practices and consultation to the construction and property management industries. With a commitment to delivering successful, high-quality projects, CCI Group's experience helps to create an innovative solution to any challenge, no matter the project size. CCI Group's expertise and knowledge comes from working on more than 50,000 projects during the company's storied history. For more information, please visit www.ccigroupinc.ca (Binder 9 - 13, Appendix 14 - complete article: http://www.marketwire.com/press-release/construction-control-inc-is-now-cci-group-1773614.htm).

An Ontario Corporate Profile search was completed and outlines Construction Control Inc. was registered on April 1, 2010 and has a profile number of 1821199 (Binder 18, Appendix 34). An Ontario Corporate Profile search was completed and outlines CCI Group Inc. was registered on April 2, 2013 and has a profile number of 1893677 (Binder 18, Appendix 34). A search for previous orders issued by the Ministry of Labour was conducted and results were found (Binder 18, Appendix 35).

Christie Lites:

Christie Lites is a stage lighting business focused on rentals and production. We offer our specific product mix to six different market segments: theatre, concert, trade show, TV & film, corporate presentations, and special events.

Our consistent growth over the past 28 years has resulted in the establishment of 12 separate locations across North America. We have become an industry leader in operating a multi-shop network that delivers the same technical support and product offerings in each location. Our client's enjoy dedicated rental representatives to take care of their needs regardless of show location (Binder 15, Appendix 16 - complete article: http://www.christielites.com/about.htm).

An Ontario Corporate Profile search was completed and outlines Christie Lites Toronto Ltd. was registered on January 29, 1985 and has a profile number of 612477 (Binder 18, Appendix 34). A search for previous orders issued by the Ministry of Labour was conducted and results were found (Binder 18, Appendix 35).

Midnite Hour Productions:

MIDNITEHOUR Productions offers cutting-edge video presentation and processing, LED lighting and scenic products, conventional lighting, audio equipment, drapery and softgoods rentals and services (complete article: http://www.midnitehour.ca/index.php?option=com_content&view=article&id=2&Itemid=3).

An Ontario Corporate Profile search was completed and no results were found. A search for previous orders issued by the Ministry of Labour was conducted and results were found (Binder 18, Appendix 35).

C. PHYSICAL/ENVIRONMENTAL CONDITIONS:

"Downsview Park is a 231.5 hectares (572 acres) multi-use urban park that is open all year round" located at the south/east corner of Keele Street and Sheppard Avenue West in the City of Toronto with a mailing address of 35 Carl Hall Road. The Radiohead performance would be held in the area within the park known as the North Terrace Events Centre (Binder 5, Appendix 10 - Event License Agreement). This area of the park is approximately 5.5 hectare (13.6 acres) in size. The North Terrance Event Centre is an outdoor location and required that a temporary stage be erected on site to host the live performance (Binder 5, Appendix 10 - complete article: http://en.wikipedia.org /wiki/Downsview_Park).

There were various structures erected at the North Terrance Event Centre for the Radiohead performance. The main concert stage had an approximate overall outside dimension of 138 feet in width, by 75 feet in depth and 66 feet in height which did not include the wheelchair ramp and two side video screen wing walls. The stage deck for the live performance was approximately 64 feet in width, by 71 feet in depth with an overall height from stage deck to the underside of the roof grid system of 50 feet at the downstage position (audience side) and 45 feet at the upstage position (rear of stage side). The roof grid system for the live performance was approximately 60 feet in width, by 48 feet in length with a depth of 4 feet. The audience viewing field area contained various structures including scaffolding towers, various food/beverage/souvenir stands and a structure housing the main speaker system and other equipment.

The Radiohead Concert was sold out and with an estimated 35,000 tickets being sold.

The weather conditions during the stage build had temperatures ranging from 18 degree Celsius with clear to cloudy skies and 2 – 24 kilometre per hour winds (Binder 18, Appendix 33).

On the day of incident the temperature registered at Toronto Lester B. Pearson Airport at 7:00am was 19.4 degree Celsius with cloudy skies and 0 kilometres per hour winds. The temperature at 4:00pm was 26.7 degree Celsius with mostly cloudy skies and 11 kilometres per hour winds (Binder 18, Appendix 33).

D. CONCLUSION:

The Ontario Ministry of Labour responded to an event call on Saturday June 16, 2012 to investigate a stage collapse that was constructed for a music concert at Downsview Park located at 35 Carl Hall Road, in the City of Toronto within the Province of Ontario. The following items were found:

The constructor/employer [S.21] failed to ensure that every part of a project, including a temporary structure, shall be designed and constructed to support or resist all loads and forces to which it is likely to be subjected without exceeding the allowable unit stress for each material used as per Ontario Regulation 213/91 Section 31(1) (a),

The constructor/employer [S.21] failed to ensure that every part of a project, shall be adequately braced to prevent any movement that may affect its stability or cause its failure or collapse as per Ontario Regulation 213/91 Section 31(1) (b),

The constructor/employer [S.21] failed to ensure no part of a project, including a temporary structure, shall be subjected to a load in excess of the load it is designed and constructed to bear as per Ontario Regulation 213/91 Section 31(3),

The constructor/employer [S.21] failed to ensure that all vehicles, machines, tools and equipment shall be used in accordance with any operating manuals issued by the manufacturers as per Ontario Regulation 213/91 Section 93(3),

The employer failed to ensure that a building, structure, or any part thereof, or any part of a workplace, whether temporary or permanent, is capable of supporting any loads that may be applied in accordance with good engineering practice as per the Occupational Health and Safety Act RSO 1990 Section 25(1)(e)(iii),

[S.21]

Jeff Lomer
Ontario Ministry of Labour
Occupational Health and Safety Inspector
Construction Health and Safety Program
Central Region - East

APPENDICES

ITEM	BINDER	APPENDIX
NOTIFICATION DOCUMENTS -Spills Action Centre Reference Number – 7719 Report -Event Information Form – 03134FLMB280	1	1
FIELD VISIT/OFF SITE FIELD VISIT REPORTS 03134FLMB281 – 2012-Jun-17 03134FLMT285 – 2012-Jun-17 03134FLNR293 – 2012-Jun-18 03134FLPM296 – 2012-Jun-19 03134FLQP297 – 2012-Jun-20 03134FLRV298 – 2012-Jun-21 03134FLSR299 – 2012-Jun-22 03134FLTN301 – 2012-Jun-23 03134FLXW303 – 2012-Jun-26 03134FLZT305 – 2012-Jun-27 03134FMBW308 – 2012-Jun-28 03134FMCW309 – 2012-Jun-29 03134FMDP311 – 2012-Jun-30 03134FMHV312 – 2012-Jul-03 03134FMJN315 – 2012-Jul-04 03134FMKM325 – 2012-Jul-05 03134FMLL329 – 2012-Jul-06 03134FMML339 – 2012-Jul-07 03134FMNN340 – 2012-Jul-08 03134FMPQ341 – 2012-Jul-09 03134FMRM349 – 2012-Jul-11 03134FMRP350 – 2012-Jul-11 03134FMRR351 – 2012-Jul-11 03134FNBS352 – 2012-Jul-18 03134FNCP353 – 2012-Jul-19 03134FNKK354 – 2012-Jul-25 03134FQBR002 – 2012-Aug-27 03134FSQM007 – 2012-Oct-18 03134FWVL010 – 2012-Dec-21 03134GBWM011 – 2013-Jan-17	1	2

03134GDVP016 – 2013-Feb-25 03134GGQP020 – 2013-Apr-02		
WITNESS STATEMENTS Live Nation: Ken Brault – Director of Production, Central Canada Radiohead: [S.21] - Injured worker [S.21] Injured worker [S.21] - Injured worker Richard John Young (2012-06-17) – Production Manager Richard John Young (2012-06-27) – Production Manager Jules Lodewij Grommers – Head rigger Optex Staging and Services: Dale Martin – President Lindsay Nadine Shipway (2012-06-16) – Stage Build Supervisor Lindsay Nadine Shipway (2012-08-14) – Stage Build Supervisor Al "Izzy" Gullion (2012-06-16) – Roof and Rigging Supervisor Al "Izzy" Gullion (2012-10-30) – Roof and Rigging Supervisor Gary "Slim" Alvin Hurley – Crew Chief Supervisor Nasco Staffing Solutions: Gary Rothenberger - Supervisor Shannon Henry Cogan – Head Steel Climber Justin Michael Lawrence Tisdelle – Steel Climber Cody A Hone – High Rigger Construction Control Inc.: Domenic Cugliari – Professional Engineer Altaf Gafoor – Professional Engineer Others: Jovan-Junior "Johnny" Shalvarov – Security	1	3

INSPECTORS NOTES Inspector Jeff Lomer #782 May 22 – June 17, 2012 - Book 2012-69 June 17 – June 23, 2012 – Book 2012-70 June 25 – July 16, 2012 – Book 2012-71 July 17 – Sept 7, 2012 – Book 2012-72 Sept 10 – Oct 25, 2012 – Book 2012-73 Oct 26 – Dec 20, 2012 – Book 2012-74 Dec 21 – Jan 25, 2013 – Book 2012-75 Jan 25 – Feb 27, 2013 – Book 2013-76 Feb 28 – Apr 11, 2013 – Book 2013-77 Apr 15 – May 24, 2013 – Book 2013-78 Inspector Norm Ratcliffe #288 Inspector Chris Warwick #908 Manager Ian Ward	2	4
PHOTOGRAPHS Description of Ministry of Labour photographs #1 – 76 Ministry of Labour photographs #1 – 76 Compact disc of Ministry of Labour photographs #1 – 76 Camera specifications – Panasonic DMC-TZ5 – Serial Number FN8JB001807	3	5
SKETCHES/DIAGRAMS Location of [S.21] Workplace Parties Approximate Locations at time of incident CH/E3 Rigging set-up (Bay 5-6, L-M) Hoist Motor Serial #'s on roof grid system Rigging locations on Radiohead trusses Suspended Trusses – Member Nomenclature (Thornton Tomasetti) Stage Left Pick-Up Truss Markings Stage Right Pick-Up Truss Markings Recorded weights during roof lift Recorded weights during Radiohead truss/versatube/LCD monitor lifts Recorded weights of various other components within storage facility	4	6

ITEMS COLLECTED -MOL Loose Items Tracking Sheet Pages 1-5 -Ministry of Labour - Items being stored for testing purposes inventory list.	4	7
PROFESSIONAL SUPPORT MATERIAL -Ministry of Labour Professional Engineering Report -Ministry of Labour – Scope of Work Meeting Attendees -Email communication from Jeremy Bishop to Saeed Khorsand regarding Testing Protocols -Protocol for Material Testing -Protocol for Structural Testing -RE: Ministry of Labour Request for Documentation email -FW: Attached Image email to Khorsand -FW: Attached Image email to Molina	4	8
MINISTRY OF LABOUR INTERNAL EMAIL CORRESPONDENCES -Ministry of Labour Case ID#03134FLMB280 – Saturday June 16, 2012 email notification -Ministry Of Labour - Summary Report #04071FLNM001 (2012-Jun-18) -Ministry of Labour - Summary Report #04071FLNM001 Update #1 (2012-Jun-26) -Events -Follow-up Required -Downsview Park Items to be moved -RE: downsview stage collapse -RE: your U-Haul order -RE: Ministry of Labour Meeting Room Use -RE: Transportation Costs -RE: Emailing: Downsview Stage Collapse – RFP -Materials Testing of Structural Components, Nov 13, 2012 -RE: family contact email -RE: Director Approval Request – Case ID#0314FLMB280 -Re: Scaffold Material Quotation -RE: MOL-Stage collapse project email and attachment	4	9

(MOL signed agreement Load Test McMaster Univeristy.pdf) -WebBEST Receipt – U-Haul Equipment Contract 95918783 - WebBEST Receipt – U-Haul Equipment Contract 97448716 -RE: Will say of Ian Ward email		
DOWNSVIEW PARK Event License Agreement 4-G-S12-4139-01 (Radio Head Concert Stage Scaffold Layout and Elevations – Construction Control Inc. - Dated June 7, 2012) 4-G-S12-4139-02 (Radio Head Concert Stage Scaffold Typical Sections – Construction Control Inc. - Dated June 7, 2012) 4-G-94-5654-01 (Arrangement and Details of Primary Truss and Pick-up Truss Fabrication – Stanford Engineering Limited - July 21, 1992) 4-G-94-5654-02 (Arrangement and Details of Additional Sections of Primary Truss – Construction Control – April 28, 1994) 4-G-94-5654-03 (Truss Fabrication Details Elevations and Notes – Construction Control Inc. – June 8, 2012) 4-G-94-5654-04 (Secondary Truss Loading Diagram for 60'-0" Truss – Construction Control Inc. – June 8, 2012) 4-G-01-7570-01 (Concert Stage Details – Construction Control Inc. - June 8, 2012) -complete article: http://en.wikipedia.org/wiki/Downsview_Park	5	10
LIVE NATION -Construction Control Inc. Report S12-4139 -Radiohead Stage Collapse email -Construction Control email - Live Nation Orders email -Live Nation Materials, as discussed email -Live Nation Files, No. 1 email -Live Nation and Nasco Staffing Solutions Agreement -Live Nation and Optex Staging & Services Inc. Temporary Stage Agreement -Radiohead 6.16.12 Onsite Staff Information	6	11

-Downsview Park and Live Nation Contract -Live Nation and Midnite Hour Productions Quotation -Live Nation Files 2 email - Live Nation and Ticket Tape Touring (Radiohead) Contract -Live Nation files, No. 3 email -4-G-S12-4139-02 (Radio Head Concert Stage Scaffold Typical Sections – Construction Control Inc. - Dated June 7, 2012) -4-G-01-7570-01 (Concert Stage Details – Construction Control Inc. - June 8, 2012) -4-G-94-5654-04 (Secondary Truss Loading Diagram for 60'-0" Truss – Construction Control Inc. – June 8, 2012) -4-G-S12-4139-01 (Radio Head Concert Stage Scaffold Layout and Elevations – Construction Control Inc. - Dated June 7, 2012) -Live Nation files, No. 4 email - 4-G-94-5654-01 (Arrangement and Details of Primary Truss and Pick-up Truss Fabrication – Stanford Engineering Limited - July 21, 1992) -Live Nation files, No. 5 email 4-G-94-5654-02 (Arrangement and Details of Additional Sections of Primary Truss – Construction Control – April 28, 1994) -Live Nation files, No. 6 email -4-G-94-5654-03 (Truss Fabrication Details Elevations and Notes – Construction Control Inc. – June 8, 2012) -Live Nation files, No. 7 email [S.21] - Clinical Information Report (Paramedic Joseph/Logan) -scan of envelope with Brian Wares and Duncan Swift names on it -Live Nation files, No. 8 - Clinical Information Report for [S.21] - Clinical Information Report for [S.21] -Live Nation files, No. 9 - Clinical Information Report of J. Sandomirsky - Clinical Information Report of J. Logan - Clinical Information Report of E. Joseph -RE: File Transmission Confirmation email -Blaney McMurtry Barristers & Solicitors LLP courier letter with enclosed information sheet and 4 compact discs -FW: CHECK emails -Downsview Park Scaffolding Components Inventory List -Live Nation – 35 Carl Hall Road, various Field Visit Reports email		

-Your Last Orders email -RE: Ken Brault Interview emails -Thursday's meeting email -LIVE NATION – Material in Response to Ministry of Labour Field Visit Report dated July 9, 2012 cover letter -encrypted USB stick (code – BMLLP2012) -4-G-00-7285-01 (Molson Park – Barrie, Ontario – Construction Control Inc. – May 2000) -2-92-4773-04 (truss and bracing arrangement and – Construction Control - Nov '93) -2-92-4773-03 (arrangement and details of head block assembly – Construction Control - Nov '93) -2-92-4773-02 (arrangement and details of base section – Construction Control - Nov '93) -4-G-91-4451-01 (Truss fabrication details and elevations & notes – Stanford Cody Limited - July 18, 1991) - email communications regarding scaffolding between – Radiohead, Live Nation, Optex Staging and Construction Control -Inspection Certificate – Motor #LC059KG - Inspection Certificate – Motor #LC060KG - Inspection Certificate – Motor #LC061KG - Inspection Certificate – Motor #LC062KG - Inspection Certificate – Motor #LC064KG - Inspection Certificate – Motor #LC065KG -Optex Staging and Services Inc. Invoice #4058 -OSG Training Report – The Molson Amphitheatre C19815 -Live Nation Front Of House Show Team Guide 2012 -Live Nation Security Show Team Guide -Live Nation Staff Acknowledgement Forms -Stage & Rigging Plot_Stage and Rig Plot drawing -RADIO HEAD_Layout 1. pdf drawing -RADIO HEAD_Layout 2. pdf drawing -Grid Load Drawing Radiohead Toronto R2 June 14 Model pdf drawing -Grid Load Drawing 13/7/12 4:23 (a-f) -RADIO HEAD.dwg 13/7/12 4:23 (a-b) -Stage and Rigging Plot.dwg 13/7/12 -RE: Ministry of Labour Field Visit #03134FQBR002 email -Automatic reply: Ministry of Labour Field Visit #03134FQBR002 email -RE:Live Nation – Ministry of Labour Field Visit #03134FQBR002 and others email - part of 4-G-91-4451-01 (Truss fabrication details and		

elevations & notes – Stanford Cody Limited - July 18, 1991) -RE: Ministry of Labour Field Visit Report #03134GBWM011 email and attachment -RE: Outstanding Item email (from Jack B. Siegel) -Optex Staging and Services Invoice #4022 -Exhibit B – Equipment Signoff (Example Form) -Construction Control Inc. Report S12-4139 -RE: Outstanding Item email (from Paul Corcoran) -RE: Ministry of Labour Field Visit #03134GGQP020 and attachment -complete article: http://en.wikipedia.org/wiki/Live_Nation_(events_promoter)		
RADIOHEAD [S.21] -Radiohead – Facebook Post and Photo email - Facebook Posting - Rear Stage Photograph just prior to collapse photograph - Disconnected diagonal brace within stage structure photograph - Plot drawings email - 001 Key drawing - 010 Stage Plan drawing - 025 Truss Control Channels Good drawing - 031 Rear Mac 101 Numbering drawing - 032 Versatube D2/B2 Drive & Address Map - 122 Front View (P) drawing - More Construction Drawings email - Verastube Drawings - Fwd: Links to Kinseys email - 1131 – Project Whistler Structural Report document -Re: RH contract with LN email - Fwd: Small photos email with eight photographs (1039, 1064, 1071, 1162, 1418, 1486, 1488, 2274) - Contract between Radiohead and LN email and contract - Ticker Tape LLP Downsview Park Tour Personnel Information documents -Grid Load Drawing Radiohead Toronto R2 June 14 Model pdf drawing -RH12 Rigging A v3.pdf -RH12 Rigging A v5.1pdf -RH12 Rigging B v5.1pdf	7	12

-Tour Personnel Curriculum Vitae, Insurance Documents and various training certificates -Tour Personnel Invoices and offer for tour employment -Toronto Concerns email -Ian Lomas statement -Re: Emailing: FVR – Ticker Tape Touring 2012 – 120703 email -Radiohead equipment release? Email -RE: Radiohead/Downsview Park email -complete article: http://en.wikipedia.org/wiki/Radiohead -Compact Disc One – "Radiohead Documents – 03134FLMT285" -Compact Disc Two – "Radiohead #2"		
OPTEX STAGING AND SERVICES -Employee Records Email with attachment of screen shot of employees (Lindsay Shipway, Gary Hurley, Al Gullion) Lindsay Shipway Training Records -Gary Hurley Training Records -Payroll records for Lindsay Shipway -Payroll records for Gary Hurley -Payroll record for Al Gullion -Health and Safety Documents and Policy -July 13th requirements email -ORDERS email with attachments for engineer drawings: 4-G-01-7570-01 (Concert Stage Details – Construction Control Inc. - June 8, 2012) 4-G-94-5654-01 (Arrangement and Details of Primary Truss and Pick-up Truss Fabrication – Stanford Engineering Limited - July 21, 1992) 4-G-94-5654-02 (Arrangement and Details of Additional Sections of Primary Truss – Construction Control – April 28, 1994) 4-G-94-5654-03 (Truss Fabrication Details Elevations and Notes – Construction Control Inc. – June 8, 2012) 4-G-94-5654-04 (Secondary Truss Loading Diagram for 60'-0" Truss – Construction Control Inc. – June 8, 2012), (4-G-S12-4139-01 (Radio Head Concert Stage Scaffold Layout and Elevations – Construction Control Inc. - Dated June 7, 2012) 4-G-S12-4139-02 (Radio Head Concert Stage Scaffold Typical Sections – Construction Control Inc. - Dated June 7, 2012) -Construction Control Field Review Report	8	13

-ROOF-RIGGER email -Optex Staging Responsibilities for Roof Rigger -The Total Scaffold System Product Manual from Etobicoke Ironworks Limited -Email 2 Attachments email -6x19 Rope – Unirope specification -AW53-16T Vanguard specification -NFPA 701 Large Scale Flame Resistance of 16oz. Vinaguard Vinyl-Coated Fabric specification -CAN/ULC-S109 Flame Testing on 16oz. Supported Vinyl Fabric specification -CMCO Powered Chain Hoist letter from Ken Tilson -Chord 1-13 document -RE: July 13th requirements email -FW: AJW Engineering email -Fw: Downsview Equipment email -RE: Downsview Equipment -RE: Inspection Reports email -Scaffold Metrics Professional Engineer Report #201224R01 -Scaffold Metrics Professional Engineer Report #201224R02 -Requirements email -Bungee installation instructions -Optex Letter Sept 21, 2012 -2010 Ringscaff Product Manual email -2010 Ringscaff Product Manual -Scaffold email -Optex Equipment List Receipt – 2012-10-18 -Fwd: RE: PA Beams email -Cat head and 10'support truss/ladder email and attachments -complete article: http://www.optexstaging.com/Concert_Staging.9.0.html		
CONSTRUCTION CONTROL INC. -Construction Control Inc. June 21, 2012 Cover Letter -Downsview Park Stage email -Construction Control Inc. Field Review Report – June 15/12 – Project No : S12-4139 -Construction Control Inc. Bracing of Secondary Trusses Drawing #2-G-S12-4139-SK1 -six photographs taken by Professional Altaf Gafoor -Construction Control Inc. June 21, 2012 introduction	9 - 13 9	14 14

letter -Request for Extension – Construction Control Ins. Emails -Re: OHS Case ID: 03134FLMB280 and Field Visit No: 03134FMPQ341 letter – July 12, 2012 -Construction Control Inc. July 19, 2012 Cover Letter with paragraph explanations -Downsview/radio head email and drawings – May 13, 2012 (paragraph 1) - Fwd: first dwg for dom email and drawings – June 5, 2012 – 7:42am (paragraph 2) -Fwd: dwg 2 email and drawings – June 5, 2012 – 7:43am (paragraph 3) -Fwd: preliminary load analysis email and drawings – June 5, 2012 – 7:45am (paragraph 4) -MEETING email – June 6, 2012 (paragraph 5) -FOLLOW UP email – June 7, 2012 (paragraph 6) -computer analysis performed by [S.21] that analyzed bracing requirements for a stage build on a wind load analysis (paragraph 7) -three hand sketches by [S.21] identifying those locations that required additional bracing (paragraph 7) [S.21] hand written calculations to determine the counterweight requirements (paragraph 8)		
-Computer analysis performed by [S.21]. on June 7 & 8, 2012 of the secondary truss based on the loading for the secondary trusses provided by Optex (paragraph 9) -hand calculations and four sketches by [S.21] [S.21] in order to identify which members of the secondary truss required additional reinforcement (paragraph 9) -Radio Head Concert Stage email and drawings (paragraph 10) -radiohead grid dwg email and drawings (paragraph 12)	10	14
-computer analysis performed by [S.21]. on June 15, 2012 of the secondary truss for Chord 5 based on the revised loading for the secondary trusses provided by [S.21] (paragraph 13)	11	14
-additional sketch of Chord 5 by [S.21] in order to identify whether any reinforcement of the	12	14

secondary trusses for Chords 5 was required (paragraph 13) -computer analysis performed by [S.21] on June 15, 2012 of the secondary truss for Chord 13 based on the revised loading for the secondary trusses provided by [S.21] (paragraph 13) -Construction Control Inc. Bracing of Secondary Trusses Drawing #2-G-S12-4139-SK1 (paragraph 14) -Downsview Park Stage email and document - June 16, 2012 (paragraph 15)		
-Construction Control Inc. September 25, 2012 Cover Letter -4-G-92-4773-01 (Arrangements and details of primary truss and pick-up truss fabrication – July 21, 1992) -4-G-94-5434-02 (Arrangements and details of additional sections of primary truss – April 28, 1994) -4-G-94-5654-03 (Truss fabrication details elevations & notes – July 18, 1991) was 4-G-91-4451-01 -4-G-91-4451-01 (Truss fabrication details elevations & notes – July 18, 1991) -4-G-94-5654-04 (Secondary Truss Loading Diagram for 60'-0" Truss – Construction Control Inc. - March 23, 1994) -4-G-94-5654-05 (Secondary Truss Loading Diagram for 80'-0 truss – March 23, 1994) -2-G-94-5654-06 (arrangement and details of head block assembly – Nov '93) was 2-92-4773-03 -2-92-4773-03 (arrangement and details of head block assembly – Nov '93) -2-G-94-5654-07 (arrangement and details of base section – Nov '93) was 2-92-4773-02 -2-92-4773-02 (arrangement and details of base section – Nov '93) -2-G-94-5654-07 (truss and bracing arrangement and – Nov '93) was 2-92-4773-04 -2-92-4773-04 (truss and bracing arrangement and – Nov '93) -April 28, 2000 testing documents for primary trusses at Casino Rama and P.Eng notes -4-G-00-7285-02 (Concert Stage Layout – May 2000) -The Total Scaffold System Product Manual from Etobicoke Ironworks Limited - complete article: http://www.marketwire.com/press-release/construction-control-inc-is-now-cci-group-	13	14

1773614.htm		
NASCO STAFFING SOLUTIONS -Field Visit Report 03134FLMT285 Page 8 of 8 -June 16th, 2012 – DOWNSVIEW List of Nasco workers -Nasco Staffing Solutions 2012 Employee Handbook -employee records for the workers at Downsview Park on June 16th, 2012 -James Little email -James Little employee records -complete article: http://nasco.ca/	14	15
CHRISTIE LITES -Christie Lites business card for Denis Richard -Christie Lites cover letter -employees on site document -Christie Lites Health and Safety Policy -Detailed Rental Order Equipment List #699187 -Rental Contract #699466 -Rental Contract #699187 -Holden & Quirt Request for Information (Jan 4 - Fax) -Holden & Quirt Request for Information (Jan 4 - Regular Mail) -Holden & Quirt 54-1-k email (Feb 26 – Fax) -Holden & Quirt 54-1-k email (Feb 26 – Regular Mail) -complete article: http://www.christielites.com/about.htm	15	16
SCAFOM CANADA INC. -Return Invoice #E63266 fax – 09-18-12 – 15:59 -Return Invoice #E63266 fax – 09-18-12 – 16:04 -2010 Ringscaff Product Manual – Canada (1) email -Ringscaff - Product manual Canada -January 30, 2013 email and attachments (inspection report by optex staging.pdf; purchase and return receipts.pdf)	15	17

SCAFFOLD RUSS DILWORTH -Field Visit Report #03134FMPQ341 page 9 of 9 -T.O.P.S. Scaffold & Shoring Supply Ltd. Product Engineering Data -RE: Scaffold Component Testing Report emails -Scaffold Russ Dilworth 54-1-k compliance document	15	18
ETOBICOKE IRON WORKS -RE: Ministry of Labour Email Addresses - September 20, 2012 email -Double ledger 7'lg document -Double truss ledger product data sheet -Engineering data selected - EIW - 2GB memory stick containing the following documents: -Company Profile -Formwork -Miscellaneous Ironworks -Scaffolding -Shoring -Structural Steel	15	19
ALUMA SYSTEMS INC. -Ontario Ministry of Labour – Request for Scaffolding Components email -Re: Test of Components email and letter (Nov 8, 2012) -Re: Test of Components email and letter (Nov 16, 2012) -Ministry of Labour Request email -FW: Test of Components email and letters (Jan 7, 2013 Lomer ltr 01 4 12.doc MOL Scaffold Equipment Inspection.pdf) -RE: Test of Components email (Jan 7-18, 2013) -Test of Components email and letters (Jan 21, 2013) -RE: Test of Components emails (Jan 22, 2013) -Re: Ministry of Labour and Aluma Systems Inc emails (Jan 22, 2013) -Ministry of Labour and Aluma Systems Inc email (Jan 23, 2013) -MOL and Aluma Systems email (Feb 6, 2013)	15	20

-Ontario Ministry of Labour – FW: report (Feb 13, 2013) - RE: report emails (Feb 12-13, 2013) -RE: ALUMA SYSTEMS INC email (Feb 19, 2013) -ASI email (Feb 25, 2013) -Ministry of Labour and ASI email (Feb 25, 2013) -WITHOUT PREJUDICE re ASI assistance to MOL (Feb 25, 2013) email and attachments -Gowlings Courier Cover Letter (Feb 25, 2013) email version -Asset Purchase Agreement -2389345 Calgary1 – 09/22/95 Optex Staging Limited invoice -2551026 Rivalda Road – 07/08/96 Optex Staging Limited invoice -2602200 Calgary2 – 09/27/96 Optex Staging Limited invoice -2602365 Calgary3 – 09/27/96 Optex Staging Limited invoice -Optex Credit Application Fax (Nov 28, 2002) -Optex Staging Inc. Bankruptcy documentation -Gowlings Courier Cover Letter (Feb 25, 2013) – courier hard copy version -Asset Purchase Agreement -2389345 Calgary1 – 09/22/95 Optex Staging Limited invoice -2551026 Rivalda Road – 07/08/96 Optex Staging Limited invoice -2602200 Calgary2 – 09/27/96 Optex Staging Limited invoice -2602365 Calgary3 – 09/27/96 Optex Staging Limited invoice -Optex Credit Application Fax (Nov 28, 2002) -Optex Staging Inc. Bankruptcy documentation -WITHOUT PREJUDICE re ASI assistance to MOL (Feb 27, 2013) email -Your Call email (Feb 28, 2013) -RE: Automatic reply: Your Call email (Feb 28, 2013) -RE: Scaffold Material Quotation email and attachment (Mar 1, 2013) -Aluma Systems Sale Quotation # (753) DW-02-28-13 -Aluma New Customer Setup email and attachments (Mar 4, 2013) -Credit.Info.pdf (Customer Credit Information) -Credit.Info.2.pdf -Terms.Conditions.pdf (Aluma Standard Terms & Conditions)		

-Re: Aluma New Customer Setup email (Mar 4, 2013) -Re: Aluma New Customer Setup email and attachment (Mar 5, 2013) -Credit Card Information documents -RE: Directions to Testing Lab email (Mar 11, 2013) -RE: Delivery of Scaffolding Components -RE: Ministry of Labour – Scaffolding Components Order -RE: Ministry of Labour Scaffolding Testing -Out of Office AutoReply: Ministry of Labour Request for Documentation - RE: Ministry of Labour Request for Documentation email and Sure Lock attachments -Sure Lock Coupling Pin – Structural Properties -Sure Lock Rosette – Structural Properties -Sure Lock Diagonal Brace – Structural Properties -Sure Lock Ledger – Structural Properties -Sure Lock Standard – Structural Properties -Sure Lock Base Collar – Structural Properties -Sure Lock Screwjack – Structural Properties -Sure Lock Locking Pin – Structural Properties		
DILLON DYNAMOMETER -RE : Dillon Dynamometer emails -Mechanical AP Dynamometers Installation Instructions -AP Dynamometer Service Manual -Returned Material Report (RMR) -AP Dynamometer	16	21
ACUREN - MISSISSAUGA -FW: Testing Protocol email -RE: Collection of Ministry of Labour Items email -FW: (Testing Protocol downsview stage.pdf) email -Acuren – February 1, 2013 Attendance Sheet -Business cards collected of attendees -Acuren – February 11, 2013 Attendance Sheet -Acuren – February 12, 2013 Attendance Sheet -Acuren – February 13, 2013 Attendance Sheet -Acuren USB memory stick (containing Factual Analysis Report – Acuren Project No: 128-13-0370) -RE: Factual Analysis Report – Acuren Project No: 128-13-0370 email -Ministry of Labour – Hardness Testing email	16	22

-RE: Attached Image email -Acuren Laboratory Report 13-1487 -Factual Analysis Report – Acuren Project No: 128-13-0370		
MCMASTER UNIVERSITY -Re: Ministry of Labour – Scaffold Testing email -RE: Directions to Testing Lab -Driving directions to McMaster University -Re: Wed pickup schedule (P. Heerema) -Re: Wed pickup schedule (K. Wheeler) -RE: Length of SURELOCK – standards -RE: Meeting @ ADL – McMaster University -Switching post and ledgers - RE: Meeting @ ADL – McMaster University (April 4, 2013) - RE: Meeting @ ADL – McMaster University with Strain Gauge attachment (Saeed Khorsand - April 4, 2013) -Test 2 email -McMaster University – ADL – Visitors List April 11, 2013 -McMaster University – ADL – Visitors List April 15, 2013 -McMaster University – ADL – Visitors List April 17, 2013 - McMaster University – ADL – Visitors List April 19, 2013 - McMaster University – ADL – Visitors List April 26, 2013 -RE: about scaffold test items… -McMaster Test Results Report -McMaster Test Results external hard drive	16	23
AJW - ALAN J WALKER ENGINEERING -Re: stage failure -Downsview Park Stage – Phase 1 and 2 of safe work procedure to dismantle the stage – June 19, 2012 -FW: Tarpaulin Removal email with attachment -Downsview Park Stage – Tarpaulin Removal – June 20, 2012 -Fw: DOWNSVIEW email -Downsview Park Stage – Phase 3 safe work procedure to	16	24

dismantle the stage -Re:MOL Order-AJW email -Field Visit Report #03134FMPQ341 page 7 of 9 -AJW 12-6599 stamped drawings # 1-8		
AMHERST CRANE RENTALS LTD. -Live Nation Downsview Park – Suspended Man Basket with related crane documentation	16	25
THORNTON TOMASETTI -FW: Downsview Collapse – Tagging Diagrams Progress SetV4 – email – June 28, 2012 -Collapse Incident Audible Alert System email -RE: Downsview Testing – Sample Protocol email -Thornton Tomasetti Testing Protocol	16	26
CHARLES TAYLOR ADJUSTING -Downsview Park – Stage Collapse email	16	27
HENDERSON MACHINERY MOVING INC. -Short form of Straight Bill of Landing -Henderson Machinery Moving Inc. Daily Job Orders	16	28
ONTARIO CORONER'S OFFICE -Coroner's Investigation Statement -Post Mortem Examination -Ministry of Labour Request for Information -Email communications regarding inquest.	17	29

TORONTO POLICE SERVICE -Occurrence Report #4393783 -Memorandum Notes of #9876 Moore -Memorandum Notes of #9904 Wenzel -Memorandum Notes of #793 Rebellato -Memorandum Notes of #9010 Simas -Memorandum Notes of #89887 Little -Downsview Video email -Downsview Video email and attachment -USB Stick – Piano Tuner -Viewing eCOPS Document: 4393783 - Scene -Ministry of Labour Request for Information -RE: Request for storage space email -Customer account number: 25119 -Request For New Customer Account -Paid Duty Employee Detail for Request Number 394785 -Invoice -RE: Access to Storage Unit – Tuesday April 23, 2013 email -Toronto Police Service photographs -Compact Disc – eCOPS 4393783	17	30
TORONTO EMERGENCY MEDICAL SERVICES -Incident Summary Report #12-0140272 -Ambulance Call Report 155745 – CNO -Ambulance Call Report 155482 – [S.21] -Ambulance Call Report – 155474 – [S.21] -Ambulance Call Report – 155483 – -Ministry of Labour Request for Information	18	31
TORONTO FIRE SERVICES -Emergency Incident Report #F12065906 -Firefighter Observations – Declan Dunn -Firefighter Observations – Quinn Greschuk -Firefighter Observations – Bill Pollock -Firefighter Observations – Jeff Travis -Firefighter Observations – Danielle Bratton -Firefighter Observations – Ross Welsh -Firefighter Observations – Steve Lintner	18	32

-Firefighter Observations – Taylor (Ty) Fisher -Firefighter Observations – Glenn Williams -Firefighter Observations – Steve Zavitz -Ministry of Labour Request for Information		
ENVIRONMENTAL CANADA WEATHER REPORT -Toronto Lester B. Pearson Int'l Airport – June 16, 2012 -Quality of Historical Climate Data	18	33
CORPORATION PROFILE REPORTS -RE: MOL History and Corporate Search Request -Parc Downsview Park Inc. -Live Nation Canada, Inc. -Live Nation Ontario Concerts GP, Inc. -Optex Staging and Services Inc. -Construction Control Inc. -CCI Group Inc. -Christie Lites Toronto Ltd.	18	34
MINISTRY OF LABOUR HISTORY – order search screen report -FW: MOL History and Corporate Search Request -Live Nation -Optex Staging and Services Inc. -Construction Control Inc. -Nasco Staffing Solutions -Christie Lites -Midnite Hour Productions	18	35
BUSINESS CARDS COLLECTED	18	36