

Obtrusive Light - Compliance Report

AS 4282-1997, Post-Curfew, Residential - Dark Surrounds
Filename: Mark & Julz Caldwell venue area lighting
26/06/2018 9:41:57 AM

Illuminance

Maximum Allowable Value: 1 Lux

Calculations Tested (2):

Calculation Label	Test Results	Max. Illum.
Pre Curfew Vertical Illuminance_Ill_Seg1	PASS	0.2
Curfew Vert Illum and Intensity_Ill_Seg1	PASS	0.2

Luminous Intensity (Cd) At Vertical Planes

Maximum Allowable Value: 500 Cd

Calculations Tested (1):

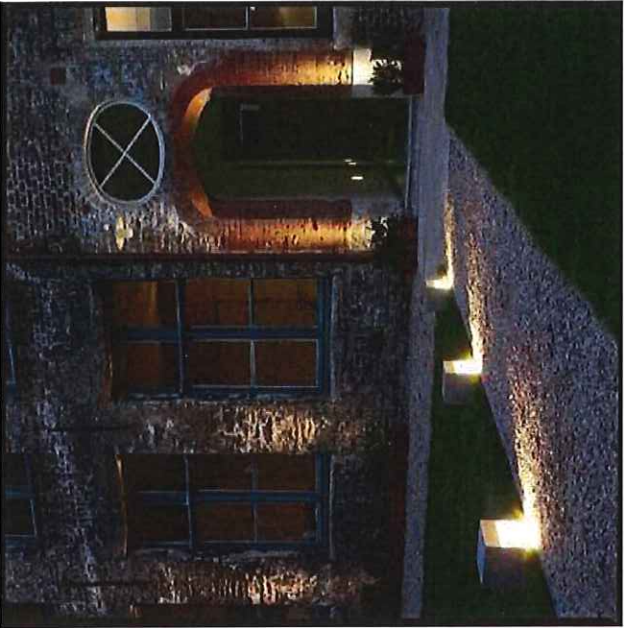
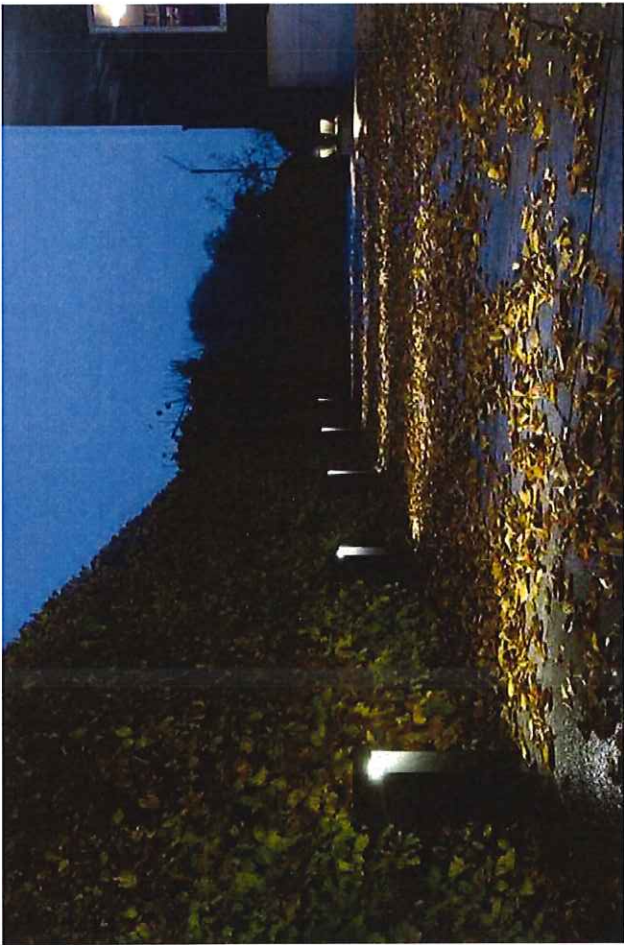
Calculation Label	Test Results
Curfew Vert Illum and Intensity_Cd_Seg1	PASS

Threshold Increment (TI)

Maximum Allowable Value: 20 %

Calculations Tested (2):

Calculation Label	Adaptation Luminance	Test Results
Threshold Increment EN	10	PASS
Threshold Increment ES	10	PASS



St Patricks Basilica

ACTIVE LIGHTING DESIGN 105 Cumberland St Dunedin NEW ZEALAND DDI: +64 3 777 3323 ME: +64 021 377 161 estanding@active.nz	Mark & Julz Caldwell venue area lighting.AGI		www.active.nz		REVISIONS	DATE	DRAWING NUMBER
	CLIENTS NAME Caldwell	active ELECTRICAL SUPPLIERS LTD		www.active.nz	1	26/06/2018	CS- 105070

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Luminaire Schedule

Symbol	Qty	Label	Total Lamp Lumens	LLF	Description
	33	A	564	1.000	Active 6w bollard 300mm high 564 lumens 3000K
	3	FL	N.A.	1.000	Pierlite Domain 97w LED Pole Mount Flood, Asymmetric, 4000K, 11744 Lumens, Black
	3	FL1	N.A.	1.000	Pierlite Domain 97w LED Wall Mounted Flood, Asymmetric, 4000K, 11744 Lumens, Black

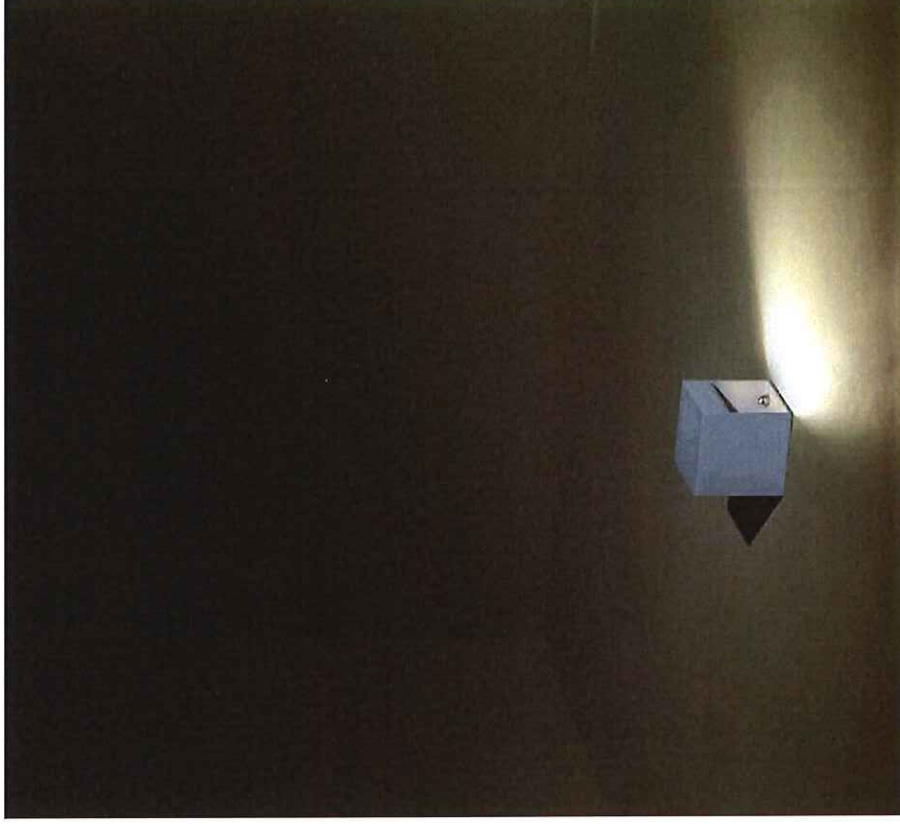
NZBC F6 Compliance Schedule- Illuminance

Calculation Summary

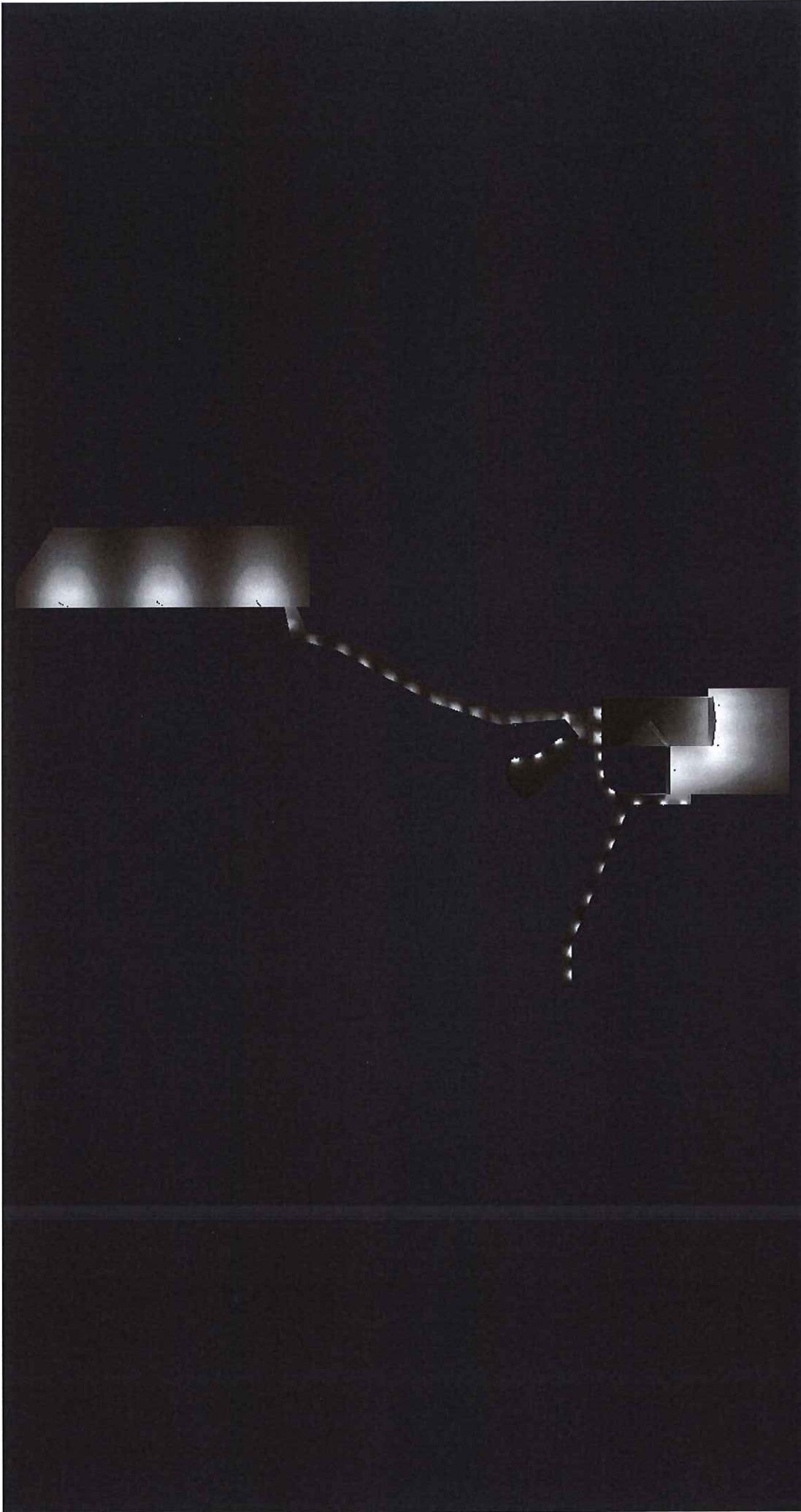
Label	CalcType	Units	Avg	Max
Bottom Carpark_Planar	Illuminance	Lux	7.66	260.4
Carpark_Planar	Illuminance	Lux	27.80	108.6
Ceremony site_Planar	Illuminance	Lux	54.94	132.4
Curfew Vert Illum and Intensity_	Obtrusive Light	N.A.	165.66	190
Curfew Vert Illum and Intensity_	Obtrusive Light	Lux	0.09	0.2
Front of venue path_1_Planar	Illuminance	Lux	41.82	575.5
Path to bus park_Planar	Illuminance	Lux	12.32	170.6
Path to carpark_Planar	Illuminance	Lux	20.04	623.4
Pre Curfew Vertical Illuminance_	Obtrusive Light	Lux	0.08	0.2
Threshold Increment EN	Obtrusive Light	%	0.75	3
Threshold Increment ES	Obtrusive Light	%	0.08	1



Peirlite Domain 100w LED Flood



Active 6w bollard



All fitting selected to create as little light spill as possible

ACTIVE LIGHTING DESIGN
105 Cumberland St
Dunedin
NEW ZEALAND
DDI: +64 3 777 3323
M: +64 021 377 161
cstanding@active.nz

Mark & Julz Caldwell venue area lighting-AGI

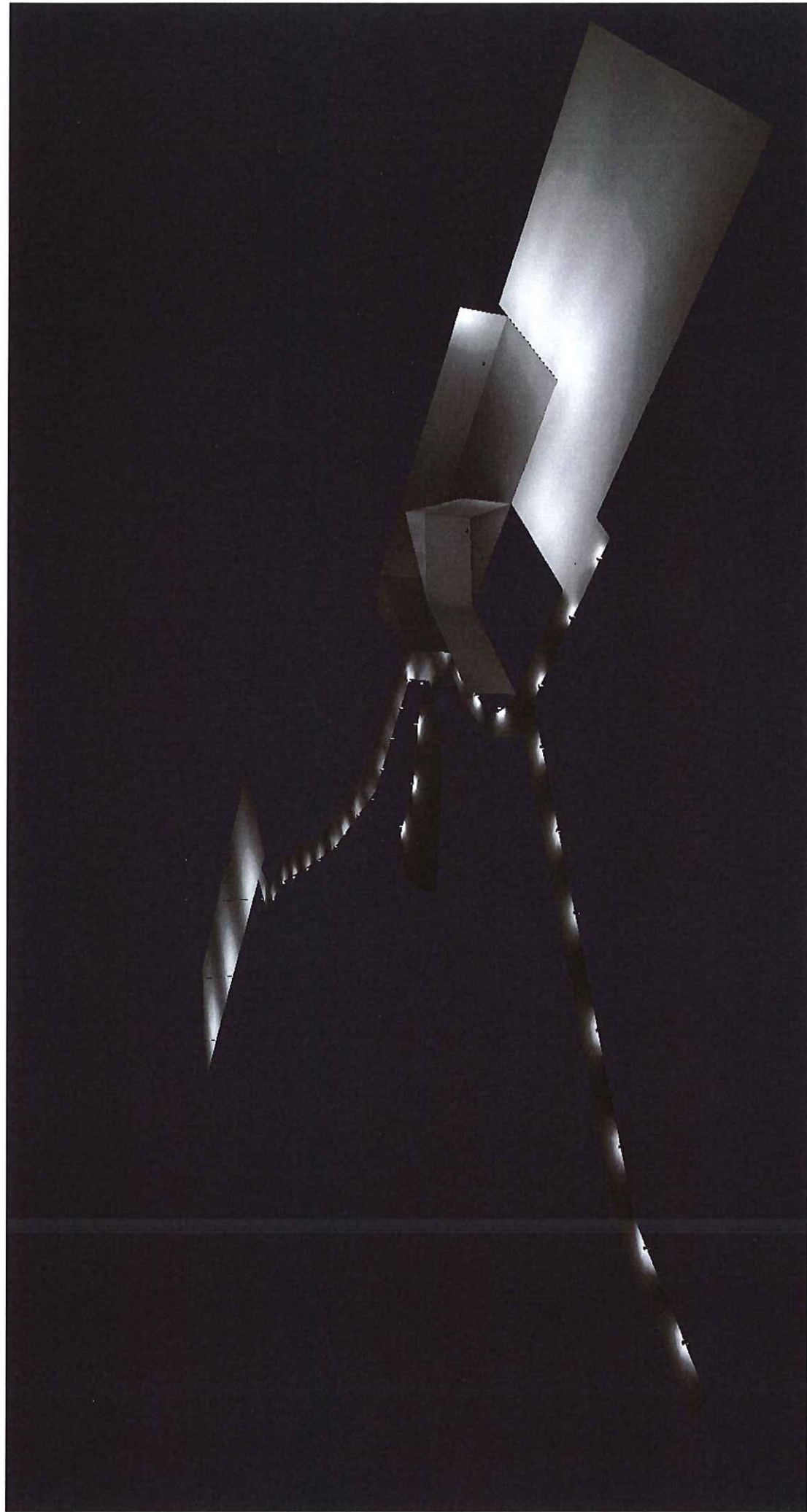
CLIENTS NAME Caldwell



REVISIONS

NO	DATE	DRAWING NUMBER
1	26/06/2018	CS- 105070

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ACTIVE LIGHTING DESIGN
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NE: +64 021 377 161
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Mark & Julz Caldwell venue area lighting-AGI

CLIENTS NAME Caldwell



REVISIONS

NO	DATE	DRAWING NUMBER
I	26/06/2018	CS-105070

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it crosses

FL MH: 5

FL MH: 5

FL MH: 5

FL MH: 5

Calculation point wall 35m high

A line from the top of the Luminaire extends out at 20 degrees, at the point it crosses the boundary 100 meters from luminaire the height is 35 meters

FL MH: 5

FL MH: 5

Calculation point wall 35m high

ACTIVE LIGHTING DESIGN
105 Cumberland St
NEW ZEALAND
DOB: +64 3 777 1323
MC: +64 3 777 161
estanding@active.nz

Mark & Julz Caldwell venue area lighting-AGI

CLIENTS NAME Caldwell

active
ELECTRICAL SUPPLIERS LTD

www.gosactive.net.nz

REVISIONS

DATE 26/06/2018

DRAWING NUMBER CS-105070

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Filename: Mark & Julz Caldwell venue area lighting
26/06/2018 9:41:57 AM

Illuminance

Maximum Allowable Value: 1 Lux

Calculations Tested (2):

Calculation Label	Test Results	Max. Illum.
Pre Curfew Vertical Illuminance_III_Seg1	PASS	0.2
Curfew Vert Illum and Intensity_III_Seg1	PASS	0.2

Luminous Intensity (Cd) At Vertical Planes

Maximum Allowable Value: 500 Cd

Calculations Tested (1):

Calculation Label	Test Results
Curfew Vert Illum and Intensity_Cd_Seg1	PASS

Threshold Increment (TI)

Maximum Allowable Value: 20 %

Calculations Tested (2):

Calculation Label	Adaptation Luminance	Test Results
Threshold Increment EN	10	PASS
Threshold Increment ES	10	PASS

Obtrusive Light - Compliance Report

AS 4282-1997, Pre-Curfew, Residential - Dark Surrounds
Filename: Mark & Julz Caldwell venue area lighting
26/06/2018 9:43:31 AM

Illuminance

Maximum Allowable Value: 10 Lux

Calculations Tested (2):

Calculation Label	Test Results	Max. Illum.
Pre Curfew Vertical Illuminance_III_Seg1	PASS	0.2
Curfew Vert Illum and Intensity_III_Seg1	PASS	0.2

Luminous Intensity (Cd) Per Luminaire

Maximum Allowable Value: 7500 Cd
Control Angle: 83 Degrees

Luminaire Locations Tested (39)

Test Results: **PASS**

Threshold Increment (TI)

Maximum Allowable Value: 20 %

Calculations Tested (2):

Calculation Label	Adaptation Luminance	Test Results
Threshold Increment EN	10	PASS
Threshold Increment ES	10	PASS

Exterior Obtrusive Light: Using AGI32 to Calculate and Show Compliance with AS 4282-1997

Australian Standard 4282-1997 is officially titled "Control of the Obtrusive Effects of Outdoor Lighting." In this segment, we will examine how to use AGI32 to evaluate exterior lighting projects for spill light and luminaire glare according to the requirements of AS 4282.

AS 4282-1997 aims to mitigate three general problems caused by outdoor nighttime lighting:

- Spill light: light that intrudes on the property of others, particularly that which enters through windows of neighboring buildings
- Discomfort glare or disability glare caused by excessive luminaire brightness at normal viewing angles
- Sky glow

The design parameters that are controlled are vertical illuminance (Ev) at the property boundary (direct component only), Luminous Intensity (I) emitted by luminaires in the control direction, and Threshold Increment (TI) if near a road. Permissible values depend on the time of night: pre-curfew or curfewed hours. Reflected light is not included in the calculations.

Let's look at how to use AGI32 to determine whether our site lighting will meet the AS 4282 criteria.

Let's assume that our site is in a commercial area. AS 4282 states that the lighting must not exceed these values:

- Vertical illuminance
 - Pre-Curfew: 25 lux
 - Curfewed hours: 4 lux
- Luminous Intensity
 - Pre-curfew (assuming large area, Level 1 control): 7500 cd
 - Curfewed hours: 2500 cd
- Threshold Increment: 20% based on adaptation luminance of 10 cd/m²

Open existing AGI file AS4282.agi.

The illuminance calculations for the parking lot have been performed, saved, and then turned off in Project Manager, to keep the project "clean" for the obtrusive light analysis.

The neighboring building and the street will be used in the Vertical Illuminance and Threshold Increment calculations, respectively.

Because the Pre-curfew and Curfewed Hours requirements are different, a separate analysis and compliance test will be required for each. We will begin with the Pre-curfew analysis.

Pre-Curfew: Vertical Illuminance and Luminaire Intensity

The easiest way to show compliance with the vertical illuminance requirement is to create a series of vertical-illuminance grids that run along all or part of the property line, and their height will be where a line between the nearest luminaire and the highest relevant point of the adjacent properties (i.e., the height of the highest window)

Threshold Increment

Threshold Increment (TI) is an indication of luminaire glare. Is the luminaire excessively bright for its environment? From AS 4282-1997:

- TI is the measure of disability glare expressed as the percentage increase in contrast required between an object and its background for it to be seen equally well with a source of glare present.
- Higher values of TI correspond to greater disability glare.
- The contributions from all luminaires that lie within 1.5 to 60 degrees from the observer's line of sight are summed.
- Limits apply at all times where users of transport systems are subject to a reduction in the ability to see essential information.
- Values given are for relevant positions and viewing directions in the path of travel. [Spacing between points is not specified; we will use 1 meter.]

Melissa Shipman

From: Melissa Shipman
Sent: Tuesday, 18 September 2018 11:48 a.m.
To: Allan Cubitt
Subject: LUC-2018-219 - 261 Tomahawk Road - Affected Parties

Allan,

I revisited the property today to review the affected party status of 275 and 277 Tomahawk Road. I am now satisfied that both of those parties are not adversely affected by the proposal and their written approvals are no longer required.

Regards,

Melissa Shipman
Planner, City Planning
Dunedin City Council

50 The Octagon, Dunedin; P O Box 5045, Moray Place, Dunedin 9058, New Zealand
Telephone: 03 474 3448; Fax: 03 474 3451
Email: melissa.shipman@dcc.govt.nz



 Please consider the environment before printing this e-mail

For the attention of: City Planning, Dunedin City Council

AFFECTED PERSON(S) CONSENT FORM

To: Resource Consents Manager
Dunedin City Council
PO Box 5045
Dunedin

I/We: Charlotte & Todd Robertson

Being the

☒ Owner ☐ Owner and Occupier ☐ Occupier ☐ Statutory Authority

Of the property situated: 263

(Address and/or legal description of your property)

Have read and understood the information provided and consent to the proposal by:

Lochend Limited, of 261 Tomahawk Road, Ocean Grove, Dunedin

For:

For land use consent to use of the property at 261 Tomahawk Road as a venue for weddings or other special occasions. The proposal includes the use of the existing woolshed building, along with associated outdoor areas, for functions. Areas will be set aside for carparking and coach parking as detailed on the attached plans. Functions will be restricted to 8 events per calendar month for certainty purposes. Hours of 10am to 12 midnight, with all guests off site by 1am the next day at the latest, are proposed as the maximum duration for a function

*The property is zoned **Rural** in the Dunedin City District Plan. The site is located within "Peninsula Cost Outstanding Natural Landscape". The proposal is defined as a Rural Tourist activity, which is a controlled activity. Consent cannot be refused to controlled activities but Council can impose conditions in relation*

- (a) The scale of the activity.*
- (b) Vehicle access and parking.*
- (c) Signs.*
- (d) The size and location of structures.*
- (e) The performance standards of the Environmental Issues Section.*

On the following property:

261 Tomahawk Road, Ocean Grove, Dunedin

As outlined in the application submitted and on the associated plans signed by me/us.

Signed: *CHR* *MR*

Date: 19/9/18

Telephone: 0221723727

If you have any queries regarding the Resource Consent process and the role and rights of affected person(s), please contact the City Planning Department, Dunedin City Council, before you complete and sign this form and the associated plans.

6. Conclusion

We are confident that any adverse effects arising from this proposal will be less than minor and that the proposal will, overall, have a positive social and economic impact on the community. The proposal will see an existing rural character building renovated and made available to general public to enjoy the outstanding natural features of the site while celebrating the special occasions in their life. No persons will be adversely affected by the proposal and as a controlled activity, Council can grant consent without notification of any form.

Todd & Charlotte
Robertson

Clair yll

For the attention of: City Planning, Dunedin City Council

AFFECTED PERSON(S) CONSENT FORM

To: Resource Consents Manager
Dunedin City Council
PO Box 5045
Dunedin

I/We: J. R. Campbell & S. C. Campbell

Being the

☒ Owner ☒ Owner and Occupier ☐ Occupier ☐ Statutory Authority

Of the property situated: 271 Tomahawk Rd Ocean Grove
Dunedin 9013
(Address and/or legal description of your property)

Have read and understood the information provided and consent to the proposal by:

Lochend Limited, of 261 Tomahawk Road, Ocean Grove, Dunedin

For:

For land use consent to use of the property at 261 Tomahawk Road as a venue for weddings or other special occasions. The proposal includes the use of the existing woolshed building, along with associated outdoor areas, for functions. Areas will be set aside for carparking and coach parking as detailed on the attached plans. Functions will be restricted to 8 events per calendar month for certainty purposes. Hours of 10am to 12 midnight, with all guests off site by 1am the next day at the latest, are proposed as the maximum duration for a function

The property is zoned **Rural** in the Dunedin City District Plan. The site is located within "Peninsula Coast Outstanding Natural Landscape". The proposal is defined as a Rural Tourist activity, which is a controlled activity. Consent cannot be refused to controlled activities but Council can impose conditions in relation

- (a) The scale of the activity.
- (b) Vehicle access and parking.
- (c) Signs.
- (d) The size and location of structures.
- (e) The performance standards of the Environmental Issues Section.

On the following property:

261 Tomahawk Road, Ocean Grove, Dunedin

As outlined in the application submitted and on the associated plans signed by me/us.

Signed: J. R. Campbell S. C. Campbell

Date: 22.09.2018

Telephone: 64543816

If you have any queries regarding the Resource Consent process and the role and rights of affected person(s), please contact the City Planning Department, Dunedin City Council, before you complete and sign this form and the associated plans.

6. Conclusion

We are confident that any adverse effects arising from this proposal will be less than minor and that the proposal will, overall, have a positive social and economic impact on the community. The proposal will see an existing rural character building renovated and made available to general public to enjoy the outstanding natural features of the site while celebrating the special occasions in their life. No persons will be adversely affected by the proposal and as a controlled activity, Council can grant consent without notification of any form.

John Campbell
J.R. Campbell

Sally Campbell
S.C Campbell

271 Tomahawk Rd.
Ocean Grove
Dunedin
9013.

4543816.

For the attention of: City Planning, Dunedin City Council

AFFECTED PERSON(S) CONSENT FORM

To: Resource Consents Manager
Dunedin City Council
PO Box 5045
Dunedin

I/We: PAUL NOOKES

Being the

☐ Owner ☒ Owner and Occupier ☐ Occupier ☐ Statutory Authority

Of the property situated: 273 TOMAHAWK ROAD

OCEAN GROVE
(Address and/or legal description of your property)

Have read and understood the information provided and consent to the proposal by:

Lochend Limited, of 261 Tomahawk Road, Ocean Grove, Dunedin

For:

For land use consent to use of the property at 261 Tomahawk Road as a venue for weddings or other special occasions. The proposal includes the use of the existing woolshed building, along with associated outdoor areas, for functions. Areas will be set aside for carparking and coach parking as detailed on the attached plans. Functions will be restricted to 8 events per calendar month for certainty purposes. Hours of 10am to 12 midnight, with all guests off site by 1am the next day at the latest, are proposed as the maximum duration for a function

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- (a) The scale of the activity.*
- (b) Vehicle access and parking.*
- (c) Signs.*
- (d) The size and location of structures.*
- (e) The performance standards of the Environmental Issues Section.*

On the following property:

261 Tomahawk Road, Ocean Grove, Dunedin

As outlined in the application submitted and on the associated plans signed by me/us.

Signed: *Paul Nokes*

Date: 20-9-18

Telephone: 03-4543736

If you have any queries regarding the Resource Consent process and the role and rights of affected person(s), please contact the City Planning Department, Dunedin City Council, before you complete and sign this form and the associated plans.

6. **Conclusion**

We are confident that any adverse effects arising from this proposal will be less than minor and that the proposal will, overall, have a positive social and economic impact on the community. The proposal will see an existing rural character building renovated and made available to general public to enjoy the outstanding natural features of the site while celebrating the special occasions in their life. No persons will be adversely affected by the proposal and as a controlled activity, Council can grant consent without notification of any form.

A handwritten signature in black ink, consisting of a stylized 'A' followed by a long, sweeping horizontal stroke.

For the attention of: City Planning, Dunedin City Council

AFFECTED PERSON(S) CONSENT FORM

To: Resource Consents Manager
Dunedin City Council
PO Box 5045
Dunedin

I/We: Stan + Trish Walters

Being the

☐ Owner ☐ Owner and Occupier ☒ Occupier ☐ Statutory Authority

Of the property situated: 269 Tomahawk Rd

(Address and/or legal description of your property)

Have read and understood the information provided and consent to the proposal by:

Lochend Limited, of 261 Tomahawk Road, Ocean Grove, Dunedin

For:

For land use consent to use of the property at 261 Tomahawk Road as a venue for weddings or other special occasions. The proposal includes the use of the existing woolshed building, along with associated outdoor areas, for functions. Areas will be set aside for carparking and coach parking as detailed on the attached plans. Functions will be restricted to 8 events per calendar month for certainty purposes. Hours of 10am to 12 midnight, with all guests off site by 1am the next day at the latest, are proposed as the maximum duration for a function

The property is zoned **Rural** in the Dunedin City District Plan. The site is located within "Peninsula Coast Outstanding Natural Landscape". The proposal is defined as a Rural Tourist activity, which is a controlled activity. Consent cannot be refused to controlled activities but Council can impose conditions in relation

- (a) The scale of the activity.
- (b) Vehicle access and parking.
- (c) Signs.
- (d) The size and location of structures.
- (e) The performance standards of the Environmental Issues Section.

On the following property:

261 Tomahawk Road, Ocean Grove, Dunedin

As outlined in the application submitted and on the associated plans signed by me/us.

Signed: M. Watt JW

Date: 20th Sept 2018

Telephone: 4545315

If you have any queries regarding the Resource Consent process and the role and rights of affected person(s), please contact the City Planning Department, Dunedin City Council, before you complete and sign this form and the associated plans.

APPLICATION FOR LAND USE CONSENT

Lochend Limited

**261 TOMAHAWK ROAD
OCEAN GROVE**



Prepared By

Cubitt Consulting Ltd

April 2018

[Signature]

[Signature]

For the attention of: City Planning, Dunedin City Council

AFFECTED PERSON(S) CONSENT FORM

To: Resource Consents Manager
Dunedin City Council
PO Box 5045
Dunedin

We: *Colin & Diane R Henderson (Trusts)*

Being the

☒ Owner ☐ Owner and Occupier ☐ Occupier ☐ Statutory Authority

Of the property situated: *261 Tomahawk Road*

(Address and/or legal description of your property)

Have read and understood the information provided and consent to the proposal by:

Lochend Limited, of 261 Tomahawk Road, Ocean Grove, Dunedin

For:

For land use consent to use of the property at 261 Tomahawk Road as a venue for weddings or other special occasions. The proposal includes the use of the existing woolshed building, along with associated outdoor areas, for functions. Areas will be set aside for carparking and coach parking as detailed on the attached plans. Functions will be restricted to 8 events per calendar month for certainty purposes. Hours of 10am to 12 midnight, with all guests off site by 1am the next day at the latest, are proposed as the maximum duration for a function

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- (c) Signs.*
- (d) The size and location of structures.*
- (e) The performance standards of the Environmental Issues Section.*

On the following property:

261 Tomahawk Road, Ocean Grove, Dunedin

As outlined in the application submitted and on the associated plans signed by me/us.

Signed: *G. Henderson & D. Henderson*

Date: *27th September 2018*

Telephone: *03 465 1901*

If you have any queries regarding the Resource Consent process and the role and rights of affected person(s), please contact the City Planning Department, Dunedin City Council, before you complete and sign this form and the associated plans.

APPLICATION FOR LAND USE CONSENT

Lochend Limited

261 TOMAHAWK ROAD
OCEAN GROVE



Prepared By

Cubitt Consulting Ltd

April 2018

A. J. Henderson.

D. L. Henderson.