

New Building Control (Fixed Installations) Regulations – **FI Plans Submission and PTO Application**

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Objective

- Provide an overview on some changes in regulatory requirements for FI plans submission and PTO application regimes.
- Please register for the Briefing Sessions for BC(FI)Regs for more details (session dates in last slide)

Agenda

- Overall regime changes
- FI plans submission
- PTO application
- Overall timeline and lapsing of plans approval
- Getting ready
- Upcoming events

Regime after implementation of BC (FI) Regs

NEW

Design

Installation

Operation & Maintenance

Alteration & Replacement

Standards



Type testing of lift model and safety components.

- **Fixed installation contractor** carry out FI works in accordance with approved plans.

Periodic maintenance; Owner appoint **service contractor to maintain** according to prescribed requirements.

Owner notify BCA in writing before work commences.

Qualified Person (QP) prepare and certify plans to be submitted for approval.

- **QP supervise** the contractor's examination, inspection, testing & commissioning (EITC) of FI after completion.

Renewal of PTO annually: **QP supervise** the contractor's examination, inspection & testing of FI.

QP prepare and certify plans to be submitted for major A/R works, supervise contractor's EITC of FI after works completion.

Entire process to come under the BC (FI) Regs

To tighten L&E safety standards right from the start:

- Design to be approved before installation in accordance to approved plans → **minimise non-compliances downstream, difficult to rectify later on.**
- Major alteration & replacement to require plan approval before works commences.

BMSM (Lift, Escalator and Building Maintenance) Regs 2016 will be repealed

Definition of “Fixed Installation” in Building Control Act

“fixed installation” means any of the following machine-powered installations:

- (a) an escalator;
- (b) a lift;
- (c) a mechanised car parking system,

and includes any supporting structure, machinery, equipment, apparatus and enclosure used or designed for use for operating a fixed installation;

FI Plans Submission

Implementation Cutoff Dates

FI plans submission will be required prior to the commencement of the works for the following:

Fixed installation works that are:

- i) carried out on or after **1 July 2025**; and
- ii) not part of building works for which an application to the CBC for approval of plans of the building works was submitted before **1 July 2025**.

Roles of Stakeholders for FI Plans Submission



Developer

- Appoint FI Works Contractor and QP (Plans)
- Obtain an approval of the plans prior to the commencement of the FI works



FI Works Contractor

- Submit relevant documents to the QP (Plans)
- Ensure the validity and the completeness of the documents



QP (Plans)

- Ensure that FI works are designed in accordance with regulatory requirements
- Submit plans for approval on behalf of the developer

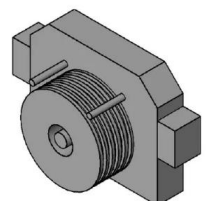


Builder & Building Works QP

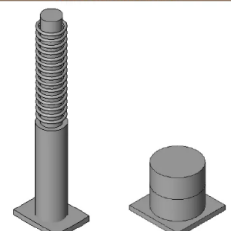
Are the relevant stakeholders onboarded early?
Is there sufficient time catered for BCA's review?

Building Information Modelling (BIM) requirement

- Projects with more than 5,000 sqm in Gross Floor Area (GFA) need to be submitted in BIM
- Make use of Generic BIM family lift/esc components models to prepare models
- Refer to BIM Guide (<https://www1.bca.gov.sg/regulatory-info/lifts-escalators/building-information-modelling-for-fixed-installation-design-plans-submission>)

Traction Machine and Brakes		
		
*gearless		
	Parameter Name	Sample Value
Intrinsic Parameter	Machine_RatedSpeed	1.5m/s
	RopeCount	6
	RopeDiameter	10mm
	Roping	2:1
	Rope_Configuration	Single Wrap
	Rope_BreakingStrength	350N
Body	Outer Diameter*	600mm
	Inner Diameter*	400mm
	Width*	250mm
Others	DriveType	Traction
	Geared	Geared/Gearless
	BrakeType	Disc/Block/Belt
	Machine brake model	BCA DD55 Brake

*not MC parameter but modelling parameter only

Car/Counterweight Buffer		
		
	Parameter Name	Sample Value
Intrinsic Parameters	LiftBuffer_RatedSpeed	2m/s
	LiftBuffer_Stroke	100mm
	LiftBuffer_ImpactMassRange	450kg - 3000kg
Baseplate	Width*	200mm
	Length*	200mm
	Height	20mm
Column	Diameter*	150mm
	Height	200mm
	Diameter*	100mm
Stroke/rubber	Height	175mm
	LiftBuffer_FixedToCar	Yes/No
Others		

*not MC parameter but modelling parameter only

Submission Requirements

- Includes site plans, floor plans, lift shaft drawings, escalator structural drawings, MCPS design drawings
- Also includes type testing certificates for lift model and safety components, as well as proof test documents for escalators
- Refer to the **Second Schedule** for the full list of submission requirements

When to Submit

- If the FI works is part of a building project such as new building construction or A&A works, building plans approval has to be obtained prior to the submission of the FI plans.
- FI plans approval has to be obtained **prior to the commencement of the FI works.**

How to Submit

- For projects that are onboard CORENET X*, FI Plans Submission can be submitted through CORENET X as well.

Note: Projects with prior submissions in CORENET X or with no prior submissions.

- For other projects, a submission form will be provided via FormSG
 - Documents will have to be encrypted using Netrust token
- Training sessions and submission user guide will be provided at a later date

Major A/R Works

- There are 2 lists of Major A/R works in the BC(FI)Regs, **The First Schedule**:
 - a) Works that require FI plans submission;
 - b) Works that do not require FI plans submission
- Major A/R works that require FI plans submission are works that significantly affect the design of the FI

e.g. if type tested components are replaced with a different model, or when refuge spaces at car top/bottom are affected
- For all Major A/R works, the PTO will cease to be valid and **the owner will need to reapply for a new PTO** (after the Supervisor QP supervises the EITC).

Major A/R works that require FI Plans Submission

- The Plans submission QP has to review the compliance of the works and submit relevant data and documents to BCA for approval.
- These relevant data and documents should be part of the list in **The Second Schedule** of BC(FI) Regs. Examples:
 - Changing the lift car mass by $\geq 5\%$
 - The change affects type tested safety components such as safety gear and buffers, as well as the guiderail model being used. The new **type testing details and documents** as well as **guiderail size** should be submitted.

PTO Application

Implementation Cutoff Dates

- For projects that come in for PTO applications after **1 Jul 2025***, the QP(Supervisor) has to declare under the **BC (FI) Regulations** instead of BSM Regs

Note: For these projects with new lift installations, owners must get a Maintenance Control Plan (MCP) from the lift installer and keep a copy of the plan

- For projects that have submitted FI Plans, there is no need to submit Type Testing certificates at PTO application, as they would have been checked at plans submission stage

Roles of Stakeholders for PTO Application



Developer

- Appoint FI Works Contractor and QP (Supervisor)
- Obtain a PTO prior to operation



FI Works Contractor

- Carry out Examination, Inspection, Testing and Commissioning (EITC) of FI
- Facilitate inspection by BCA



QP (Supervisor)

- Supervise EITC
- Declare and Certify that EITC has been carried in his/her supervision and is in accordance with regulatory requirements
- Apply for PTO on behalf of the developer



Builder & Building Works QP

Is the site ready for BCA's inspection?
Is there sufficient time catered for BCA's inspection?

PTO Application

- Once the Supervisor QP completed his/her supervision of the EITC, he/she can apply for PTO
- The general process remains largely unchanged (application will still be through LEAP), but the Supervisor QP will now **propose an inspection date** during the application
- If selected for inspection, the PTO application will be put on hold while **BCA conducts an inspection on the FI works**. This is similar to the current TOP process
- The PTO application will only be processed upon clearing the inspection

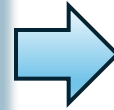
Overall Timeline and Lapsing of Plans Approval

- The fixed installation works should start **within 24 months** after obtaining the FI plans approval
- Otherwise, the plans approval will lapse
- The developer or the QP should take the initiative to update BCA on the project status, if the installation works cannot commence due to any exceptional situations

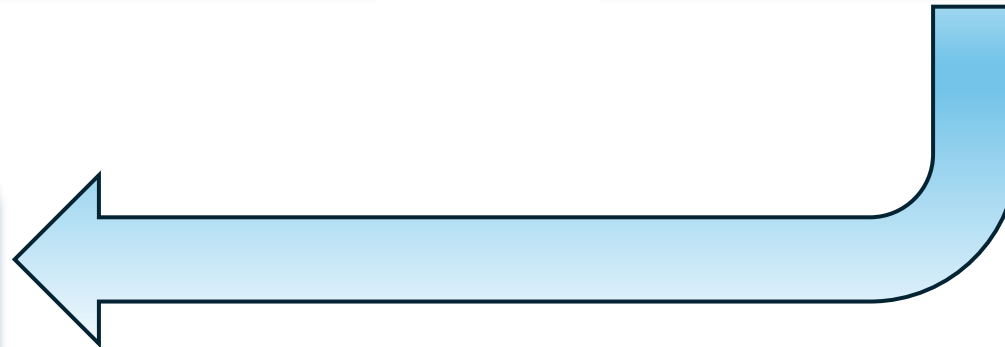
Start



Plans Submission QP
submits FI plans



BCA Processing Officer (PO)
respond to issue NOA



FI works Contractor conducts
EITC on the FI works under the
supervision of the Supervisor QP



Supervisor QP
submits PTO
application



PTO PO responds to
arrange for T&C
inspection



Lift contractor
supports BCA to carry
out T&C inspection



PTO PO issues PTO

Getting Ready

- QP to familiarize with the submission requirements and process
- Contractor to ensure to get the necessary info + doc for upcoming projects
- Developer to know who to appoint
- Building works QP and builder to take note of the impact to project timeline

For further information

- Webpage (<https://www1.bca.gov.sg/regulatory-info/lifts-escalators/lifts-and-escalators-legislation/fixed-installation-regulations>) with the following guides to be published:
 - Overall FI plans submission regime and submission requirements
 - Submission Guide
 - Guide on T&C
- Training sessions for submission (dates to be confirmed)

Thank you