### Initial Evaluation Procedure (IEP) Assessment - Waikato District Council

Page 1

WARNING!! This initial seismic evaluation process has been carried out solely as a screening tool in terms of the Waikato District Courcil's (WDC's) Earthquake-Prone, Dangerous and Insantitary Buildings
Policy 2010 (Policy). This initial seismic assessment has been carried in accordance with the New Zealand Society for Earthquake Engineering document 'Recommendations for the Assessment and Improvement of
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Street Number & Name:	Gallileo St	Job No.:	5640440
AKA:	Unique Number:35-38 and 40	By:	Beca
Name of building:	WDC offices	Date:	26/04/2016
City:	Ngaruawahia, Waikato	Revision No.:	0

# Table IEP-1 Initial Evaluation Procedure Step 1

## Step 1 - General Information

1.4 Note information sources

1.1 Photos (attach sufficient to describe building)



### NOTE: THERE ARE MORE PHOTOS ON PAGE 1a ATTACHED



## 1.3 List relevant features (Note: only 10 lines of text will print in this box. If further text required use Page 1a)

Tick as appropriate

-Construction date: 2008 from WDC spreadsheet
-Light weight construction
-1 storey
-Flat ground

	Visual Inspection of Exterior Visual Inspection of Interior Drawings (note type)	Specifications Geotechnical Reports Other (list)	
٧	WDC summary spreadsheet		
•••			

Initial Evalu	ation Procedu	re (IEP) Assessment - Waikato D	District Council	Page 2
Street Number	& Name:	Gallileo St	Job	No.: 5640440
AKA:		Unique Number:35-38 and 40	Ву:	Beca
Name of buildi	ing:	WDC offices	Date	e: 26/04/2016
City:	_	Ngaruawahia, Waikato	Rev	ision No.: 0
Table IEP-2	Initial Evalu	uation Procedure Step 2		
Stop 2 - Dotor	mination of (%N	-		
-	6) for particular buildin	, -		
	nominal (%NBS) =	-	Longitudinal	Transverse
	(70.120)	(70.02-0) Holli	Longituaniai	Transverse
	trengthening Data		_	_
lick if buil	lding is known to have	e been strengthened in this direction		
If strength	nened, enter percenta	ge of code the building has been strengthened t	N/A	N/A
h) Vaar of Dag	-i(Ctthi	Duilding Tong and Calamia Zama		
b) fear of Des	sign/strengtnening,	Building Type and Seismic Zone	Pre 1935 🔿	Pre 1935 🔿
			1935-1965	1935-1965 🔘
			1965-1976 🔿	1965-1976
			1976-1984 🔘	1976-1984 🔘
			1984-1992 🔘	1984-1992 🔘
			1992-2004 🔘	1992-2004 🔘
			2004-2011 💿	2004-2011 <b>③</b>
			Post Aug 2011 🔘	Post Aug 2011 🔘
		Building Type:	▽	▼
		Seismic Zone:		▼
a) Sail Tuna				
c) Soil Type	From NZS1170.5:20	04, CI 3.1.3 :	D Soft Soil ▼	D Soft Soil
	From NZS4203:1993 (for 1992 to 2004 ar		Flexible	Flexible
d) Estimate P		,		
Comment:			h <sub>n</sub> = 25	25 m
			A <sub>c</sub> = 1.00	1.00 m <sup>2</sup>
	esisting Concrete France		0	0
	esisting Steel Frames Ily Braced Steel Fram		ŏ	ŏ
	rame Structures:	$T = \max\{0.06h_n^{0.75}, 0.4\}$	0	ŏ
	Shear Walls	$T = \max\{0.09h_n^{0.75}/A_c^{0.5}, 0.4\}$	Õ	000
	hear Walls:	<i>T</i> ≤ 0.4sec	<b>○</b> •	° •
Oser Delin	ed (input Period):  Where h = he	ight in metres from the base of the structure to the		
		mic weight or mass.	T: 0.40	0.40
e) Factor A:	Strengthening factor det if not strengthened)	ermined using result from (a) above (set to 1.0	Factor A: 1.00	1.00
f) Factor B:	Determined from NZSEE results (a) to (e) above	E Guidelines Figure 3A.1 using	Factor B: 1.00	1.00
g) Factor C:	For reinforced concrete I C = 1.2, otherwise take	ouildings designed between 1976-84 Factor as 1.0.	Factor C: 1.00	1.00
h) Factor D:		prior to 1935 Factor D = 0.8 except for Wellington taken as 1, otherwise take as 1.0.	Factor D: 1.00	1.00
(%NBS) <sub>nom</sub> =	= AxBxCxD	C	%NBS) <sub>nom</sub> 100%	100%
				. <u></u>

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treet Number & Name: KA:	Gallileo St Unique Numb	er:35-38 and	Job No 40 By:	.: 5640440 Beca
ame of building:	WDC offices		Date:	26/04/2016
ity:	Ngaruawahia,	. Waikato	Revision	
able IEP-2 Initial Ev				
.2 Near Fault Scaling Factor, If $T \le 1.5$ sec, Factor E = 1				
			<u>Longitudinal</u>	<u>Transverse</u>
a) Near Fault Factor, N(T,D) (from NZS1170.5:2004, Cl 3.1.6)			N(T,D): 1	1
b) Factor E		= 1/N(T,D)	Factor E: 1.00	1.00
.3 Hazard Scaling Factor, Fac a) Hazard Factor, Z, for site	ctor F			
Locatio	n: Ngaruawahia	▼	Refer right for user-defined locations	
	Z = 0.15	(from NZS1170.	5:2004, Table 3.3)	
$Z_{199}$			Zone Factor from accompanying Figure 3.5(b))	
Z <sub>200</sub> .	0.15	(from NZS1170.	5:2004, Table 3.3)	
b) Factor F				
For pre 1992 For 1992-2011	=	1/ <i>Z</i> Z <sub>1992</sub> /Z		
For 1992-2011 For post 2011	=	$Z_{1992}/Z$ $Z_{2004}/Z$		
ι οι ροσί 2011	=	2004 <sup>2</sup>	<b>Factor F:</b> 1.00	1.00
a) Design Importance Level, I			▼	▼
(Set to 1 if not known. For buildings depublic building set to 1.25. For building public building set to 1.33 for Zone A b) Design Risk Factor, R <sub>o</sub>	esigned prior to 1965 and k gs designed 1965-1976 an or 1.2 for Zone B. For 1976	d known to be designe		1
a) Design Importance Level, I (Set to 1 if not known. For buildings di public building set to 1.25. For buildin public building set to 1.35 for Zone A-  b) Design Risk Factor, R <sub>o</sub> (set to 1.0 if other than 1976-2004, o	esigned prior to 1965 and k gs designed 1965-1976 an or 1.2 for Zone B. For 1976	d known to be designe		1
a) Design Importance Level, I (Set to 1 if not known. For buildings de public building set to 1.25. For building public building set to 1.33 for Zone A b) Design Risk Factor, Ro	esigned prior to 1965 and k gs designed 1965-1976 an or 1.2 for Zone B. For 1976 or not known)	d known to be design -1984 set I value.)	ed as a $I = $ $1$ $R_o = $ $1$ $Ordance Level                                 $	1 01 02 03 0
a) Design Importance Level, I (Set to 1 if not known. For buildings di public building set to 1.25. For buildin public building set to 1.33 for Zone A-  b) Design Risk Factor, Ro (set to 1.0 if other than 1976-2004, of	esigned prior to 1965 and k gs designed 1965-1976 an or 1.2 for Zone B. For 1976 or not known)	d known to be designi :-1984 set I value.) <u>Choose Impo</u>	ed as a $I =         \phantom{A$	1 01 02 03 0
a) Design Importance Level, I (Set to 1 if not known. For buildings di public building set to 1.25. For buildin public building set to 1.33 for Zone A-  b) Design Risk Factor, Ro (set to 1.0 if other than 1976-2004, of	esigned prior to 1965 and k gs designed 1965-1976 an or 1.2 for Zone B. For 1976 or not known)	d known to be design -1984 set I value.)	ed as a $I = \boxed{1}$ $R_0 = \boxed{1}$ $entrance \ Level                                  $	1.0
a) Design Importance Level, I (Set to 1 if not known. For buildings di public building set to 1.25. For buildin public building set to 1.33 for Zone A- b) Design Risk Factor, Ro (set to 1.0 if other than 1976-2004, of c) Return Period Factor, R (from NZS1170.0:2004 Building Import	esigned prior to 1965 and k gs designed 1965-1976 an or 1.2 for Zone B. For 1976 or not known)  ortance Level)  = actor H	d known to be designi i-1984 set I value.) <u>Choose Impo</u> IR <sub>o</sub> /R	red as a $I = \boxed{1}$ $R_0 = \boxed{1}$ $R = \boxed{1.0}$ Factor G: $\boxed{1.00}$	1.00
a) Design Importance Level, I (Set to 1 if not known. For buildings di public building set to 1.25. For buildin public building set to 1.33 for Zone A- b) Design Risk Factor, Ro (set to 1.0 if other than 1976-2004, of c) Return Period Factor, R (from NZS1170.0:2004 Building Import	esigned prior to 1965 and k gs designed 1965-1976 an or 1.2 for Zone B. For 1976 or not known)  ortance Level)  = actor H tility Within Existing	d known to be designud: 1984 set I value.) <u>Choose Important</u> IR <sub>o</sub> /R  Structure	ed as a $I = \boxed{1}$ $R_0 = \boxed{1}$ $entrance \ Level                                  $	1.0
a) Design Importance Level, I (Set to 1 if not known. For buildings of public building set to 1.25. For building public building set to 1.35 for Zone A  b) Design Risk Factor, R (set to 1.0 if other than 1976-2004, of  c) Return Period Factor, R (from NZS1170.0:2004 Building Import  d) Factor G  5. Ductility Scaling Factor, Fa a) Available Displacement Duct Comment:	esigned prior to 1965 and k gs designed 1965-1976 an or 1.2 for Zone B. For 1976 or not known)  ortance Level)  = actor H tility Within Existing	d known to be designud: 1984 set I value.) <u>Choose Important</u> IR <sub>o</sub> /R  Structure	red as a $I = \boxed{1}$ $R_0 = \boxed{1}$ $R = \boxed{1.0}$ Factor G: $\boxed{1.00}$	1.00
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treet Number & Name:	Gallileo St			J	ob No.:	5640440
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ame of building:	WDC offices			D	Date:	26/04/2016
ity:	<b>Ngaruawahia</b>	a, Waikato		R	Revision No.:	0
able IEP-3 Initial Ev	valuation Proc	-				
efer Appendix B - Section B3.2)						
Longitudinal Direction						
potential CSWs		Effect on Struct (Choose a value -				Facto
1 Plan Irregularity	C Course	0.0	ignificant		<ul> <li>Insignificant</li> </ul>	Factor A
Effect on Structural Performation  No plan irregularity	nce U Severe	93	gmicani		© magnikuik	Factor A 1.0
2 Vertical Irregularity						<mark></mark>
Effect on Structural Performation  No vertical irregularity	nce Severe	O S	ignificant		<b>⊙</b> Insignificant	Factor B 1.0
3 Short Columns						<u></u>
Effect on Structural Performation  No short column effect	nce C Severe	Qs	ignificant		<ul><li>Insignificant</li></ul>	Factor C 1.0
a) Factor D1: - Pounding Effec	rt .					
a) Factor D1: - Pounding Effect Note: Values given assume the may be reduced by taking	building has a fram	the right of the value appl	icable to frame	buildings.		]
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WARNING!! This initial seismic evaluation process has been carried out solely as a screening tool in terms of the Waikato District Courcil's (WDC's) Earthquake-Prone, Dangerous and Insantitary Buildings Policy 2010 (Policy). This initial seismic assessment has been carried in accordance with the New Zealand Society for Earthquake Engineering document 'Recommendations for the Assessment and Improvement of the Structural Performance of Buildings in Earthquakes' using the Initial Evaluation Procedure (IEP) and has been prepared by Bea on the specific instructions of WDC. The purpose of the assessment is to identify buildings with potential seismic issues. It is not a detailed seismic assessment. Detailed inspections and engineering calculations, or engineering judgments based on them, have not been undertaken and they may lead to a different result or seismic grade. It is solely for the use of WDC and any use or reliance by any other person, is at that person's own risk.

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WARNING!! This initial seismic evaluation process has been carried out solely as a screening tool in terms of the Walkato District Coun cil's (WDC's) Earthquake-Prone, Dangerous and Insantitary Buildings Policy 2010 (Policy). This initial seismic assessment has been carried in accordance with the New Zealand Society for Earthquake Engineering document 'Recommendations for the Assessment and Improvement of the Structural Performance of Buildings in Earthquakes' using the Initial Evaluation Procedure (IEP) and has been prepared by Beca on the specific instructions of WDC. The purpose of the assessment is to identify buildings with potential seismic issues. It is not a detailed seismic assessment. Detailed inspections and engineering calcul ations, or engineering judgments based on them, have not been undertaken and they may lead to a different result or seismic grade. It is solely for the use of WDC and any use or reliance by any other person, is at that person's own risk.

< 20

Street Number & Name:	Gallileo St	Job No.:	5640440
AKA:	Unique Number:35-38 and 40	By:	Beca
lame of building:	WDC offices	Date:	26/04/2016
City:	Ngaruawahia, Waikato	Revision No.:	0
	luation Procedure Steps 4, 5, 6 an	d 7	
Step 4 - Percentage of New B	uliding Standard (%NBS)	Longitudinal	Transverse
Assessed Baseline %NBS (from Table IEP - 1)	(%NBS) <sub>b</sub>	100%	100%
Performance Achievemen (from Table IEP - 2)	t Ratio (PAR)	1.00	1.00
9.3 PAR x Baseline (%NBS) <sub>b</sub>		100%	100%
Percentage New Building ( Use lower of two values fr			100%
Step 5 - Potentially Earthqua	ke Prone? (Mark as appropriate)	%NBS <u>≤</u> 34	NO
Step 6 - Potentially Earthqua	ke Risk? (Mark as appropriate)	%NBS < 67	NO
Step 7 - Provisional Grading	for Seismic Risk based on IEP	Seismic Grade	Α
Additional Comments (items	of note affecting IEP score)		
Relationship betwee	n Crede and WARC.		

# Grade: A+ A B C D %NBS: >100 100 to 80 79 to 67 66 to 34 33 to 20

WARNING!! This initial seismic evaluation process has been carried out solely as a screening tool in terms of the Waikato District Coun cil's (WDC's) Earthquake-Prone, Dangerous and Insantitary Buildings Policy 2010 (Policy). This initial seismic assessment has been carried in accordance with the New Zealand Society for Earthquake Engineering document 'Recommendations for the Assessment and Improvement of the Structural Performance of Buildings in Earthquakes' using the Initial Evaluation Procedure (IEP) and has been prepared by Beca on the specific instructions of WDC. The purpose of the assessment is to identify buildings with potential eismic issues. It is not a detailed seismic issues. It is not a detailed seismic issues accessment. Detailed inspections and engineer in gcalulations, or engineering judgments based on them, have not been undertaken and they may lead to a different result or seismic grade. It is solely for the use of WDC and any use or reliance by any other pe rson, is at that person's own risk.

Initial Evaluation Proced	ure (IEP) Assessm	ent - Waikato District (	Council	Page 7
Street Number & Name:	Gallileo St		Job No.:	5640440
AKA: Name of building:	Unique Number:35- WDC offices	38 and 40	By: Date:	Beca 26/04/2016
City:	Ngaruawahia, Waik	ato	Revision No.:	0
Step 8 - Identification of pote	luation Procedure Sential Severe Critical Significant number of	tructural Weaknesses tha	t could result in	
8.1 Number of storeys above	ground level			1
8.2 Presence of heavy concre	ete floors and/or concre	te roof? (Y/N)		N
	_	no further consideration ther consideration require		
IEP Assessmen	nt Confirmed by	Beca	Signature	
		on behalf of WDC	Name	
			CPEng. No	

WARNING!! This initial seismic evaluation process has been carried out solely as a screening tool in terms of the Waikato District Council's (WDC's) Earthquake-Prone, Dangerous and Insantitary Buildings Policy 2010 (Policy). This initial seismic assessment has been carried in accordance with the New Zealand Society for Earthqu ake Engineering document 'Recommendations for the Assessment and Improvement of the Structural Performance of Buildings in Earthquakes' using the initial Evaluation Procedure (IEP) and has been prepared by Beca on the specific instructions of WDC. The purpose of the assessment is to identify buildings with potential seismic issues. It is not a detailed esismic assessment. Detailed inspections and engineering calculations, or engineering judgments based on them, have not been undertaken and they may lead to a different result or seismic grade. It is solely for the use of WDC and any use or reliance by any other person, is at that person's own risk.

# Initial Evaluation Procedure (IEP) Assessment - Waikato District Council

Page 1a

Street Number & Name:	Gallileo St	Job No.:	5640440
AKA:	Unique Number:35-38 and 40	By:	Beca
Name of building:	WDC offices	Date:	26/04/2016
City:	Ngaruawahia, Waikato	Revision No.:	0

### Table IEP-1a Additional Photos and Sketches

# Add any additional photographs, notes or sketches required below:

Note: print this page separately







WARNING!! This initial seismic evaluation process has been carried out solely as a screening tool in terms of the Waikato District Council's (WDC's) Earthquake-Prone, Dangerous and Insantitary Buildings Policy 2010 (Policy). This initial seismic assessment has been carried in accordance with the New Zealand Society for Earthqu ake Engineering document 'Recommendations for the Assessment and Improvement of the Structural Performance of Buildings in Earthquakes' using the Initial Evaluation Procedure (IEP) and has been prepared by Beca on the specific instructions of WDC. The purpose of the assessment is to identify buildings with potential seismic issues. It is not a detailed seismic assessment. Detailed in spections and eliancering calculations, or engineering glud agments based on them, have not been undertaken and they may lead to a different result or seismic grade. It is solely for the use of WDC and any use or reliance by any other person, is at that person's own risk.