

**BEFORE THE ENVIRONMENT COURT
AT WELLINGTON**

ENV-2015-WLG-024

IN THE MATTER of the Resource Management
Act 1991

AND

IN THE MATTER of applications for resource
consent by Site 10
Redevelopment Limited
Partnership and Wellington City
Council in respect of the area
known as Site 10

**STATEMENT OF EVIDENCE OF JONATHON PETER BACON
ON BEHALF OF SITE 10 REDEVELOPMENT LIMITED PARTNERSHIP AND WELLINGTON
CITY COUNCIL
3 JULY 2015**

 **Simpson Grierson**
Barristers & Solicitors

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INTRODUCTION

1. My full name is Jonathan Peter Bacon.
2. I am a Director and Owner of Mechanical Access Company (**MAC**).
3. I currently hold a Silver Card standard in the use of elevated work platforms (**EWP's**) with MAC.
4. I have worked in the construction industry for 22 years. I have run MAC for 10 years.

CODE OF CONDUCT

5. I confirm that I have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2014 and, to the extent that my evidence could be regarded as expert evidence, I agree to comply with it. I confirm that I have considered all the material facts that I am aware of that might alter or detract from the opinions that I express, and that this evidence is within my area of expertise.

SCOPE OF EVIDENCE

6. I have been requested by one of the applicants (Site 10 Redevelopment Limited Partnership) to provide evidence with regard to the use of height access equipment and related maintenance matters at Shed 21 (the Waterloo on Quay Apartment building).
7. My evidence is given in response to concerns raised in a number of identical submissions by the Waterloo on Quay Body Corporate and other occupiers of Shed 21. In particular, at paragraphs 4.5 and 4.6 of these submissions, they state that the proposal:

"will make it difficult, or impossible, for the Body Corporate to use height access equipment (e.g. knuckle boom cherrypickers, scissor lifts, cranes or static scaffolding) positioned on the southern access area to do maintenance or repair work (which is an ongoing task) on the southern wall of Shed 21 above the ground floor level (the roof parapet on the Shed 21 building is 21m high)..."

8. In preparing this brief of evidence I have reviewed the following documents to gain an understanding of the proposal (attached as **Appendix A** to this brief of evidence):
- a) TDG drawing 12950W2A;
 - b) Spencer Holmes drawing S13-0880-01;
 - c) Athfield Architects drawing RC2.04; and
 - d) Specific data sheets for the following height access equipment: Snorkel EWP'-AB60JRT and JLG 800A.
9. The key issues are:
- a) What types of height access equipment would be used to carry out maintenance work on the Shed 21 building;
 - b) Whether the proposed landscaping changes to Woolstore Plaza and surrounds will make access by this equipment more difficult or impossible than under current circumstances;
 - c) Whether the proposed Site 10 building will make access by this equipment more difficult or impossible than under current circumstances; and
 - d) If any of the proposals do make access by such equipment more difficult, is this an unacceptable effect of the proposals.

EQUIPMENT USED TO ACCESS SHED 21 FOR MAINTENANCE WORK

10. I have attended at the site on several occasions to make my assessment. MAC equipment will be used for the upcoming maintenance on Shed 21.
11. The southern end and eastern faces of Shed 21 can be accessed for short term maintenance matters using a number of different types of access equipment: a Knuckle or Straight Boom or an All-Terrain Scissor Lift. This is the machinery I would use under both the existing circumstances and the proposed new configuration.

EFFECT OF THE PROPOSALS ON USING HEIGHT ACCESS EQUIPMENT AT SHED 21

12. As there are proposed to be some ground obstacles on the southern and eastern faces of the building it is necessary to use the correct size and type of EWP. The size of the unit will dictate the maximum allowable reach.

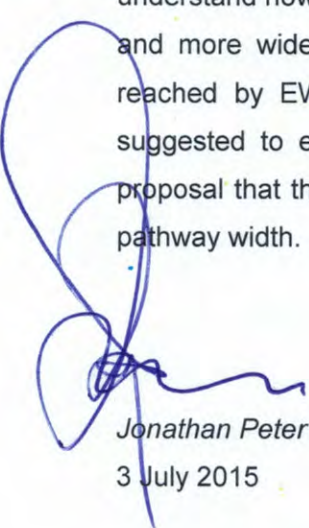
13. For example, if only lower works were required a Snorkel AB60JRT or S5290RT could be used. The boom of the AB60JRT has a maximum reach of 20.3 metres and outreach of 13.1 metres and the S5290RT Scissor Lift a maximum reach of 18 metres (as shown on the see attached specification sheets in Appendix A). However if the whole face needs to be accessed, a larger unit will be required. JLG's 800A Articulated Boom (Specification attached) has a maximum height of 24.3 meters with a maximum outreach of 16.5 meters which would be more than sufficient to reach all areas of the southern and eastern faces.
14. All of these machines have a width at ground of 2.4 metres, with an additional 0.5 metre safety perimeter, which would work well within the spaces shown in the proposal in Woolstore Plaza. However, on the eastern façade where the footpath is currently shown as 3.4 metres, this would leave a walkway of just 0.5 metres to the planters detailed, so these would need to be of a moveable type to allow a continuous safe walkway to be maintained for pedestrian while works are underway.

SECTION 87F REPORTS

15. I understand that this issue is not addressed in the section 87F reports prepared by either the Wellington City Council or the Greater Wellington Regional Council. Accordingly, I have not reviewed these in detail in preparing this evidence.

CONCLUSIONS

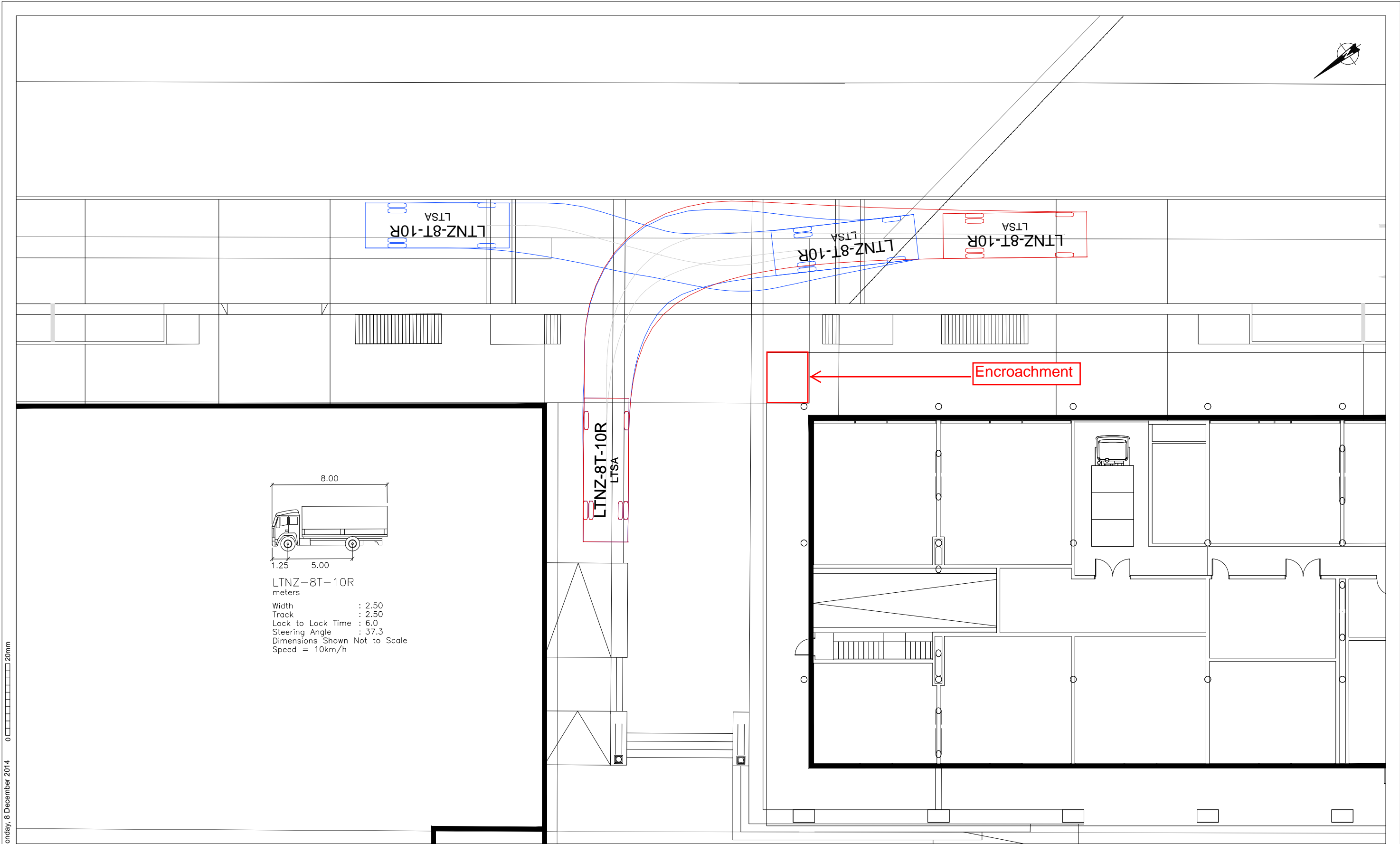
With the advancement of the EWP industry and how the construction industry is coming to understand how the EWPs can better help the industry, the uses of these units is becoming more and more widespread. There are very few tasks under the 25 metre range that cannot be reached by EWPs. In this instance, it is necessary to consider the widths that are being suggested to ensure EWPs can be used safely. I would recommend based on the current proposal that the planters be of a moveable type or narrower to ensure a reasonable minimum pathway width.



Jonathan Peter Bacon

3 July 2015

APPENDIX A: Drawings and Specification Sheets



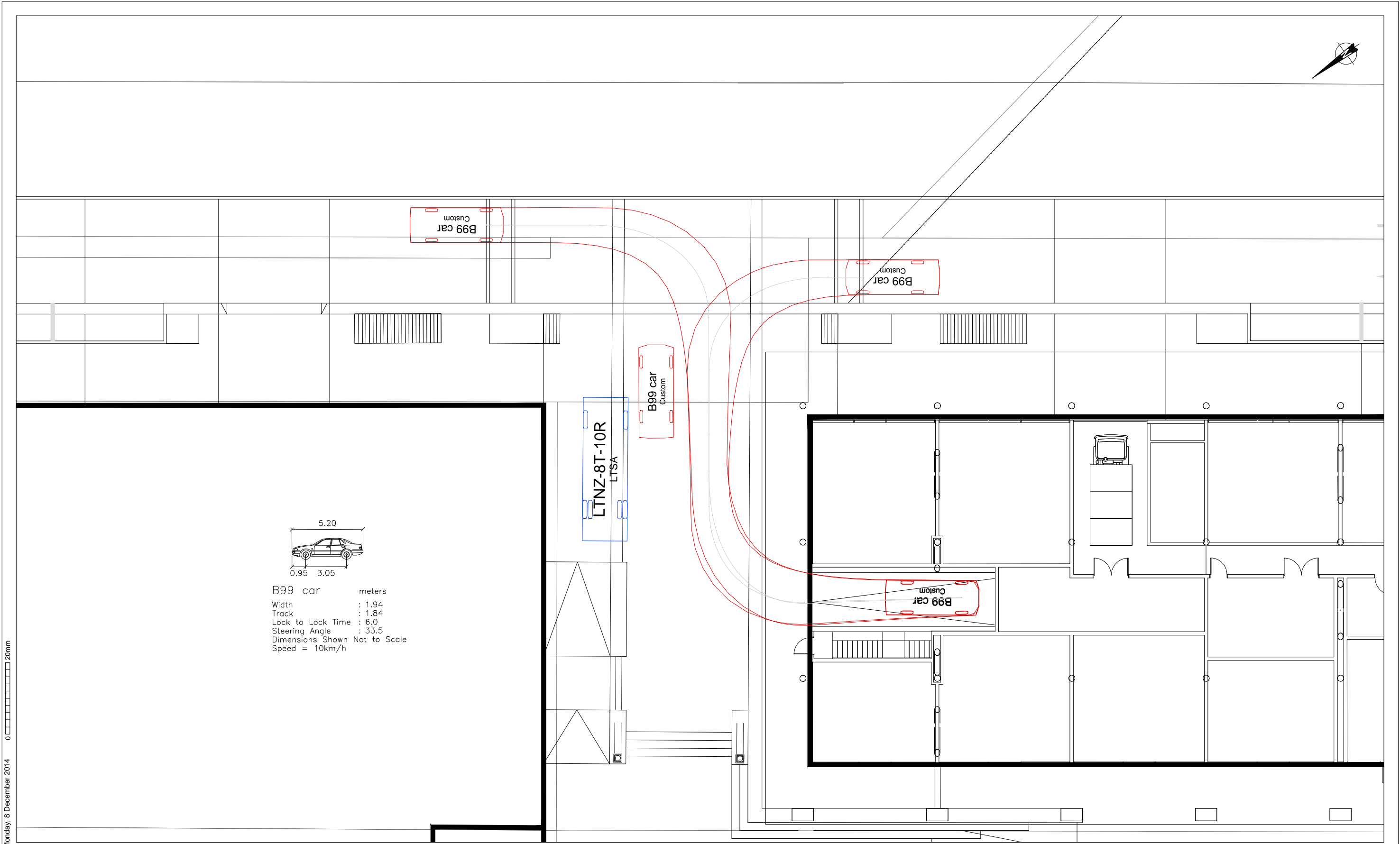
REVISION	DATE	DESCRIPTION

North Kumutoto Site 10 Development

8m Truck Manoeuvres

DRAWN: Quentin O'S
DATE: 08/12/2014
SCALE: 1:200 @ A3
DWG NO:12950W2A





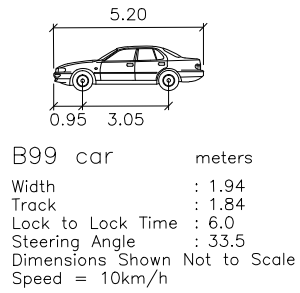
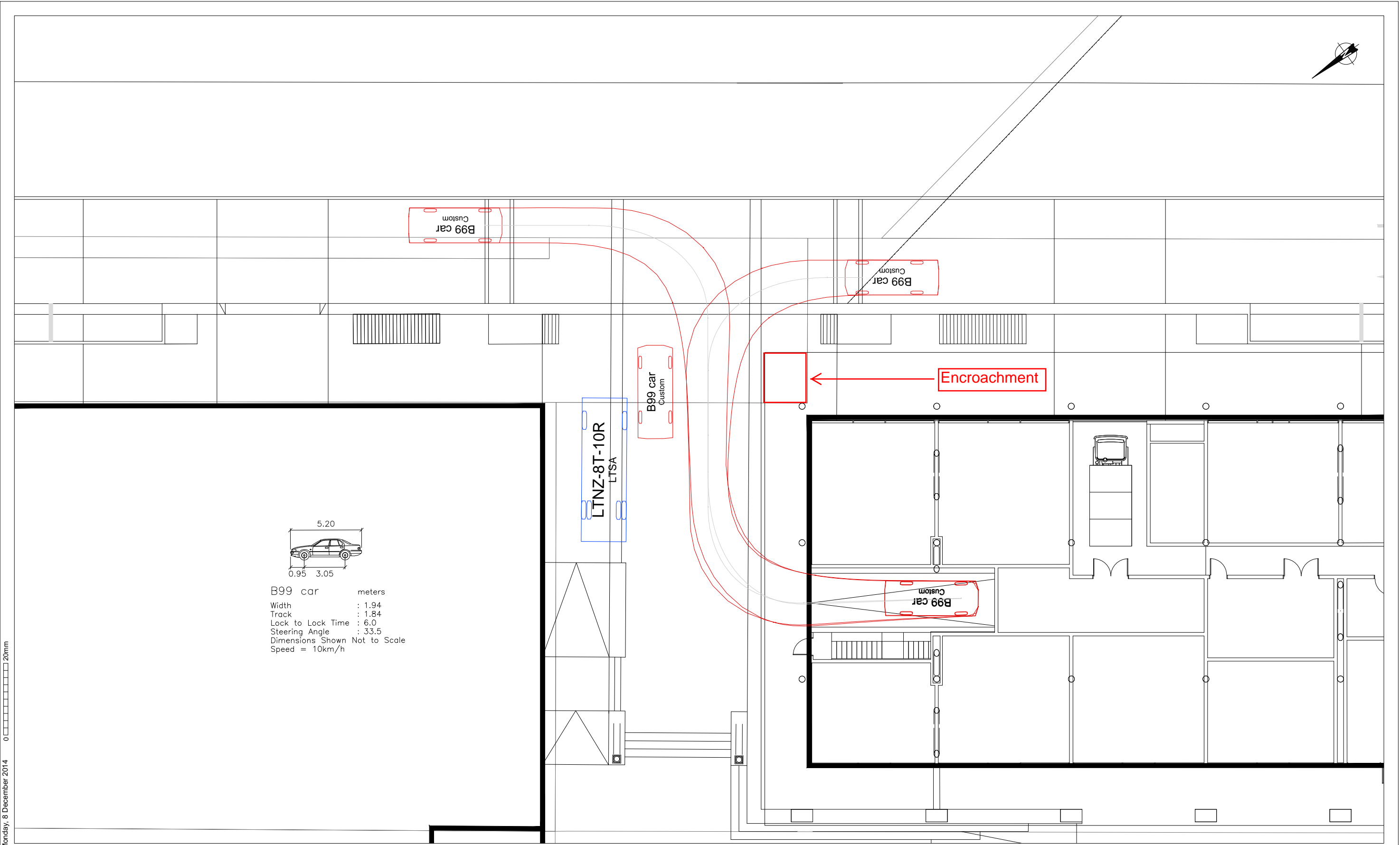
REVISION	DATE	DESCRIPTION
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North Kumutoto Site 10 Development

B99 Inbound Car

DRAWN: Quentin O'S
DATE: 08/12/2014
SCALE: 1:200 @ A3
DWG NO:12950W2A





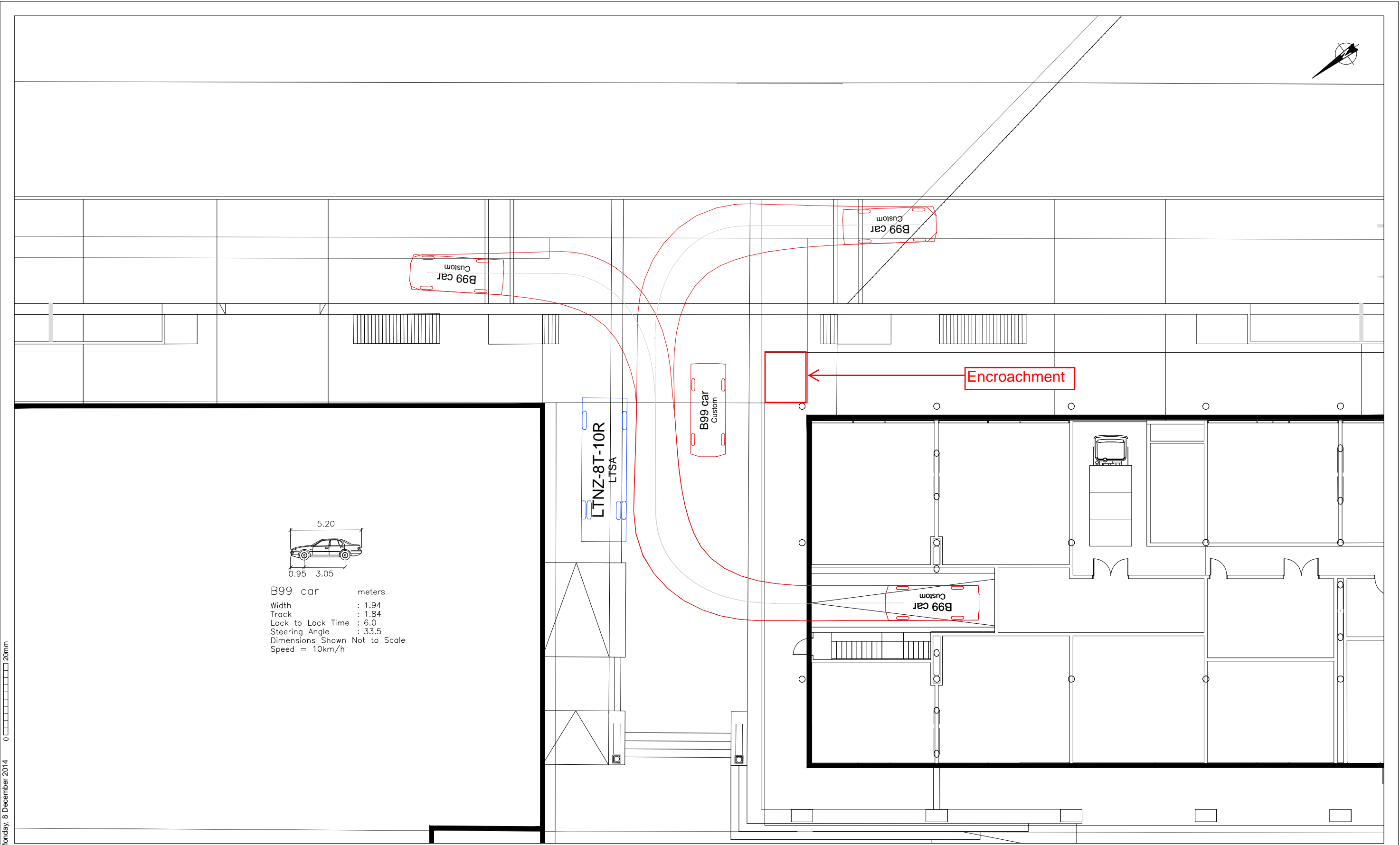
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REVISION	DATE	DESCRIPTION

North Kumutoto Site 10 Development
B99 Inbound Car

DRAWN: Quentin O'S
DATE: 08/12/2014
SCALE: 1:200 @ A3
DWG NO:12950W2A





Monday, 8 December 2014 0 20mm

REVISION	DATE	DESCRIPTION

North Kumutoto Site 10 Development
B99 Outbound Car

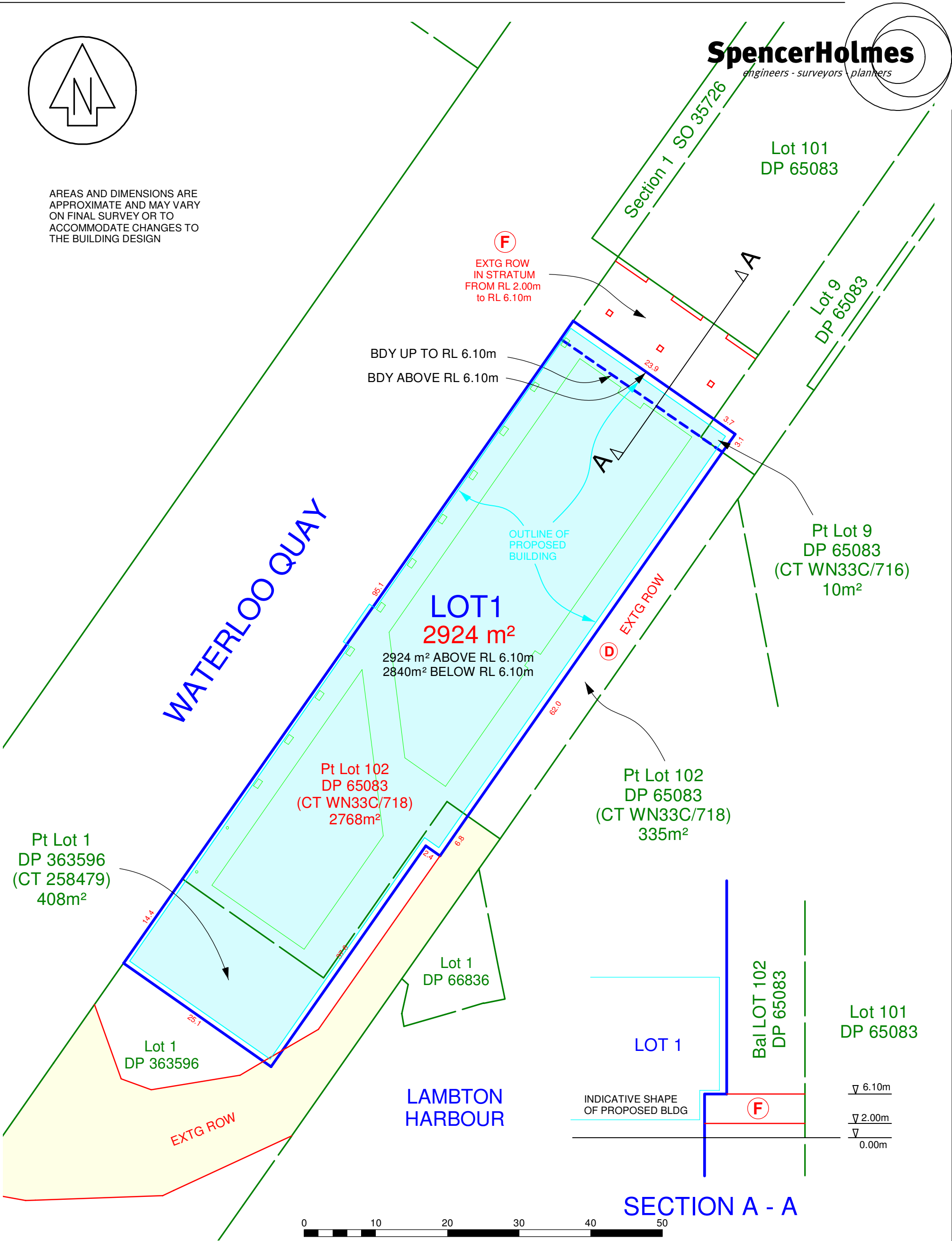
DRAWN: Quentin O'S
DATE: 08/12/2014
SCALE: 1:200 @ A3
DWG NO:12950W2A





AREAS AND DIMENSIONS ARE APPROXIMATE AND MAY VARY ON FINAL SURVEY OR TO ACCOMMODATE CHANGES TO THE BUILDING DESIGN

SpencerHolmes
engineers - surveyors - planners



SECTION A - A

Spencer Holmes Ltd

Level 6 - 8 Willis Street
PO Box 588
Wellington NZ
Ph (04) 472 2261
Fax (04) 471 2372
admin@spencerholmes.co.nz

CAUTION - The information shown on this plan has been prepared under specific instruction from the client and is intended solely for the clients use. The information is valid as at the date of survey. Spencer Holmes Ltd will accept no liability for any consequence arising out of the use of this plan, or the information thereon whether in hard copy or electronic format, by any other party for any purpose whatsoever.

**SITE 10 - DEVELOPMENT SITE
No. 10 WATERLOO QUAY**

Prepared for SITE 10 REDEVELOPMENT LTD PARTNERSHIP

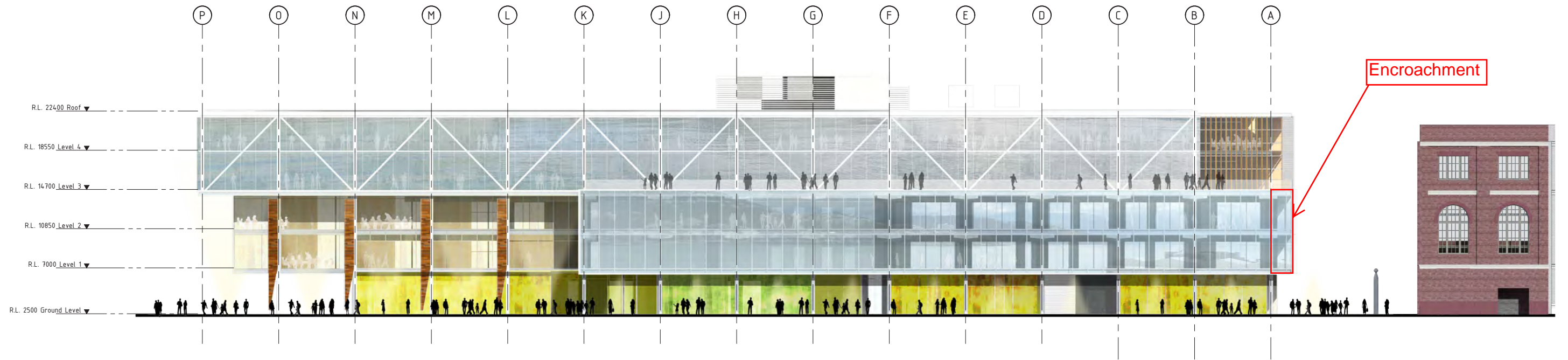
CAD FILE 130880-V2a - S13-0880-01

DATE 21-07-2014

SCALE 1:500

DRAWING NUMBER
S13-0880-01

REV
B



RC South East Elevation
1: 200 @ A1; 1: 400 @ A3

STRUCTURAL ENGINEER:
NAME : Dunning Thornton Consultants Ltd
PH
FAX
PO BOX
EMAIL

SERVICES ENGINEER:
NAME : AECOM
PH
FAX
PO BOX
EMAIL

FIRE ENGINEER:
NAME : Holmes Fire
PH
FAX
PO BOX
EMAIL

KEY:



No.

Description
DRAFT ISSUE 01/09/14

Date

65 CAMBRIDGE TERRACE
CHRISTCHURCH 8013
PO BOX 3724
CHRISTCHURCH 8140
NEW ZEALAND
TEL 64 3 377 2007
FAX 64 3 377 2009

105 AMRITSAR STREET
WELLINGTON 6035
PO BOX 3364
WELLINGTON 6140
NEW ZEALAND
TEL 64 4 499 1727
FAX 64 4 499 1960

a t h f i e l d
a r c h i t e c t s
l i m i t e d

Kumutoto - Site 10

Elevation
1: 200 @ A1; 1: 400 @ A3 @ A1

13-09

RC2.04-

510 Series

ARTICULATING BOOM LIFTS



Swing out engine for ease of service



Operator's tool tray for convenient storage



Articulating jib feature for versatile positioning

510AJ

www.jlg.com



JLG®

More reach, more control, more productivity, more value!

The new JLG Model 510AJ provides even greater choice with its 15.8 m platform height and superb working envelope that combines 9.5 m outreach with 7.6 m up and over height - putting this machine in a class of its own. Featuring standard four-wheel drive and oscillating axle, the model 510AJ provides outstanding rough terrain performance when you need it.

With a selection of value packed features to help improve operation and optimise productivity, you'll find that there is a lot more to the new Model 510AJ from JLG.



Standard Four Wheel Drive and Oscillating Axle

The Model 510AJ features four wheel drive for superior rough terrain performance. Combined with the oscillating axle feature, the 510AJ is able to climb an impressive 45% gradeability.



Control ADE™ (Advanced Design Electronics) System



Helps optimise productivity while lowering your ownership and operating costs. The Control ADE™ System provides smoother machine functions, increased fuel efficiency and reduced emissions, and reduces the number of wires and connections for enhanced reliability. Troubleshooting time is reduced with its self-test capability and function speeds can be customised to meet customer preferences.

Create Your Workstation in the Sky™



Side entry platform

Equipped with a side-entry gate and low entry height for improved access and allowing accessories to be fitted to the front of the platform.



Available on the JLG Model 510AJ - the Workstation in the Sky™ Series of access platform accessories and attachments are major innovations in aerial work platform design to make above ground jobs even more efficient and free operators from ground-based tools; relieve job site congestion; reduce noise, emissions and fuel consumption; and conserve platform space to enhance working conditions for the operator.



SkyPower™ Package - the power behind your work station

The enabling power source to run a variety of productivity-enhancing accessories. The 510AJ boom lift can be fitted with an optional engine driven, self-contained 7,500 watt generator with power lines running inside the power track to AC outlets in the platform.

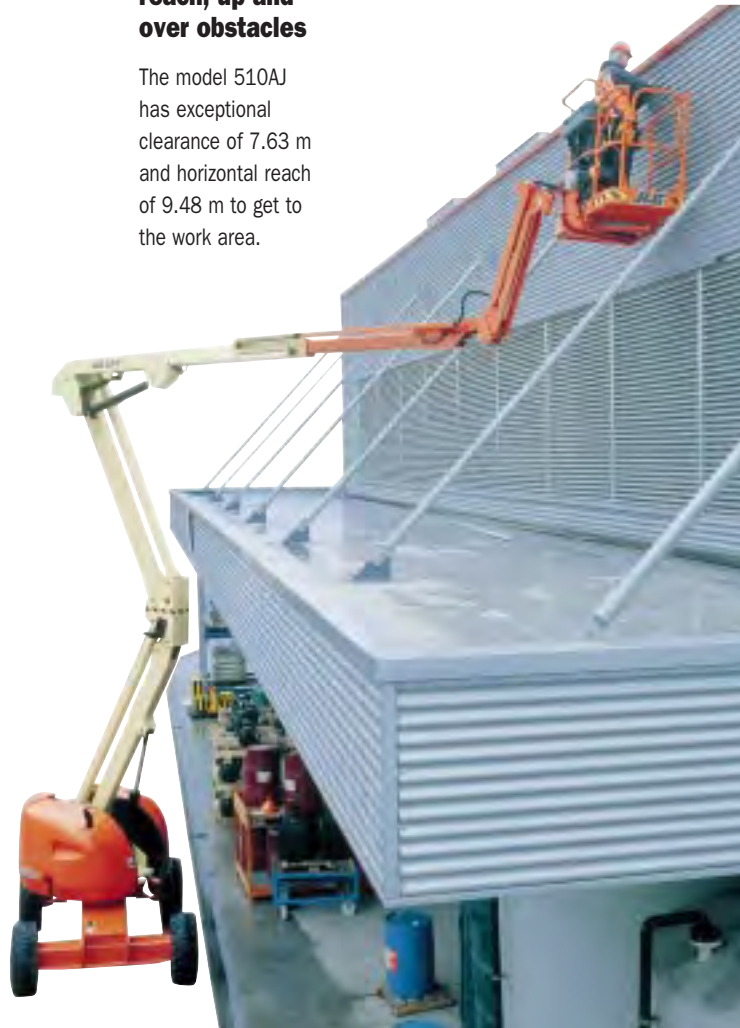


SkyWelder™ Package

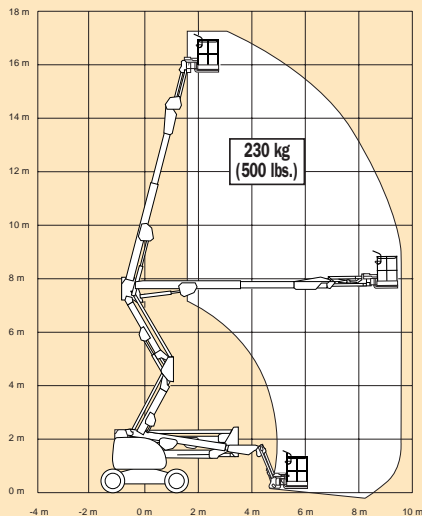
The JLG SkyWelder™ package – a 250 amp welder in the platform (powered by the integrated SkyPower™ generator). The package includes a Miller® welding unit that provides a 5 to 250 amp range and can be used for stick and TIG welding applications. Power runs through the boom's power track from the SkyPower™ generator. This enables simultaneous use of power tools such as grinders for use when welding.

Outstanding reach, up and over obstacles

The model 510AJ has exceptional clearance of 7.63 m and horizontal reach of 9.48 m to get to the work area.

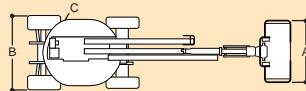
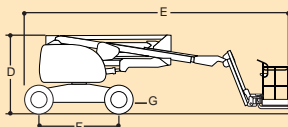


JLG MODEL 510AJ



REACH SPECIFICATIONS

Platform Height	15.81 m (51 ft 10 in.)
Horizontal Reach	9.48 m (31 ft. 1.5 in.)
Up and Over Height	7.63 m (25 ft. 0.5 in.)
Turntable Rotation (non continuous)	360°
Platform Capacity – Unrestricted	230 kg (500 lbs.)
Platform Rotator (Hydraulic)	180°
Jib – Overall Length	1.24 m (4 ft. 1 in.)
Jib – Range of articulation	145° (+75°/-70°)



DIMENSIONAL DATA

A. Platform Size	0.76 m x 1.83 m (30 in. x 72 in.)
B. Overall Width with 12 x 16.5 tyres	2.26 m (7 ft. 5 in.)
Overall Width with 33/1550 x 16.5 tyres	2.34 m (7 ft. 8 in.)
C. Tailswing (working condition)	Zero
D. Stowed Height	2.26 m (7 ft. 5 in.)
E. Stowed Length	7.68 m (25 ft. 2.5 in.)
F. Wheelbase	2.34 m (7 ft. 8 in.)
G. Ground Clearance	0.36 m (1 ft. 2 in.)
Gross Vehicle Weight*	7,300 kg (16,100 lbs)
Maximum Ground Bearing Pressure	3.37 kg/cm ² (47 psi)
Drive Speed	7.2 km/h (4.5 mph)
Gradeability	45%

CHASSIS

Tyres - Standard	Foam Filled 12 x 16.5
Tyres - Optional	Foam Filled 33/1550 x 16.5
Axle Oscillation (standard)	0.10 m (4 in.)
Turning Radius – Inside	2.00 m (6 ft 7 in.)
Turning Radius – Outside	5.00 m (16 ft 5 in.)

POWER SOURCE

Diesel Engine (Deutz F3M1011)	35kW
Fuel Tank Capacity	62.5 L (16.5 gal.)
Hydraulic Reservoir	113.6 L (30 gal.)
Auxiliary Power	12V DC

Standard Features

0.76 m x 1.83 m (30 in. x 72 in.) low mount side entry platform, Side entry with inward swing gate, Multiple function operation, Full proportional drive/steer joystick control, Full proportional main boom and swing joystick control, Variable speed dial control for lower boom, telescope and platform rotate, 1.24 m (4 ft. 11 in.) articulating jib, 180 degree powered platform rotator, Platform console machine status light panel¹, AC power cable to platform, Deutz F3M1011 diesel engine, Engine distress warning system², Gull-wing turntable hoods, Swing-out engine tray, Spark arresting muffler, Control ADE™ – Advanced Design Electronics System, Hydrostatic transmission, Four wheel drive, Horn, 4 degree tilt alarm and indicator light, Rim protector foam filled lug tread tyres 12 x 16.5, Oscillating axle, Lifting/tie down lugs, Hour meter, Ground control selector switch with key lock, Noise reduction package, Platform tool tray, 12V-DC auxiliary power.

Available Options

0.76 m x 1.52 m (30 in. x 60 in.) low mount side entry platform, 0.76 m x 1.22 m (30 in. x 48 in.) low mount side entry platform, 12 mm air line to platform, Boom wipers, 33/1550 x 16.5 wide foam filled tyres, On-board 2500W generator, SkyPower™ Package 7,500 watt on-board generator, SkyWelder™ Package 250 amp welder in the platform³, Travel alarm, All motion alarm, Platform work lights, Head and tail lights, Nite-Bright™ accessory package (consists of six 40 watt lights), Flashing amber beacon, Hostile environment package⁴, Catalytic Purifier Muffler, Storage tray.

¹ Provides indicator lights at platform control console for system distress, low fuel, 4 degree tilt light, and foot switch status.

² Low oil pressure and high coolant temperature alarms.

³ Available when integrated with the SkyPower™ package

⁴ Includes console cover, boom wipers and cylinder bellows.

*Certain options or country standards will increase weight.

Specifications may change to meet country standards or with the addition of optional equipment.



Ground control console

Console is conveniently located at eye level and features a three-dimensional decal. A detailed light panel provides status of specified machine conditions, including various self-diagnostic maintenance sensors.



Platform Controls

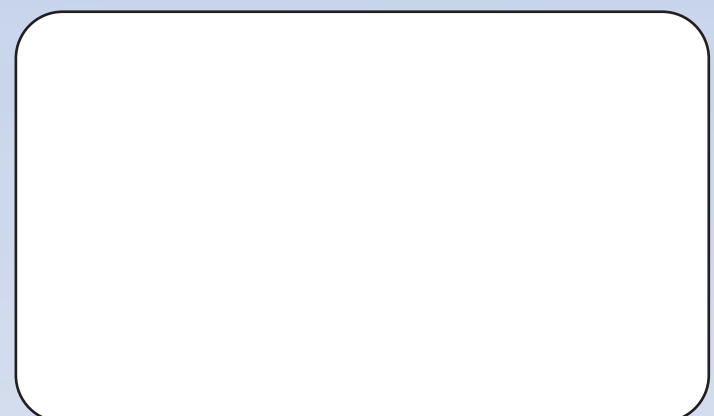
Features fully proportional multi-function control capability providing optimum travel control and more efficient positioning to the elevated work location.

A console light panel informs the operator of various condition sensors such as fuel level, engine distress, and control enable status. Easy-to-replace console decals feature large, colourful, easy-to-identify graphical symbols.

The JLG “1 & 5” Warranty

JLG Industries, Inc. backs our products with our exclusive “1 & 5” Warranty. We provide coverage on all products for one (1) full year, and cover all specified major structural components for five (5) years. Due to continuous product improvements, we reserve the right to make specification and/or equipment changes without prior notification.

This machine meets or exceeds applicable Regulations as originally manufactured for intended applications.



JLG Industries, Inc.

Kilmartin Place, Tannochside Park,
Uddingston, G71 5PH, Scotland,
United Kingdom

Tel: +44 (0) 1698 811005

Fax: +44 (0) 1698 811055

e-mail address: europe@jlg.com



S4390/5290RT

ROUGH TERRAIN SCISSORS



- Diesel-powered rough terrain scissor lifts
- Large work area with twin roll-out deck extensions
- Powerful 4x4 drive
- Superb rough terrain capabilities
- Ideal for construction applications

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ROUGH TERRAIN SCISSORS

S4390/5290RT

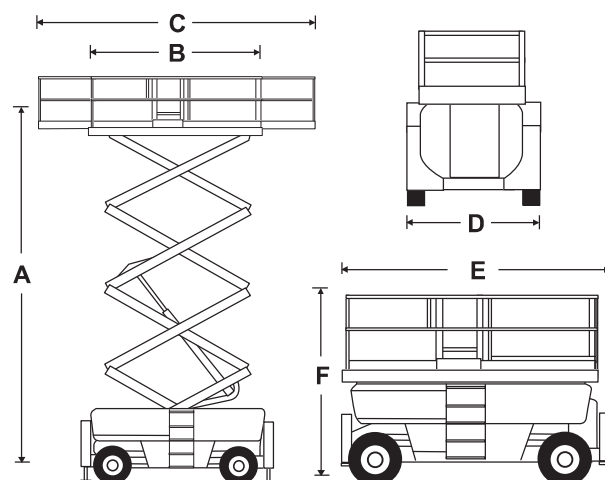
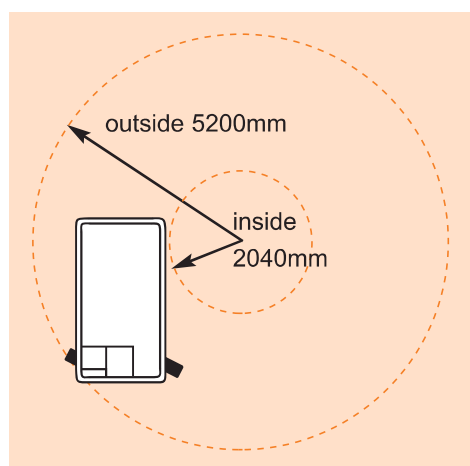
DIMENSIONS	S4390RT	S5290RT
Max. working height	15.0m	18.0m
Max. platform height (A)	13.0m	16.0m
Platform size (stowed)(B)	1.83m x 4.0m	1.83m x 4.0m
Platform size (extended)(C)	1.83m x 6.60m	1.83m x 6.60m
Deck extension (each)	1.30m	1.30m
Overall width (D)	2.27m	2.27m
Overall length (E)	4.88m	4.88m
Stowed height (F)	2.98m	3.15m
Min. height (guardrails folded)	2.25m	2.45m
Ground clearance	220mm	220mm

PERFORMANCE		
Platform capacity (SWL)	680kg	680kg
Max. drive height	9.0m	9.0m
Max. drive speed (stowed)	6.0km/h	6.0km/h
Max. drive speed (elevated)	1.1km/h	1.1km/h
Raise/lower time	94/77 sec	114/94 sec
Gradeability	50%	40%
Max. outrigger levelling, front to rear	7°	7°
Max. outrigger levelling, side to side	12°	12°
Inside turning radius	2.04m	2.04m
Outside turning radius	5.20m	5.20m
Tyres	33 x 12.2 high grip, solid cushion	
Controls	Proportional joystick	
Drive system	4 wheel drive	

POWER		
Power source	Perkins 404D22 diesel 38kW	
Auxiliary power unit	12V DC	12V DC

WEIGHT		
Gross weight	7,800kg	8,700kg

TURNING RADIUS



STANDARD FEATURES

- Twin manual deck extensions
- Twin self-closing platform gates
- 4 manually operated hydraulic outriggers
- Oscillating axle
- Slide-out engine tray
- Tilt alarm and cut-out
- Horn
- Hour meter
- Power line to platform (no sockets)
- DC emergency operation
- Integrated diagnostics
- Platform overload protection
- CE approved

OPTIONS

- Special paint colours
- Auto-level hydraulic outriggers
- Flashing amber beacon
- Platform work lights
- Hydraulic generator
- Hydraulic oil cooler
- Hydraulic welder
- Compressed air line to platform

snorkel

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