

Presented at the FIG Working Week 2016,  
May 2-6, 2016 in Christchurch, New Zealand

# Data capture for Underground BIM

Marc Jaspers & Richard Harrison



## FIG Working Week 2016

CHRISTCHURCH, NEW ZEALAND 2-6 MAY 2016

Recovery

from disaster

Organised by



Platinum Partners



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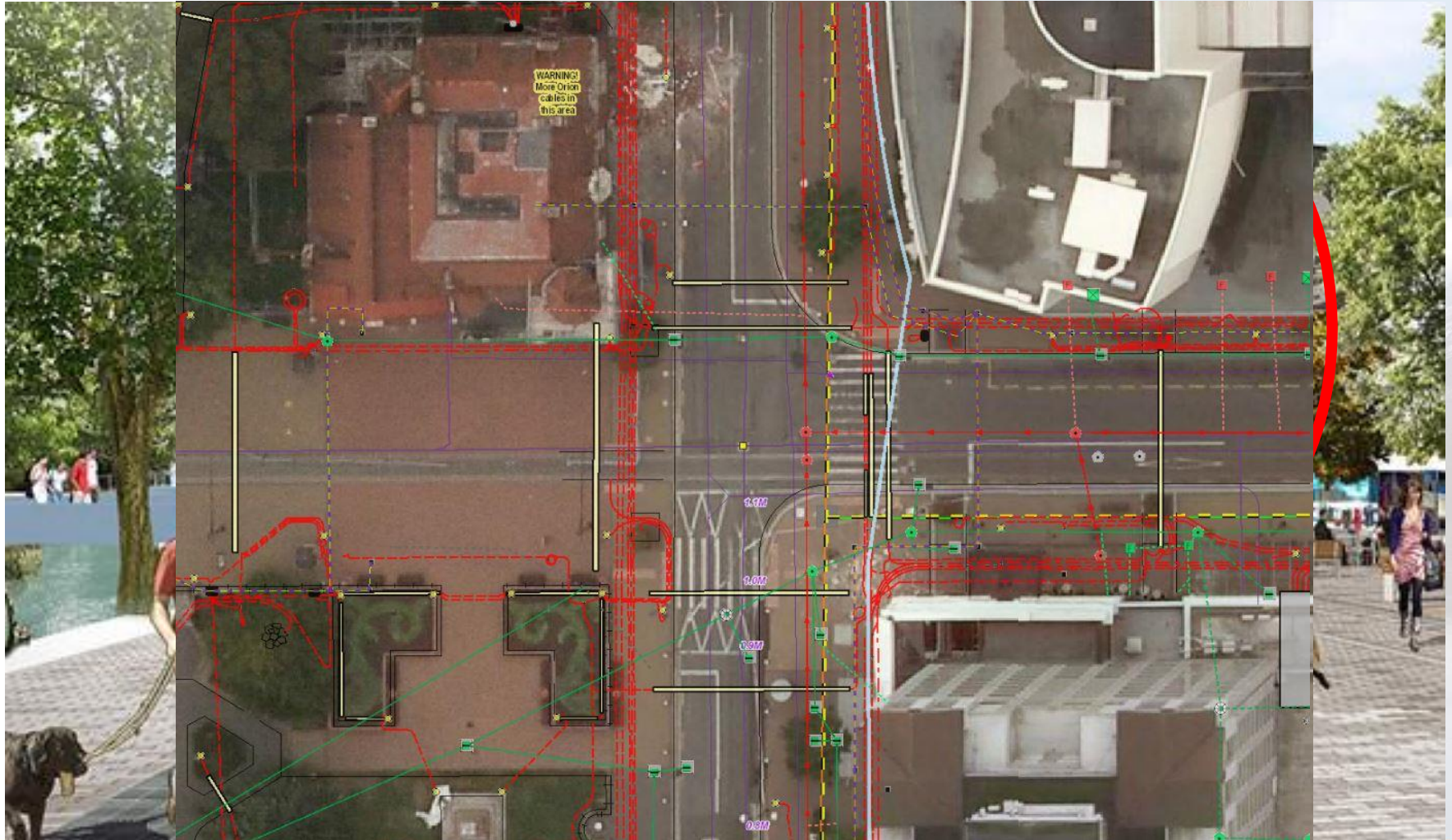


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Unique ID

Physical colour

Vertical datum

Trench ID

Data release date

Date of scan

**3D MODELED  
ELEMENTS**

Surveyors initials

Material type

Photo ID

Survey firm

Service type

Modeled colour

Job number

Size

Survey origin mark



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## DATA FORMATS

- AutoCAD (.dwg)
- 12d (.12da)
- Annotated photos (.jpg)
  
- Industry Foundation Class (.ifc)
- Point Cloud (.e57)
- Web viewer (Leica TruView)

NOW  
FUTURE?



## Laser scanning v Conventional survey

Health and safety – stay out of the trench

Verification – revisit on demand

Complete range of deliverables – future proof





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238 slot trenches up to 20m long

620 scans

2739 modelled objects

Over 41,000 attributes



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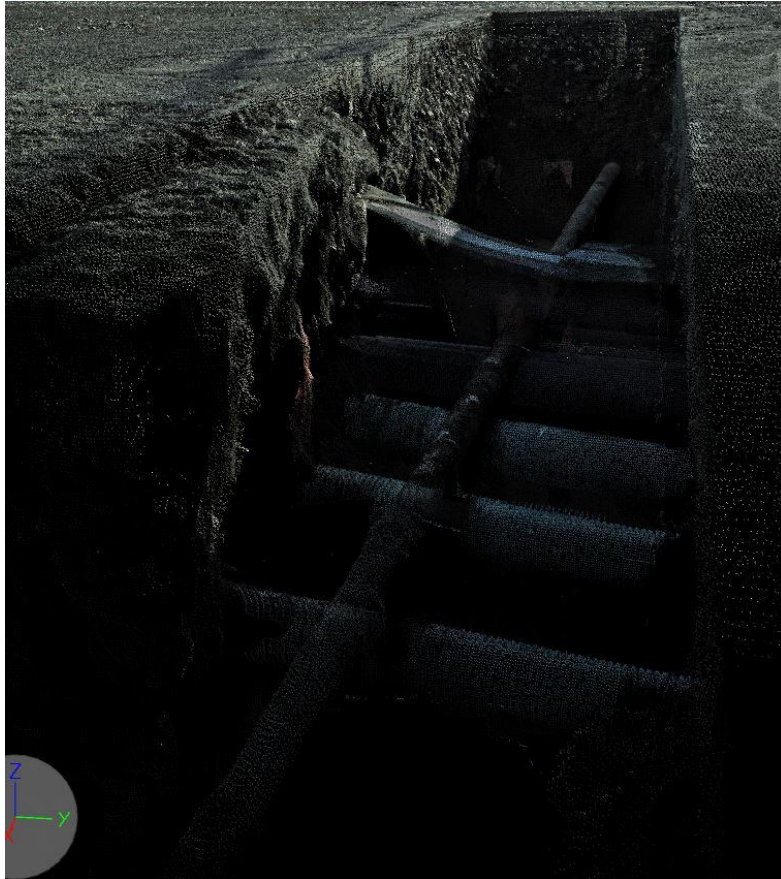
# FIG Working Week 2016

CHRISTCHURCH, NEW ZEALAND 2-6 MAY 2016

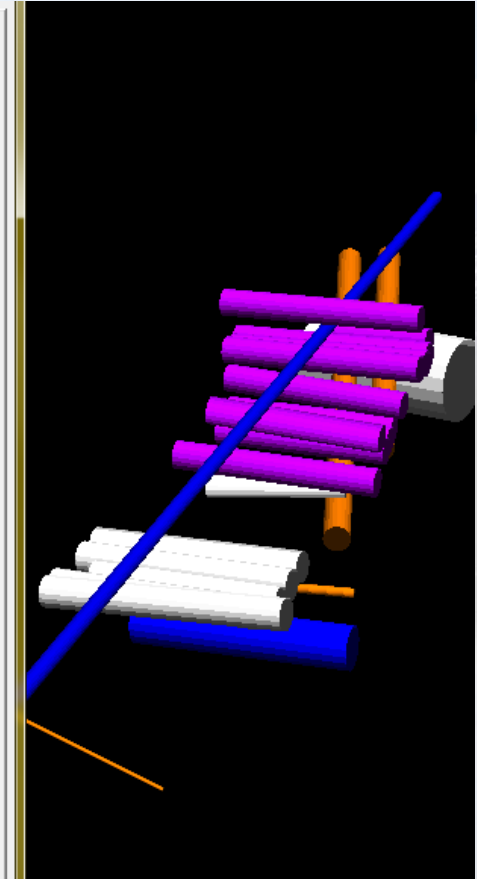
Recovery

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## PROCESSING



	Attribute	Type	Value	
1	unique ID	Text	1.28.32	↕
2	service type	Text	Reticulated_water	↕
3	diameter	Real	0.05000000	✖
4	modelled colour	Text	Blue	↕
5	physical colour	Text	Grey	↕
6	date of scan	Text	2015-09-07	
7	photo ID	Text	\Images\28	
8	material type	Text	Iron	
9	survey firm	Text	Beca	
10	survey job number	Text	3330613-110	
11	surveyor name	Text	CR+JV	
12	data release date	Text	2015-10-16	
13	origin mark name	Text	EKKA	
14	vert datum	Text	CDD	
15	string_no	Text	1.28.32	
16	Tags	Group		
17	ifc_guid_1	Text	0yVb0saH59kBd0I7c	
18	ifc_guid	Text	2ad1c1ZTf06RswPZ5	
19				



Platinum Partners:



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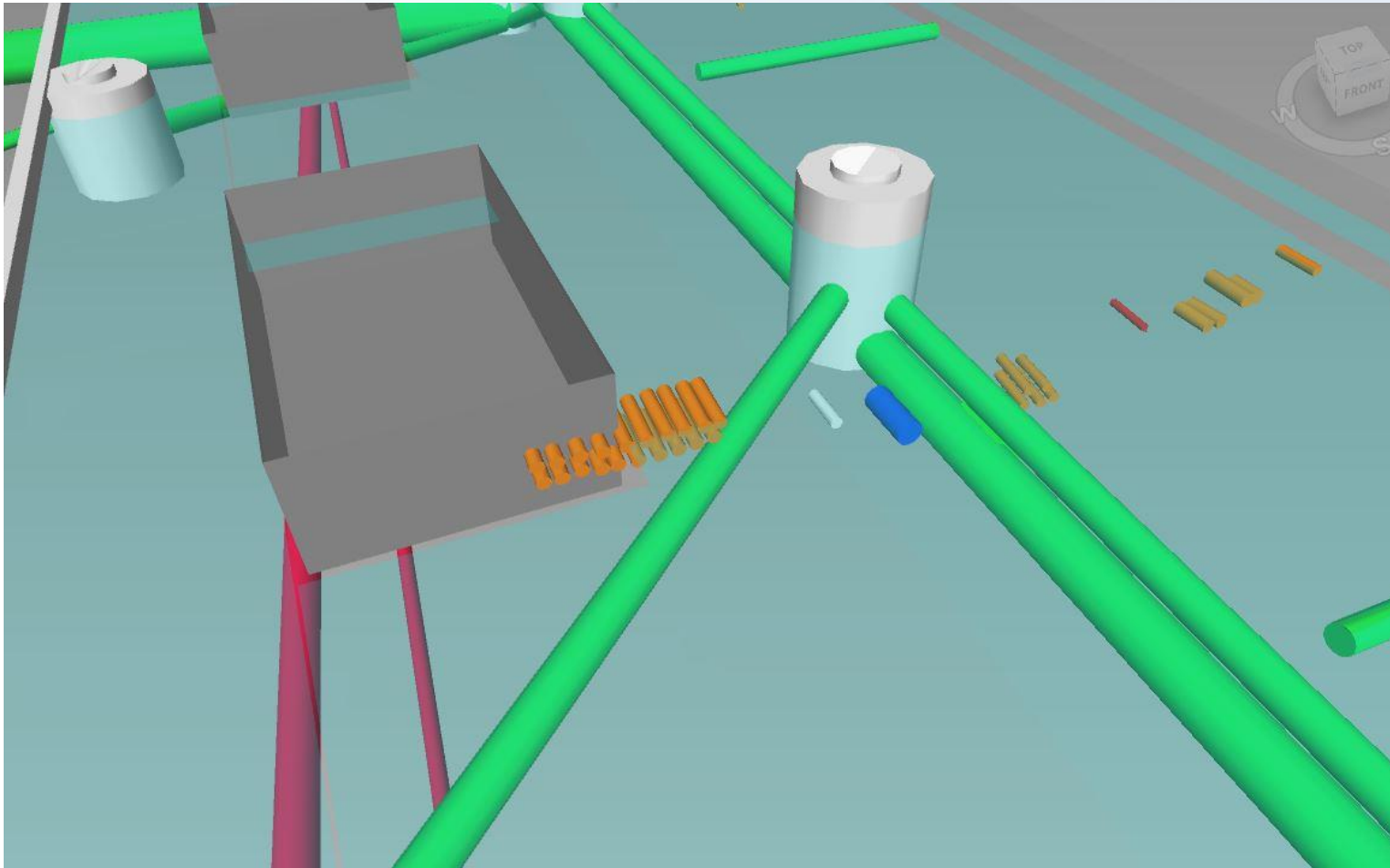


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CHRISTCHURCH, NEW ZEALAND 2-6 MAY 2016

Recovery

from disaster

- GREAT PROJECT THAT CHALLENGED US
  - UNIQUE
- LEVERAGE ON EVERY EFFICIENCY

Come and see us at the  **Beca** booth



Platinum Partners:



**Trimble**



**esri**

Diamond Partner

