BE-CX Site Supervisors' Webinar 2026

24 August 2026
11:00am – 12:30pm

RESTRICTED (SENSITIVE-NORMAL)

Overview of CORENET X

SHARING ON CORENET X

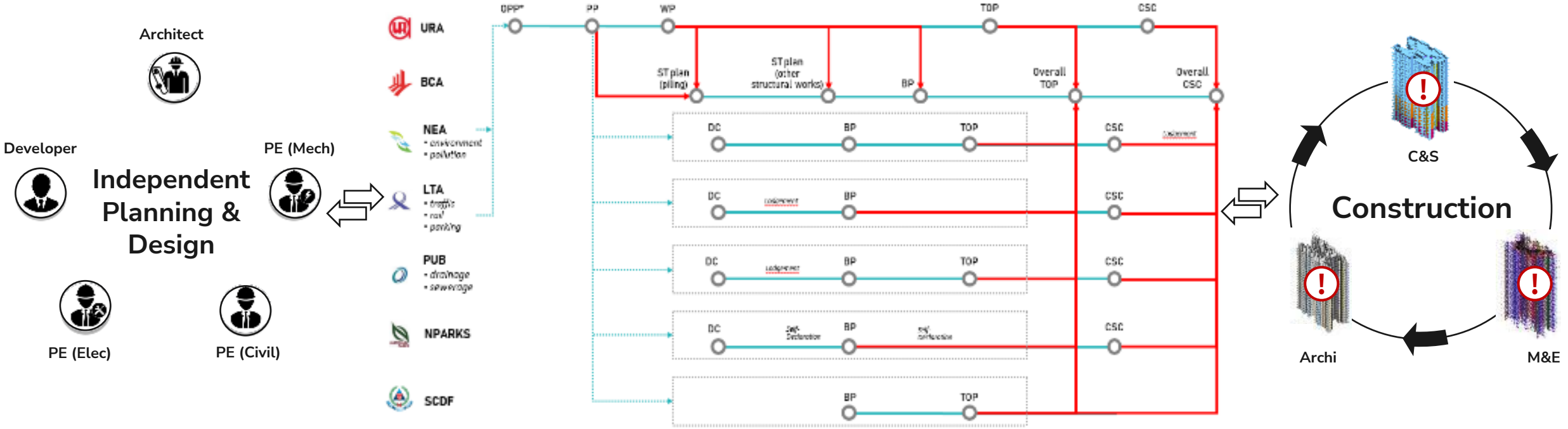
CONTENT

01 Introduction to CORENET X

02 New RABW Process and Requirements

03 Resources and Learning Tools

Background: Today's Separate and Concurrent Process



Industry ⇄ **Agencies** ⇄ **Construction**

upstream ---------- downstream

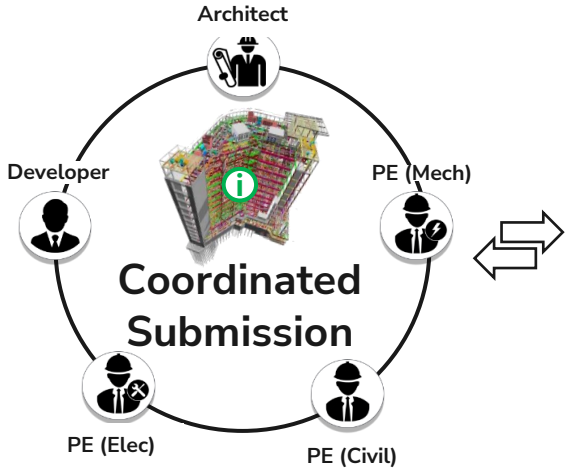
- Plans are prepared by **different professionals** which are often **uncoordinated**
- Plans are **submitted separately** to different agencies at **>20** touchpoints

- Each of the 7 agencies has a **different regulatory mandate**
- Comments from one agency may lead to **resubmission/amendments** to others
- Approved plans can be **conflicting**; **no single integrated view** of the approved plan

- Plans contain **conflicts that need to be resolved** during construction
- Rectifications resulted in **abortive works and delay to completion**

CORENET X: New Regulatory Approval Process for Building Works (RABW)

Co-creation journey to redesign and streamline the regulatory processes into 3 main gateways





SAVINGS IN TIME & COST

"Get your project done faster and spend less – no more running around or repeated works."

OBTAIN AGENCIES' APPROVALS AT ONE GO

"Get all your approval in one go, instead of chasing different agencies separately."

BUILD WITH CERTAINTY

"Know exactly what you can build before you start, avoiding expensive changes later."

1 **Coordinated Response**

Regulatory agencies will collectively review submissions and provide deconflicted response.

2 **Iterations per Gateway**

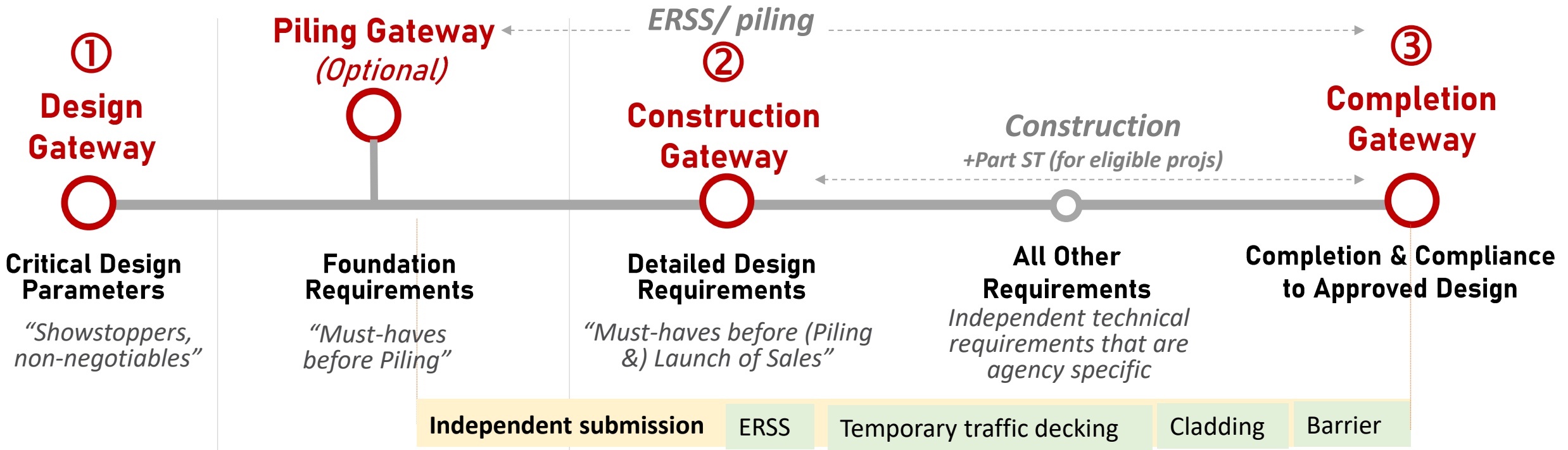
Good quality submissions should be able to obtain clearances within 2 Written Directions.

20 **Working Days Response Time**

For joint submissions, whereby regulatory agencies will collaborate to respond within 20 working days.

02 NEW RABW PROCESS & REQUIREMENTS

Approvals under Consolidated CORENET X Gateways



Approvals at each Gateway consist of the following agencies' equivalent clearances today* :

- URA PP
- LTA Layout Plan, NEA and PUB DC Clearances
- NParks DG Approval including tree-cutting

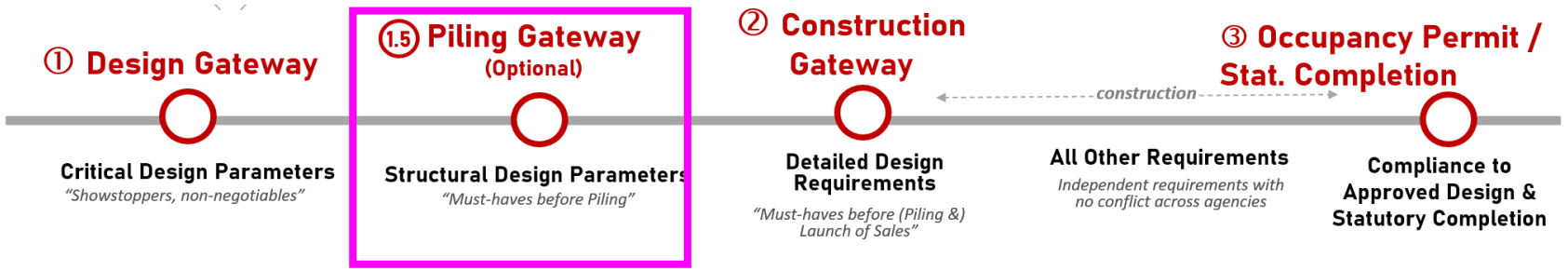
- BCA ST Approvals for Permanent Piling Works
- LTA RPZ AIP for Pile Design and Layout Plan
- Independent clearances, e.g. NParks EMMP & PUB's Earth Control Measures Approval

- URA WP
- BCA BP and ST Approvals
- LTA Street Plan Clearance, BP (Parking), BP (Rails)
- NEA and PUB BP Clearance Cert
- SCDF BP Approval
- NParks CG Approval

Key Objective of Gateways
Resolve **multi-agency requirements** concerning design details that need to be **coordinated**

**Requirements at each Gateway may not be the same as requirements for clearances today. For more info, please visit https://info.corenet.gov.sg/regulatory-process/about-the-new-submission-process or refer to the Code of Practice*

CORENET X Workflow – Piling Gateway(PG) - Optional*



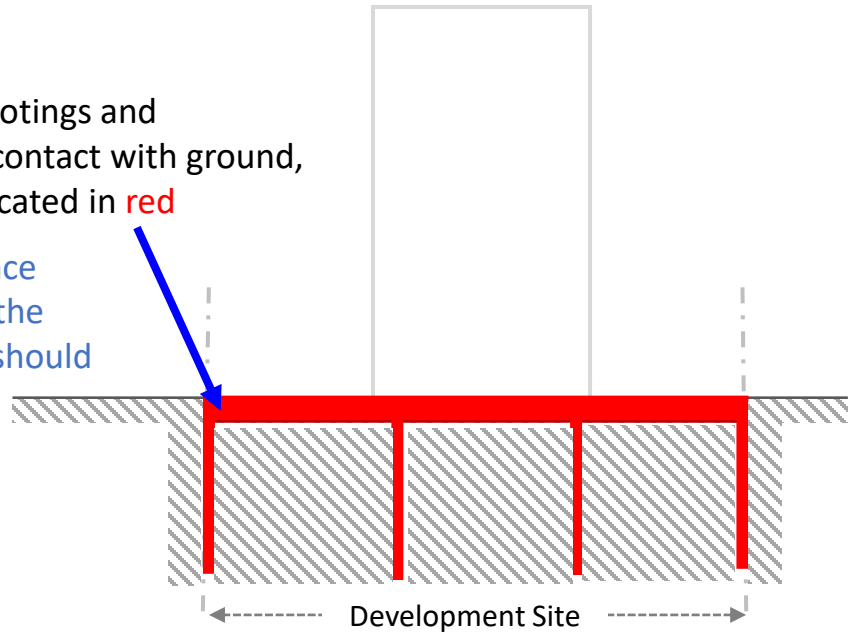
QPs are to assess the risk involved when opting for piling gateway before superstructure is approved.

Agencies have developed the Piling Gateway as a clearance for **design of permanent piling and substructure works (that do not affect internal layout)**

Conventional foundation system

Piling, pilecap/ footings and substructures in contact with ground, i.e. Elements indicated in red

(a set of reference plan/ model of the entire building should be provided)

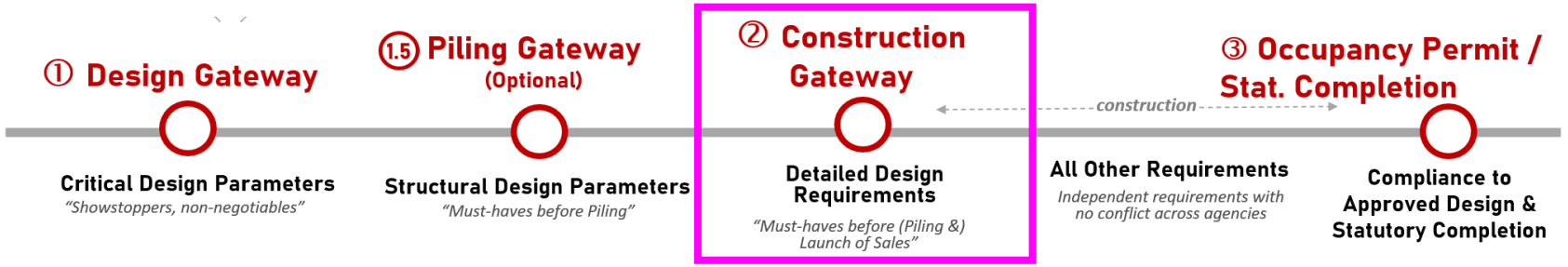


❖ Column starter bars can be included

- The Piling Gateway clearance pertains to the design of permanent piling and substructure works (that do not affect internal layout), where its **clearance is for design approval and not for commencement of works**

- Other site works (e.g. for site clearance, temporary protection, etc), which do not form part of the permanent structures but still require agencies' clearances, can be cleared in parallel and need not be tied to the Piling Gateway approval

CORENET X Workflow – Construction Gateway (CG)



To resolve multi-agency requirements concerning design details that need to be coordinated before commencement of main structural works and launch of Sales. This is to minimise abortive works on-site downstream.

Structural Design *(continued from previous page)*

	Agency	Requirement Category
	BCA *(continued from previous page)*	• **Complete set of IFC-SG model(s)** for all structural elements & details • **2D Drawings limited to:** ○ General notes ○ Special details (e.g. slab reinforcement detailing, complex structure detailing, transfer plate detailing, irregular section detailing, precast joints, prestressed details, steel connections.) **Design Calculation Reports:** • From QP, AC, [QP(Geo) & AC (Geo), if needed)] **Additional Supporting Documents:** a) Site investigation report in PDF & AGS format b) Impact assessment report c) Topography d) Complete set of building plan submitted simultaneously e) Completion letter of pre-consultation (for complex structure only)

- The Construction Gateway clearance pertains to the superstructure elements. However, the project team may also include foundation and substructure elements under the Construction Gateway if they do not opt for a Piling Gateway.

CORENET X Workflow – Completion Gateway (CG)

③ Completion (TOP/CSC)

Completion & Compliance to Approved Design

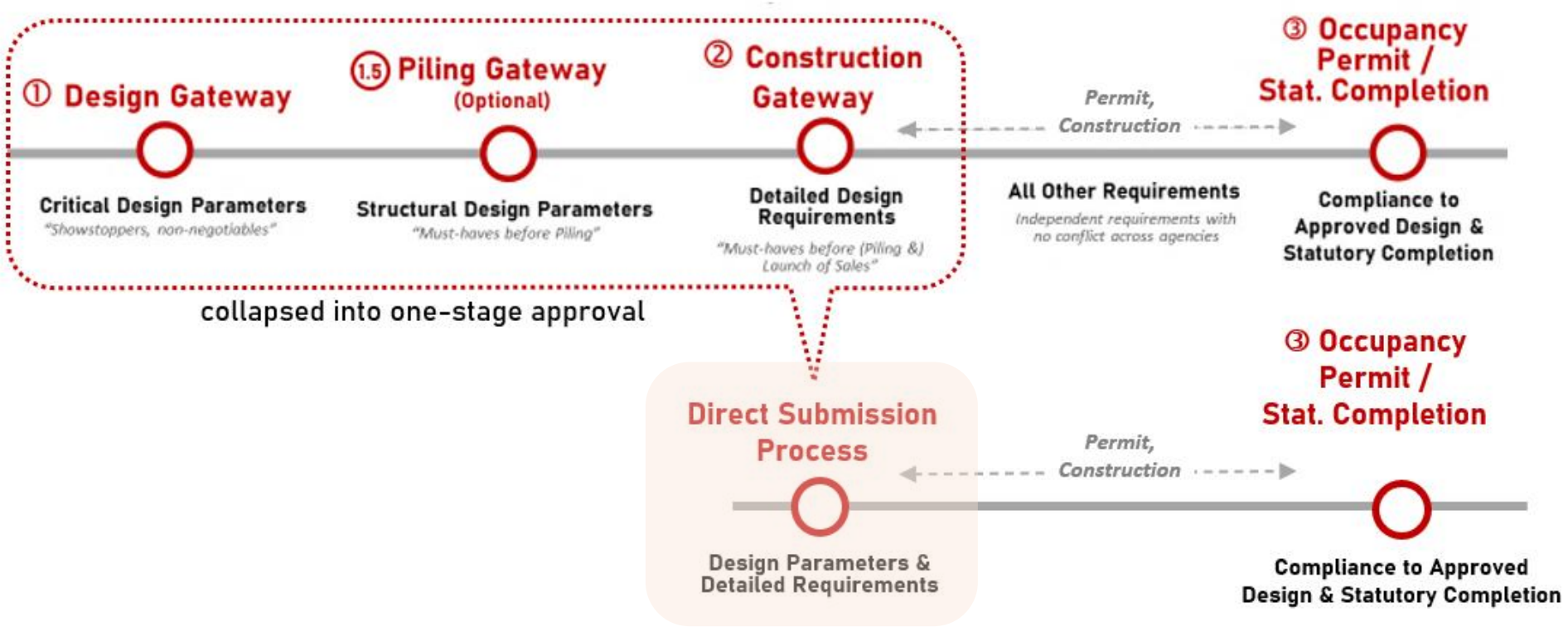
- Site inspection to ensure building works are **constructed as per approved plans and comply with requirements**
- Ensure completed building is **fit for occupation**

Start occupation, obtain Statutory Completion

- TOP submissions are to be made to respective agencies independently and concurrently, whenever ready under Technical Clearances
- The final TOP/CSC will be issued when the project obtains all the necessary clearances from all agencies.
- A **one-stop dashboard of the project's status of TOP/CSC applications across various agencies** will be available in the CORENET X Submission Portal for **greater transparency and better tracking.**

Differentiated Approach: Direct Submission Process (DSP)

DSP: A more streamlined process for less complex building works (e.g. single-unit residential landed development, standalone pavilion/linkway/racking system) that need not to be subjected to the typical RABW 3-Gateway process

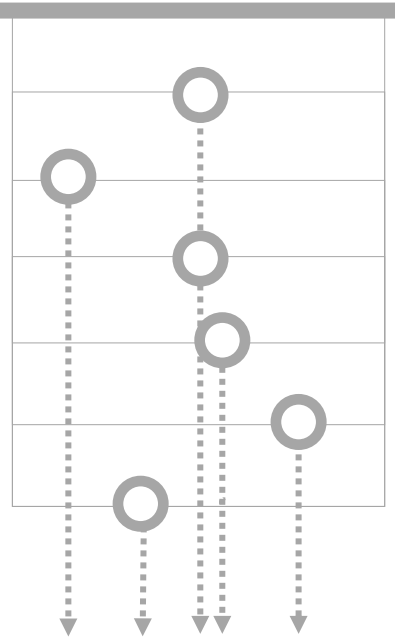


- A **single stage approval** prior to TOP/CSC, instead of multiple touchpoints at Design Gateway, Piling Gateway (optional) and Construction Gateway.
- Rationalising and consolidating existing Lodgement, Self-declaration and Simplified Submission schemes.

Key Highlights of the New RABW – Independent Submission

Independent Submissions

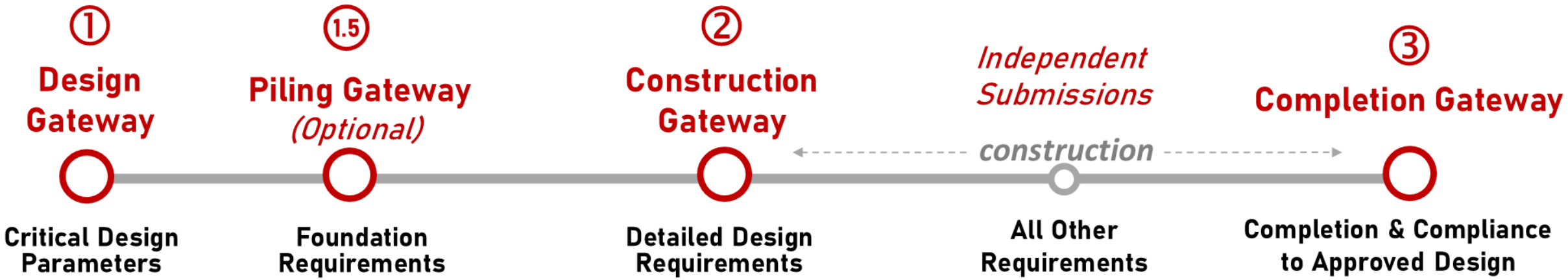
Technical submissions to one agency line department on **specialist details and agency-specific details** that do not affect other agencies



Issuance of agencies' clearances/ acknowledgements

- QP(ST) can **submit ERSS, temporary traffic decking, barrier and cladding work as independent submissions** together with permit application.
  - QP can link the independent submission with existing permit if there is no change on the project parties.
  - Else QP can apply for a fresh permit together with this independent submission.

Amendment Plan Submission



- ***Minor deviation*** *to the approved DG can be* ***incorporated into the subsequent Gateways*** *(i.e. PG/CG)*

- ***Similar to today, amendment submissions still apply***
- ***Material changes*** *to approved plans will require amendment submission*
- For **joint submission (e.g. DG, CG), all QPs involved will need to indicate if the changes affect the plan.**
- ***Amendments should be consolidated and coordinated across the agencies instead of piecemeal amendment***

CORENET X Submission ES number

ES20240916-50013-PG01R00

1 2 3 4

Numbering (PG01) will increase to next count (PG02) for **subsequent amendment** submission

Legend		
1	Submission date	ES20240916
2	Submission count of the day	50013
3	Submission Categories	DS – Direct Submission Process DG – Design Gateway PG – Piling Gateway CG – Construction Gateway BC – Submission to BCA only (Independent Submission) JS – Joint Submission (Pre-submission Consultation)
4	Revision	R00 – Original submission R01 – 1st resubmission R02 – 2nd resubmission

Permit Application

Permit to Carry Out Structural Works

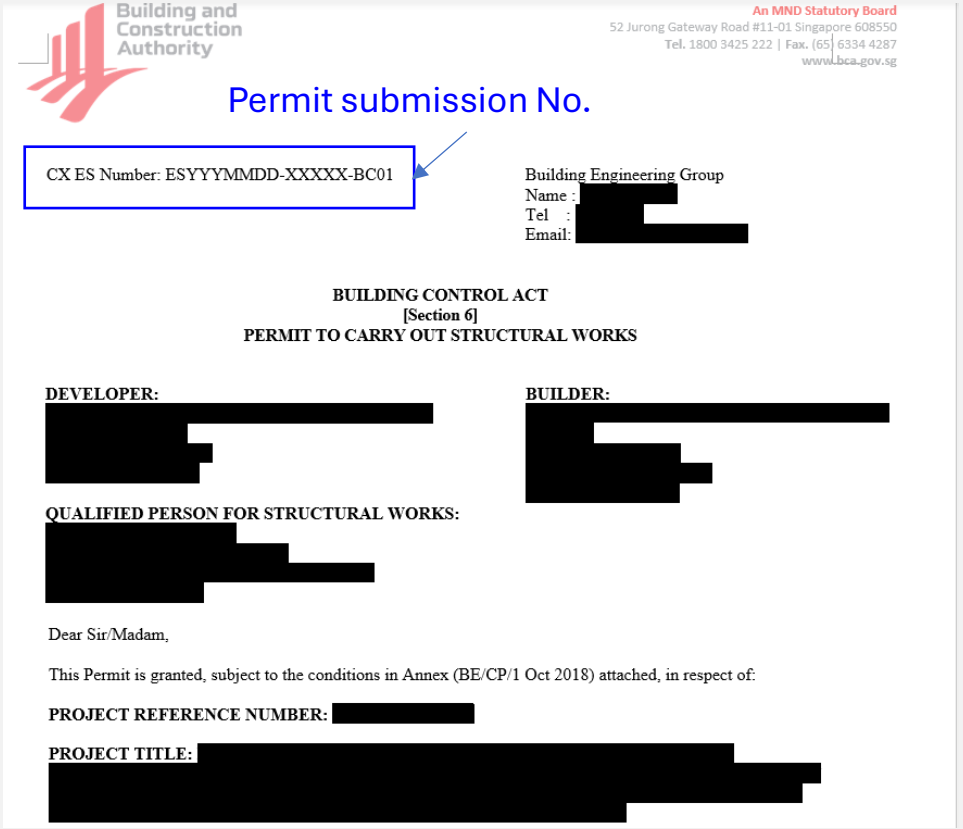
- The requirement to obtain Permit to Carry out Structural Works remains unchanged
- The QP will initiate the Permit application upcoming approval of Piling Gateway, Construction Gateway, DSP or Full Demolition submission

Steps to Note:

- **Step 1 – Added as Project Member**. QP will add relevant REs and RTOs as project members. REs and RTOs are required to login to the system with Singpass verification to acknowledge their addition to the project.

- **Step 2 – Acknowledge Appointment**. Once QP completes the permit application details, REs and RTOs are required to login to the system with Singpass verification to declare their appointment as site supervisors for the project

- **Outcome**: Site supervisors have full transparency and clarity on all projects they are involved in



Approved Permit and Related Structural Plans

Submission Portal – Project Overview Page

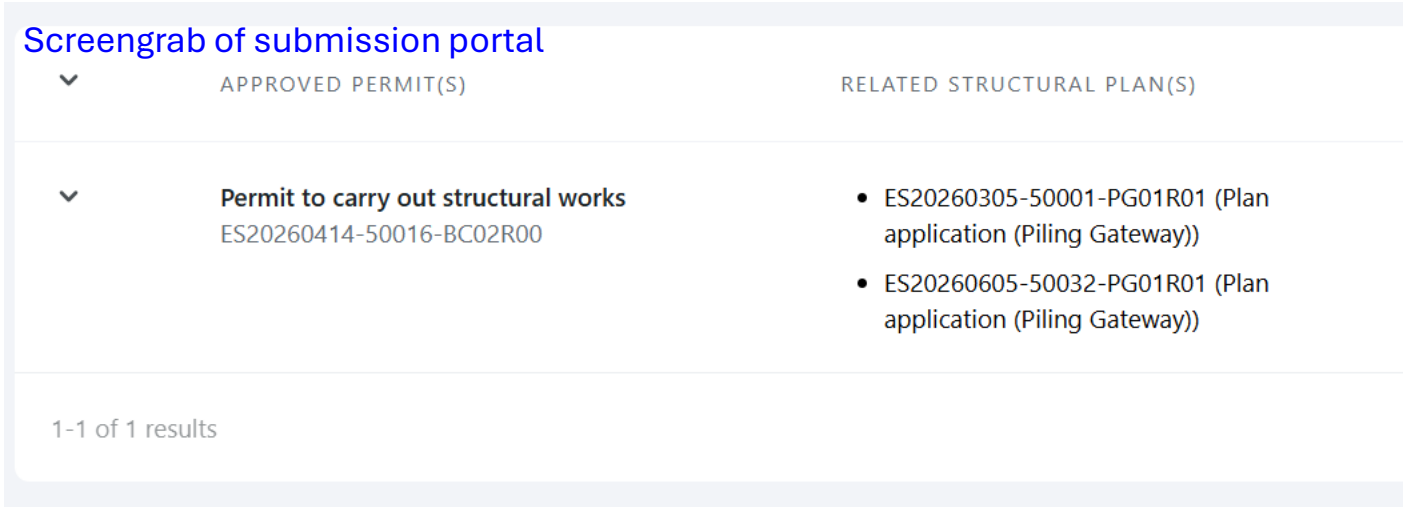
Identify Permit and Related Structural Plan(s). The project overview page in submission portal enables REs/RTOs to identify structural plans linked to an approved permit, allowing for retrieval of approved submissions and downloading corresponding approved drawings and IFC models for record-keeping and site supervision purposes

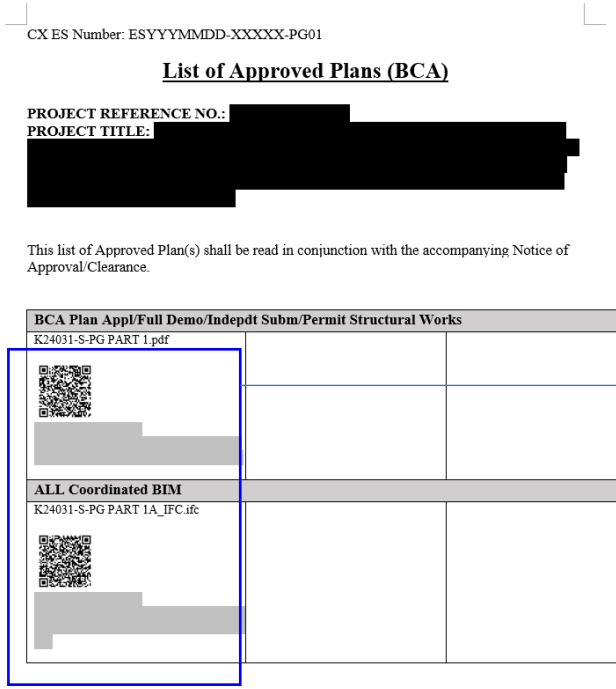
Approved Submissions

BCA will issue the following documents when a submission is approved:

- Notice of Approval
- List of Approved Plans [Checksum for plans & IFC model]
- Advisories [where relevant]

Screengrab of submission portal





CX ES Number: ESYYYMMDD-XXXXX-PG01

List of Approved Plans (BCA)

PROJECT REFERENCE NO.: [redacted]
PROJECT TITLE: [redacted]

This list of Approved Plan(s) shall be read in conjunction with the accompanying Notice of Approval/Clearance.

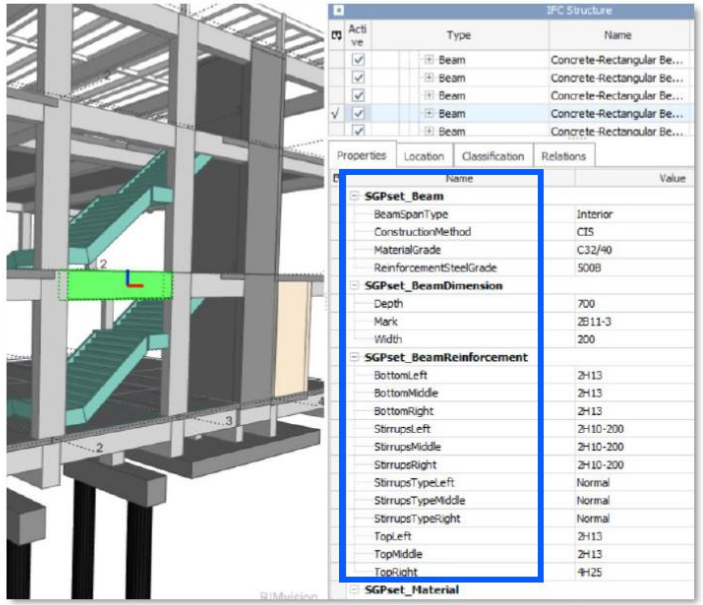
BCA Plan Appl/Full Demo/Indepdt Subm/Permit Structural Works		
K24031-S-PG PART 1.pdf		
ALL Coordinated BIM		
K24031-S-PG PART 1A_IFC.ifc		

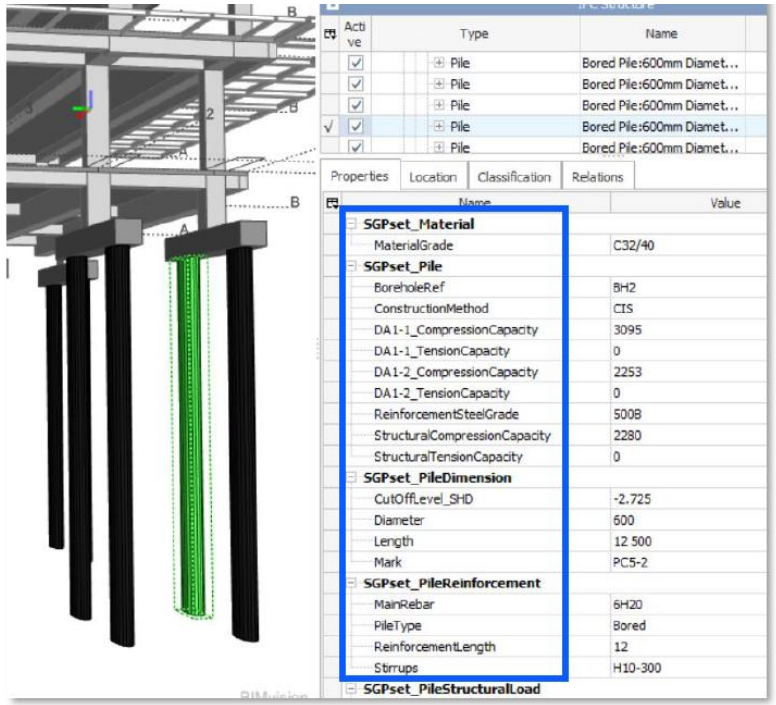
Checksum provides the unique identification no. of the approved drawings or IFC model

IFC+SG: OpenBIM format customized for local context

- QPs are required to submit **BIM model** for **projects with new Gross Floor Area (GFA) of 5,000m^2 or more**
- The BIM model, modelled in IFC+SG format and prepared in accordance with CX Code of Practice, forms part of the approved set of details for construction
- A complete set of IFC+SG model shall consist of elements as described in the CX Code of Practice. For example, the structural model can comprise of the following: Piles, Footings/pilecaps, Beams, Columns, Walls, Slabs, Staircases & Boreholes
- QP can still submit details represented in 2D drawing to supplement the IFC+SG model
- REs and RTOs are to work closely with QPs to understand the approved documents to be used for supervision purposes — approved documents will carry a unique identification ID shown in the checksum issued by BCA

Examples of IFC+SG Parameters





BIM Vision and BIM Collab are free, downloadable software that can be used to view IFC models.

Key Takeaways

1

Know the Types of Submission Gateways

Different types of structural works are tied to specific Gateway submissions. Being familiar with these will help you quickly identify and reference the most current set of approved drawings and models on site.



2

Site Supervisors Role in CORENET X Submission Portal

REs and RTOs are required to log in to the Submission Portal via Singpass to acknowledgment addition as project members and make declarations.



3

Submission Portal – Project Overview/Submission Workspace

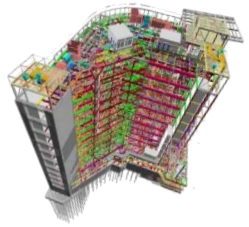
Submission Portal is your go-to website for retrieving approved submissions and identifying the models and drawings linked to each approval, for record-keeping and site supervision purposes.



4

IFC+SG Models forms part of approved submission

IFC+SG models are included as approved structural details in CORENET X, alongside 2D drawings. REs and RTOs should be comfortable reading and navigating BIM models for supervision purposes, work closely with QPs to understand the approved information within these models, and request the necessary resources to carry out site inspections using BIM where required.

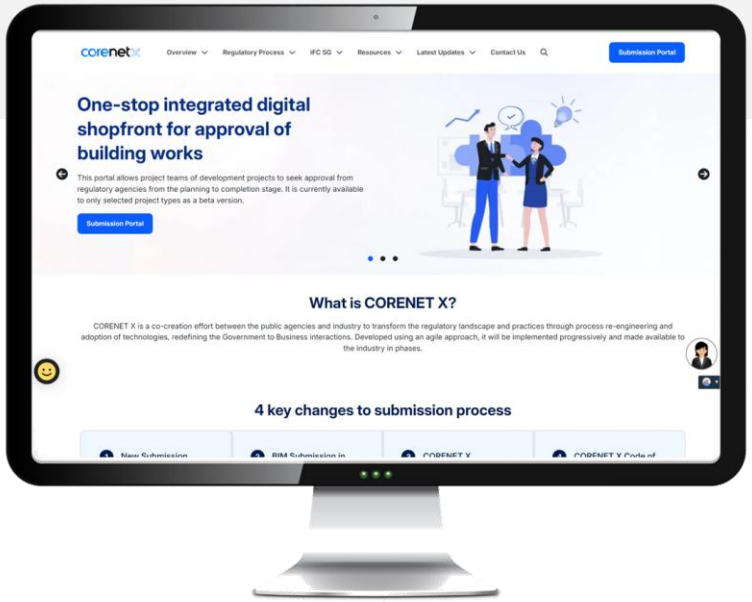


03 RESOURCES & LEARNING TOOLS

How to Prepare for CORENET X (CX) – Resources and Trainings

CX Website and Resources

- Submission Portal Guides (link)
- IFC+SG Resources (link)
- Past Events and Materials (link)
- List of firms that have onboarded CX (link)



Scan for more details on CX:

https://go.gov.sg/cx

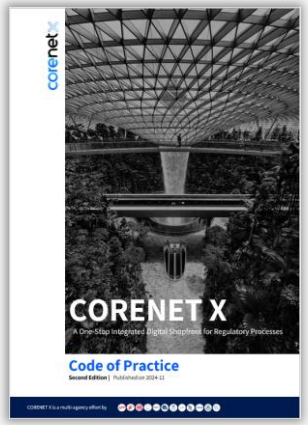
CX Training and Courses

1. **CX Regulatory Approval for Building Works (RABW) Course**
   Understanding the new RABW Processes
2. **IFC+SG Training**
   Preparing OpenBIM submissions using IFC+SG

Scan to find out more on CX training and courses:

https://go.gov.sg/cxtrainingcourses

CX Code of Practice (COP)



Recommended procedures and good practices to **help industry practitioners in preparing multi-agency regulatory submissions** across the key submission gateways in CORENET X.

Scan to access the latest version of CX COP (3rd ed.):

https://go.gov.sg/cxcop

How to Prepare for CORENET X (CX) – CORENET X Training Environment

Training environment replicates the CORENET X Submission Portal for **simulated hands-on experience**.

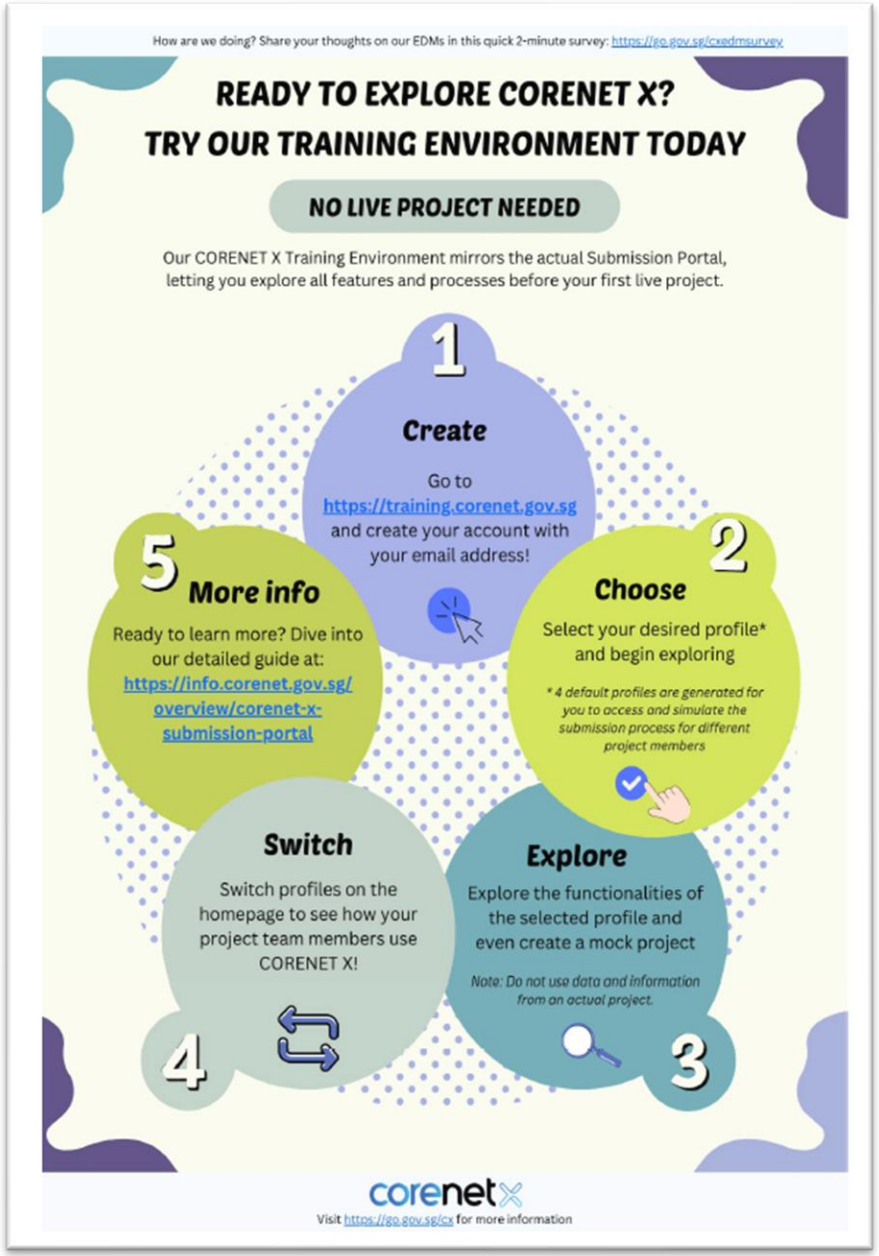
Allowing industry users to explore the Submission Portal's **interface, functions and submission forms** without an actual project.

Training guide to help industry navigate the simulation environment (click here to access the training guide and here for the webinar recording).

Scan to access the CX training environment:

https://go.gov.sg/cxtrainingenv





Thank You!

Site Supervisor’s Roles and Responsibility in CORENET X

Site Supervisor’s Roles and Responsibility in CX

CONTENT

01 Submission Portal Walkthrough

02 Acknowledgment for Member Addition

03 Making Declaration for Permit application

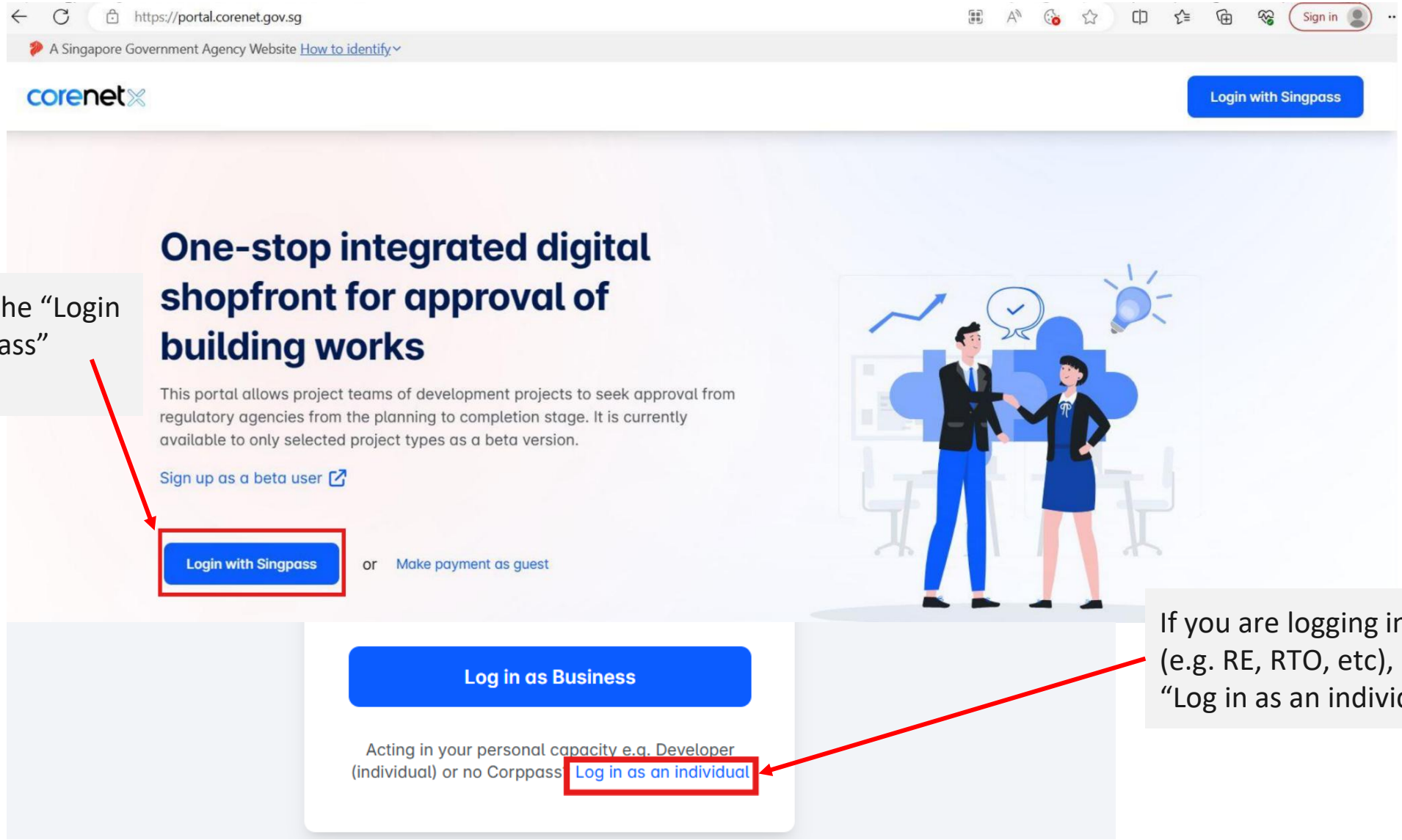
04 Plan Submission with associated Permit

05 Verifying Approved Plans via Checksum

01 Submission Portal Walkthrough

Submission Portal Walkthrough

CORENET X Submission Portal Link: [CORENET X]



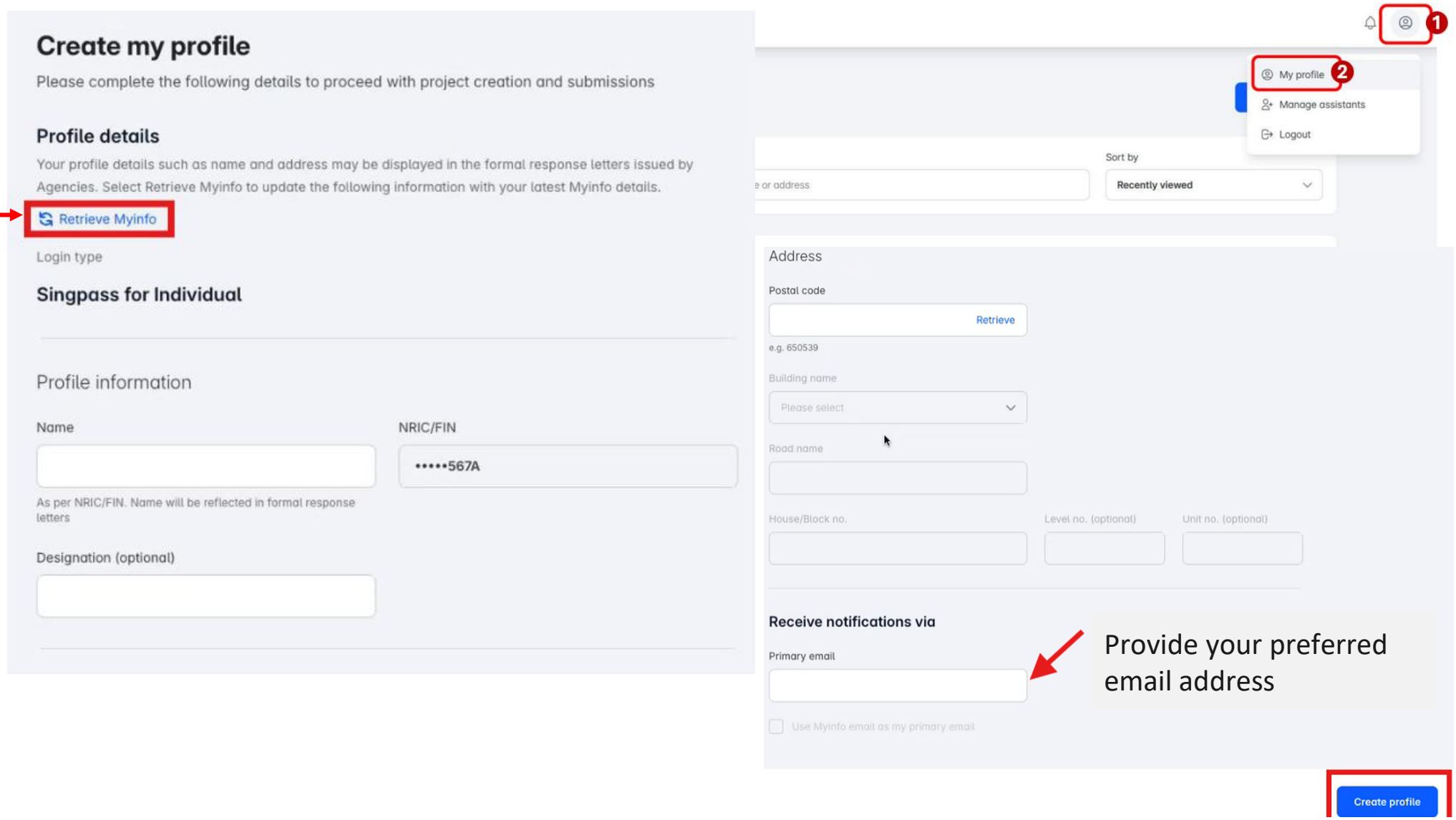
Click on the "Login via Singpass" button.

If you are logging in as an individual (e.g. RE, RTO, etc), please click on "Log in as an individual"

Submission Portal Walkthrough

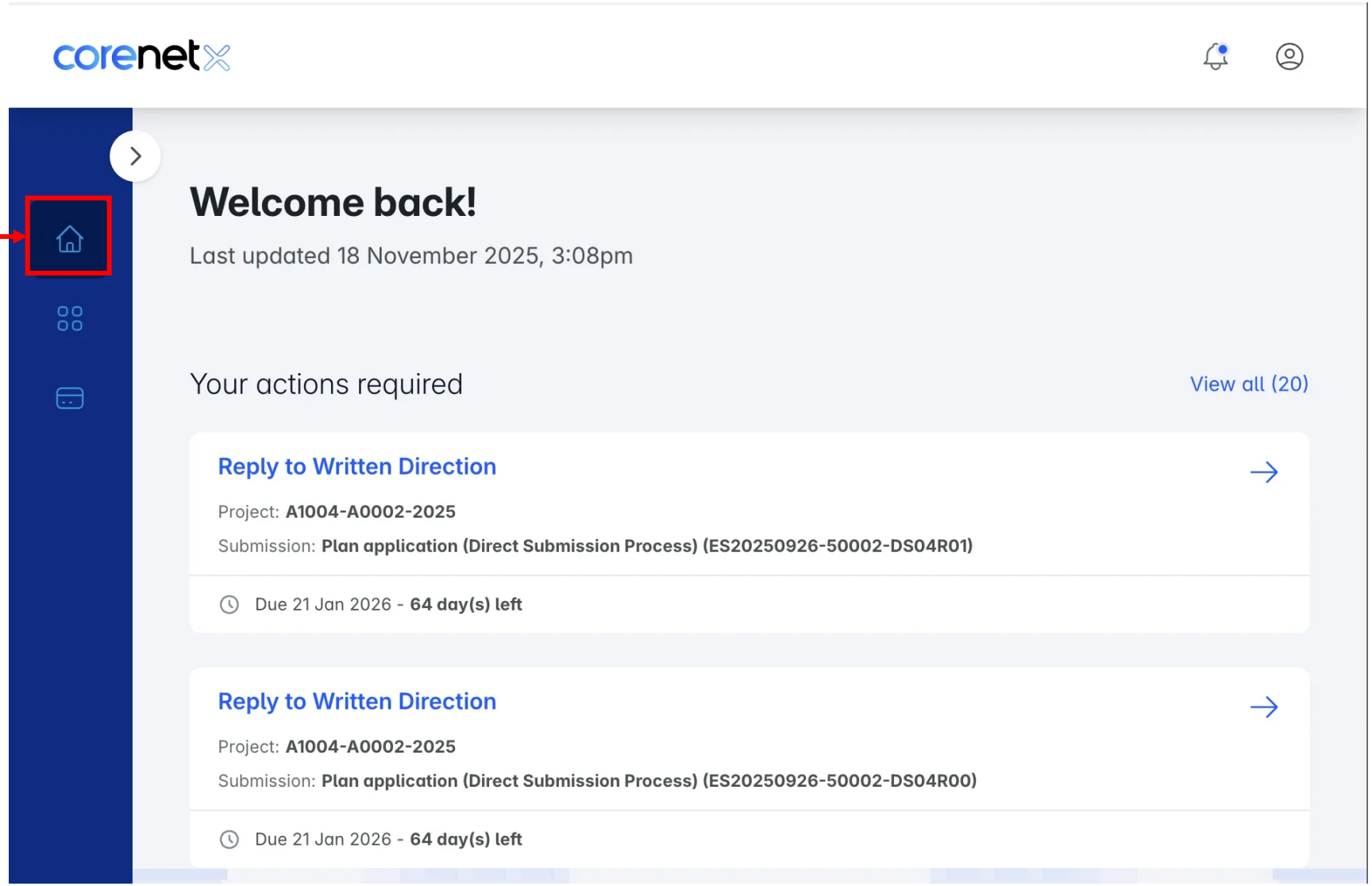
Profile creation

You are encouraged to select “Retrieve Myinfo” to ensure the most accurate details are extracted in your preparation for submission.



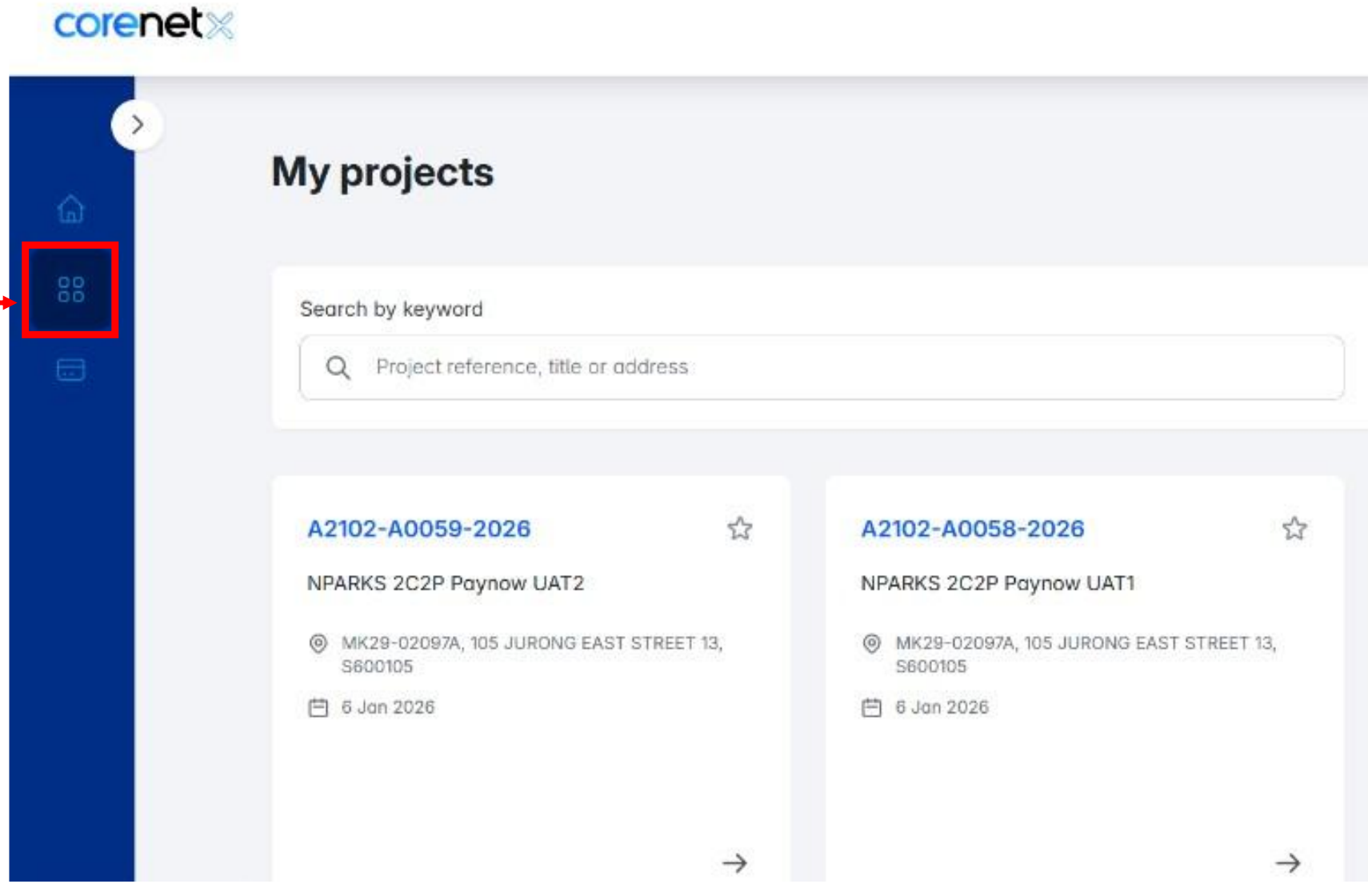
Submission Portal Walkthrough

Homepage



Submission Portal Walkthrough

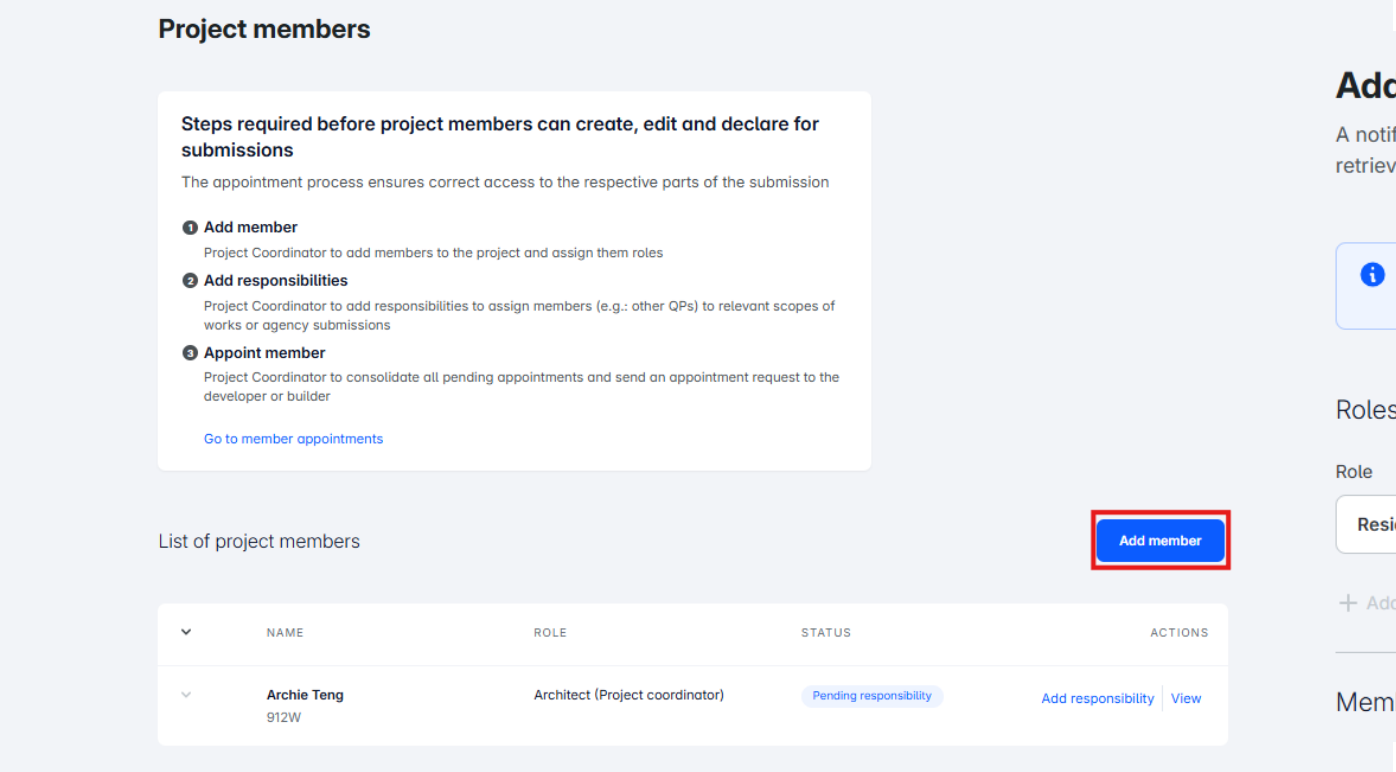
My Projects

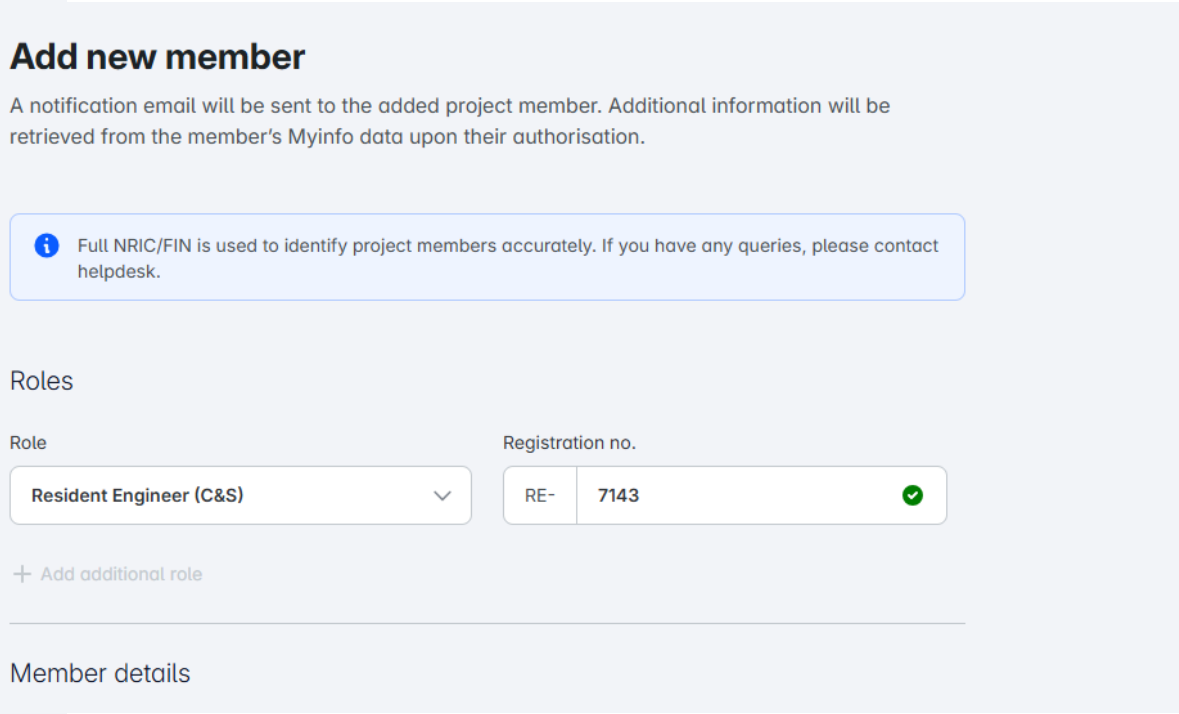


02 Acknowledgment for Member Addition

Acknowledgment for Member Addition

Project coordinator is responsible for adding the RE and RTO as project members under their respective roles.

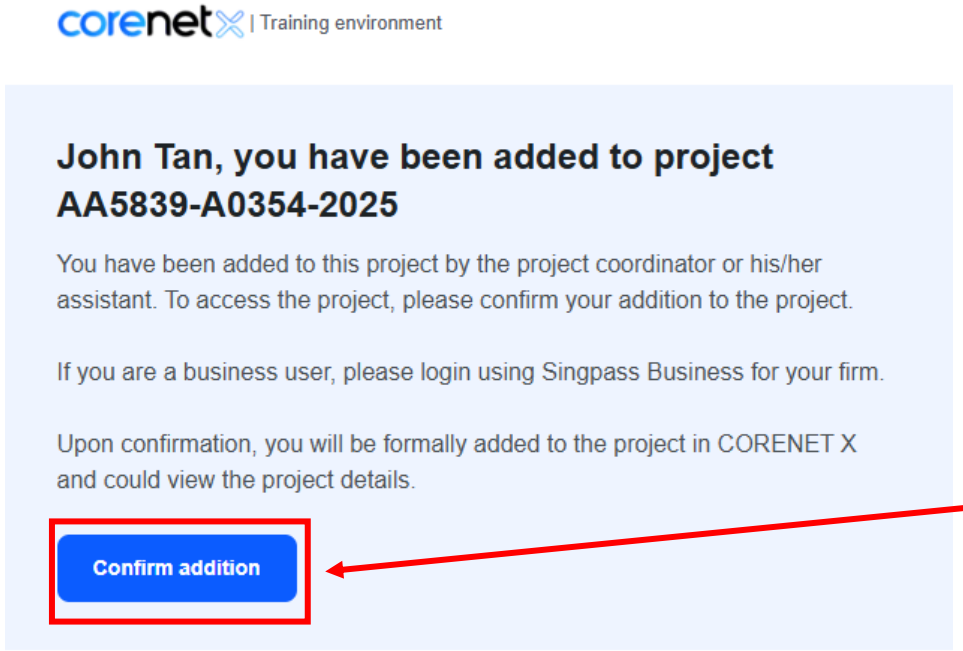




Acknowledgment for Member Addition

Once you have been added to the project, an email will be sent to the your specified email address.



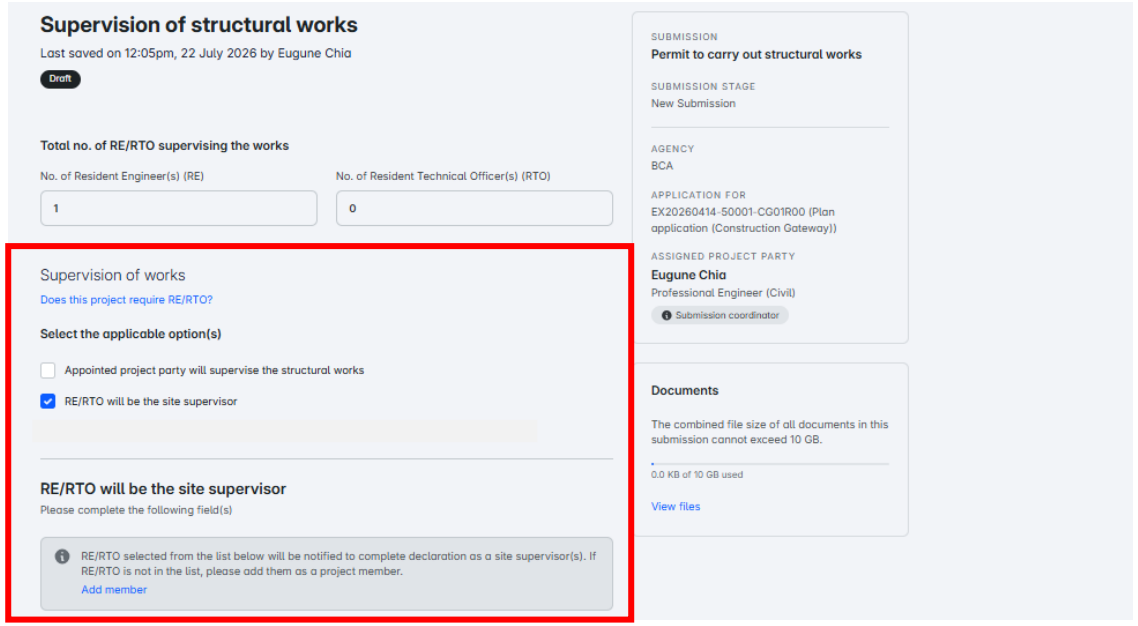


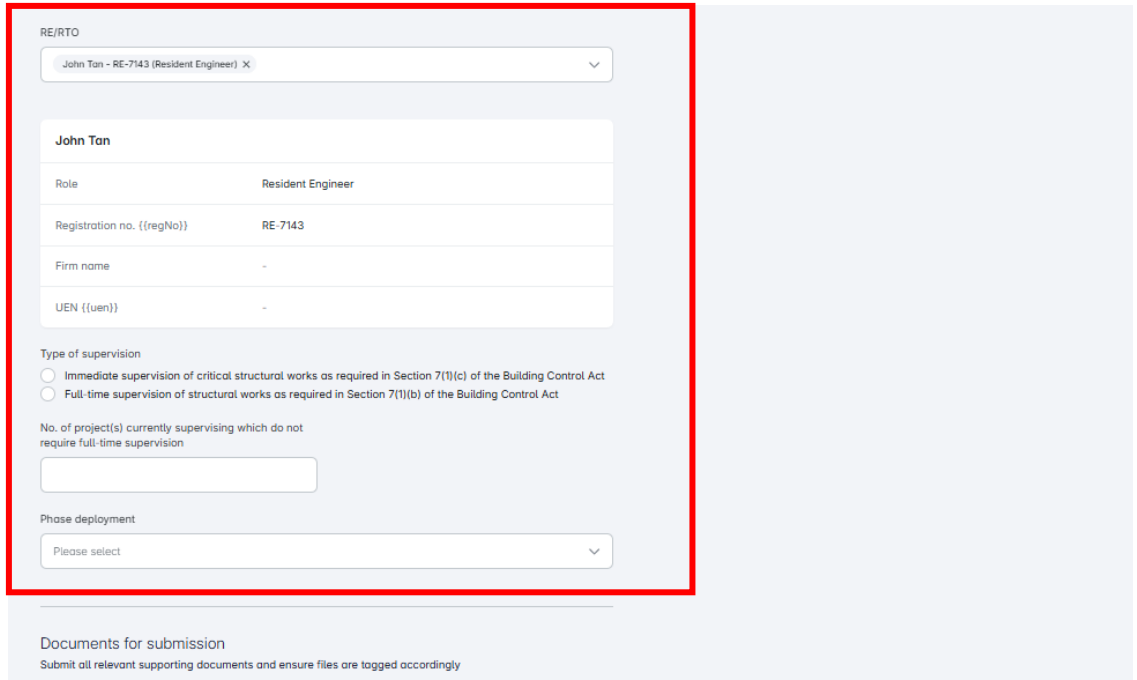
You need to click on “confirm addition” button in the email invite.

03 Making Declaration for Permit application

Making Declaration for Permit application

During permit application, QP Supervision (QPS) will indicate the site supervisor appointment details in the webform – Supervision of structural works.

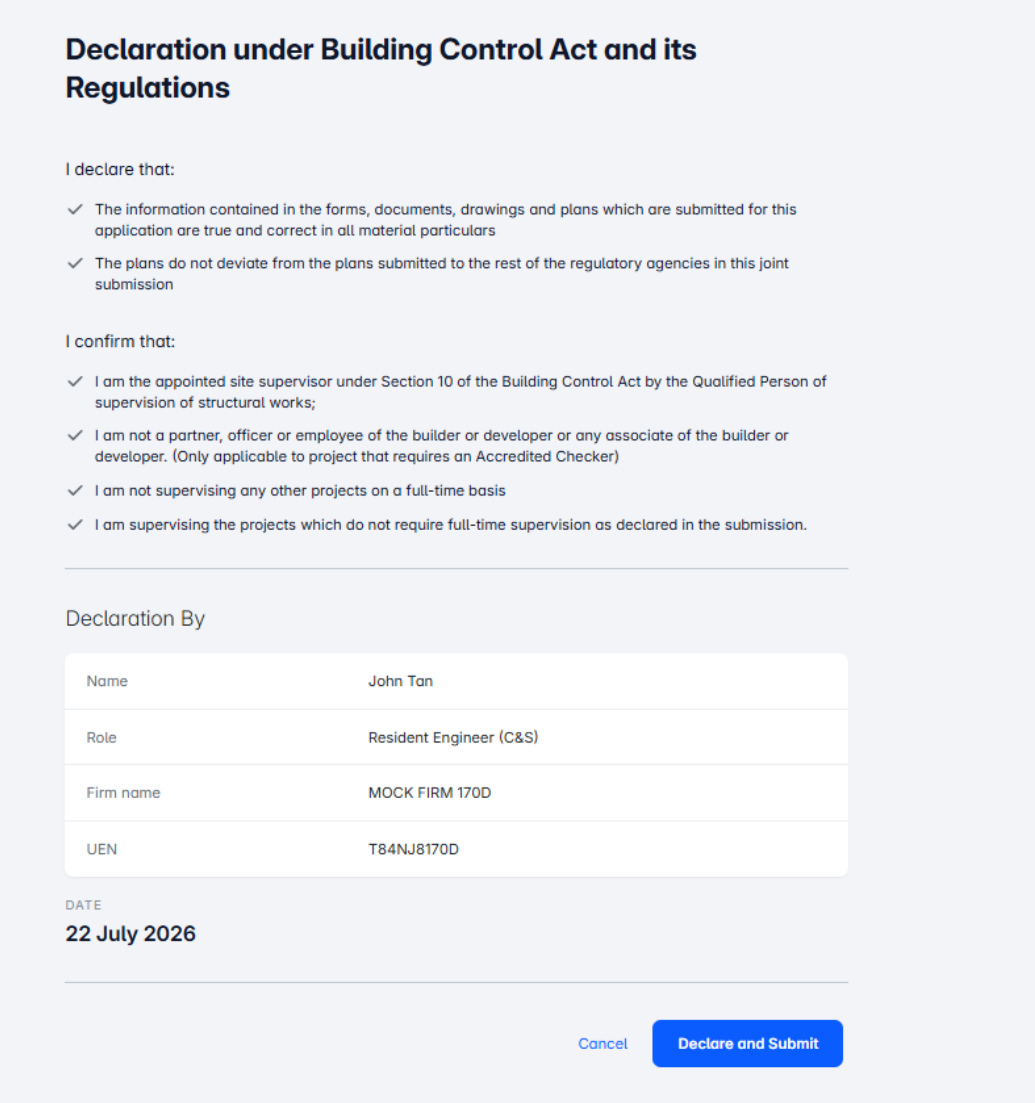




For the project with Geotechnical Building Works (GBW), the QP Supervision for GBW (QPS Geo) will also indicate the same site supervisor appointment details in the webform – Supervision of geotechnical building works.

Making Declaration for Permit application

RE and RTO are required to log in to the CORENET X system to submit their declarations digitally. No hardcopy signatures are needed.



Declaration under Building Control Act and its Regulations

I declare that:

- ✓ The information contained in the forms, documents, drawings and plans which are submitted for this application are true and correct in all material particulars
- ✓ The plans do not deviate from the plans submitted to the rest of the regulatory agencies in this joint submission

I confirm that:

- ✓ I am the appointed site supervisor under Section 10 of the Building Control Act by the Qualified Person of supervision of structural works;
- ✓ I am not a partner, officer or employee of the builder or developer or any associate of the builder or developer. (Only applicable to project that requires an Accredited Checker)
- ✓ I am not supervising any other projects on a full-time basis
- ✓ I am supervising the projects which do not require full-time supervision as declared in the submission.

Declaration By

Name	John Tan
Role	Resident Engineer (C&S)
Firm name	MOCK FIRM 170D
UEN	T84NJ8170D

DATE

22 July 2026

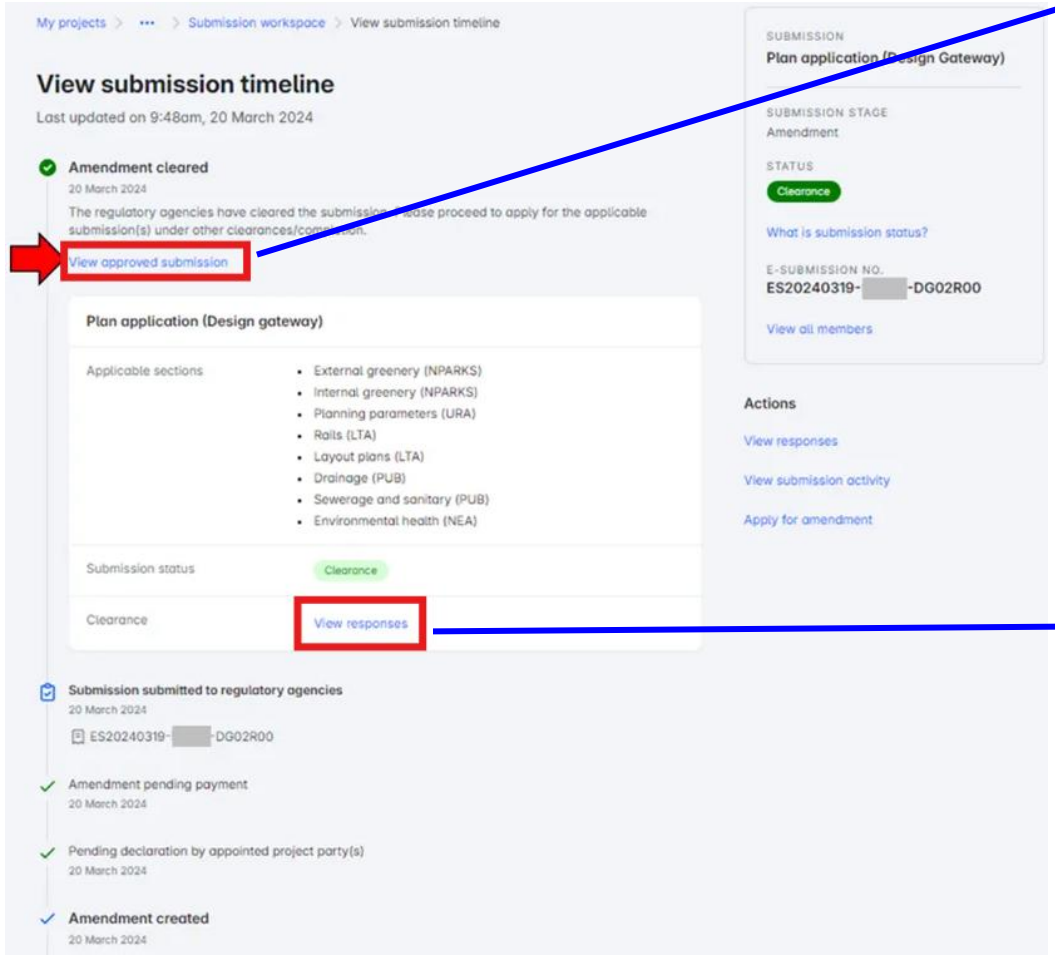
Cancel | Declare and Submit

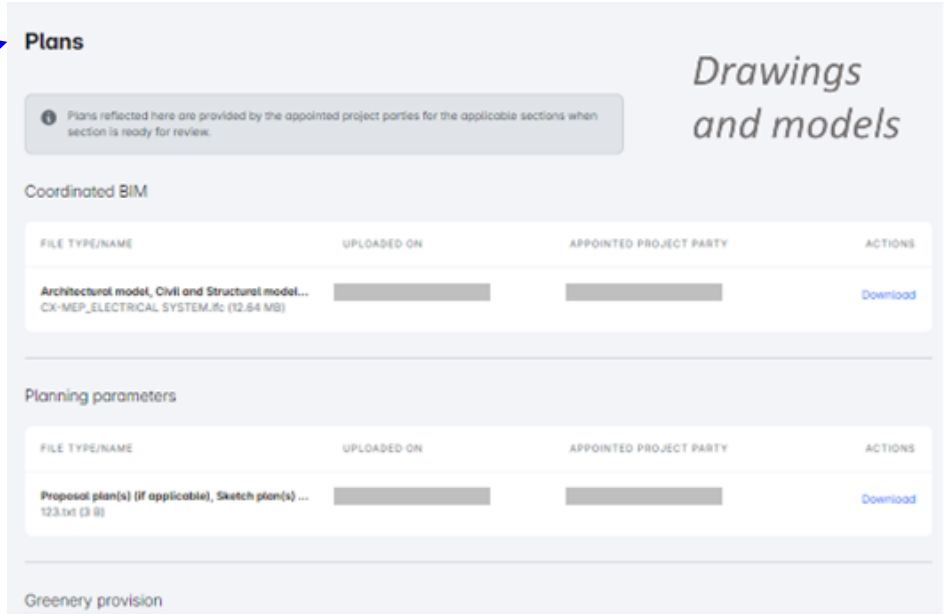
Whenever there is a change in the site supervision team, QPS is required to update the permit details accordingly. All site supervisors will then be prompted to submit their declarations for the updated permit.

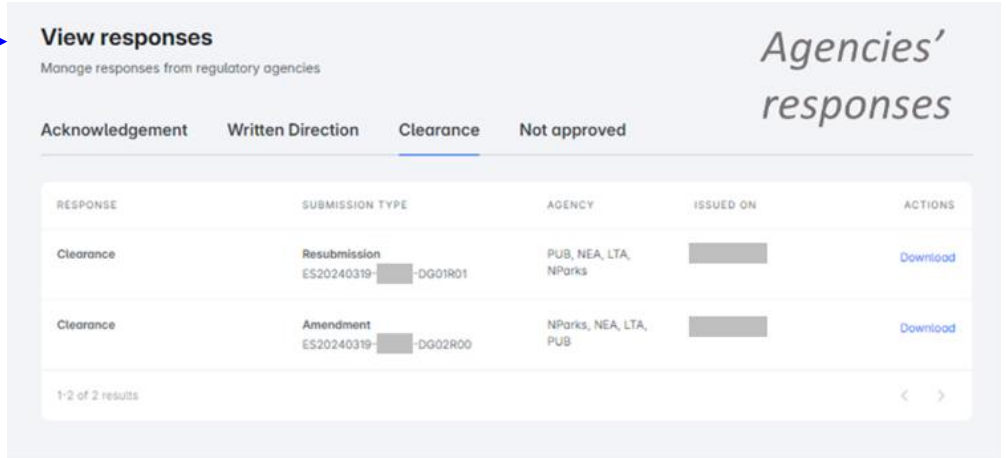
04 Plan Submission with associated Permit

Plan Submission with associated Permit

Once a submission is cleared, REs and RTOs will be able to view and download the approved plans and responses.

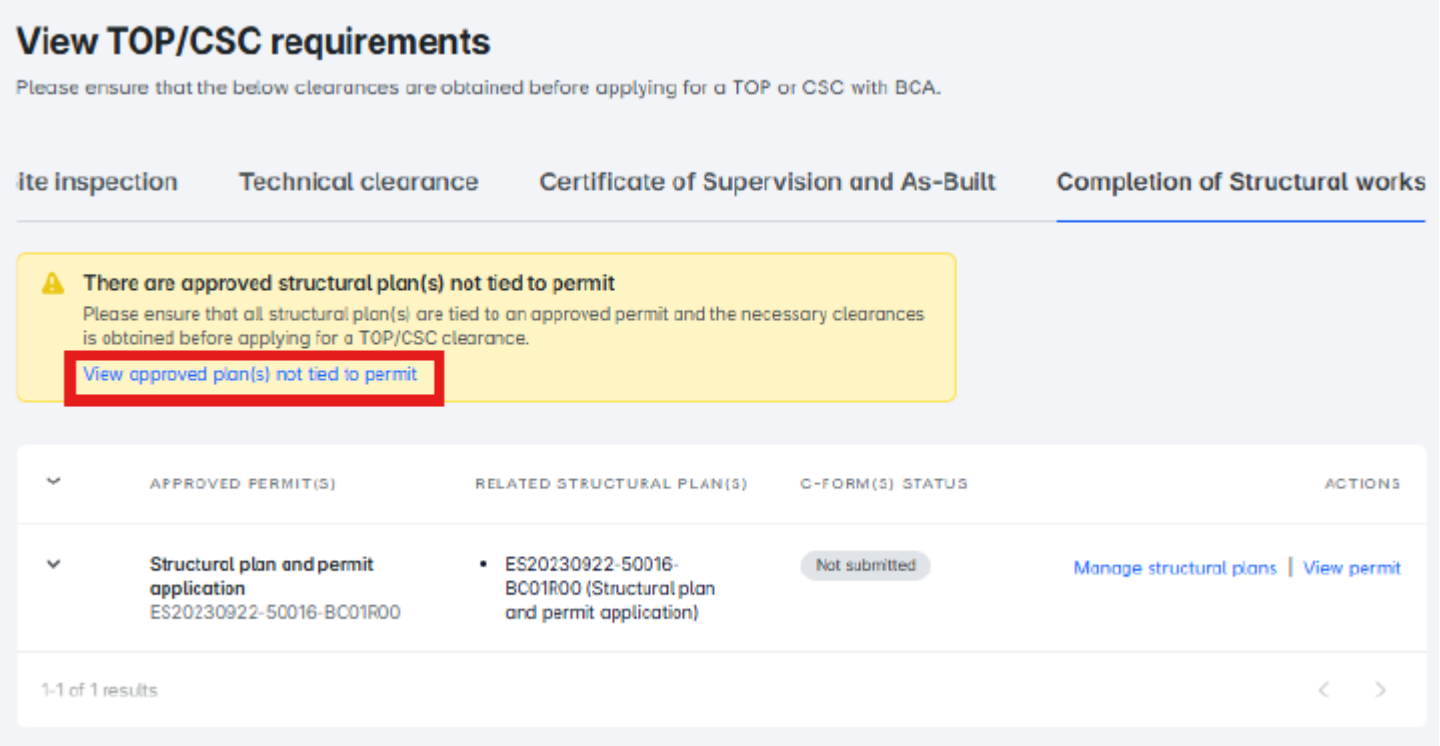






Plan Submission with associated Permit

REs and RTOs can verify whether the approved plans are pegged to a valid permit by checking the "View TOP/CSC Requirements" section under the submission milestone.

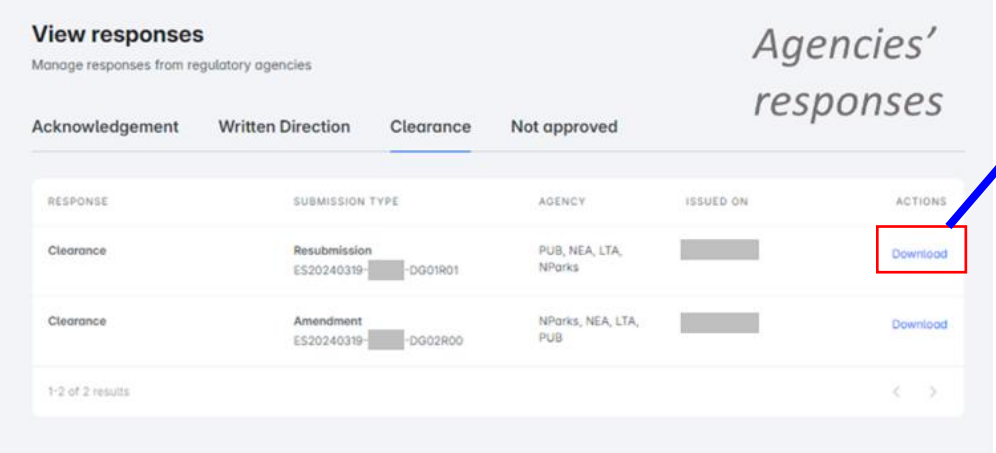


If the approved plans have not been tied to a permit, you may wish to seek clarification from your QPS to ensure that all supervised works are covered under a valid permit.

05 Verifying Approved Plan with Checksum

Verifying Approved Plans with Checksum

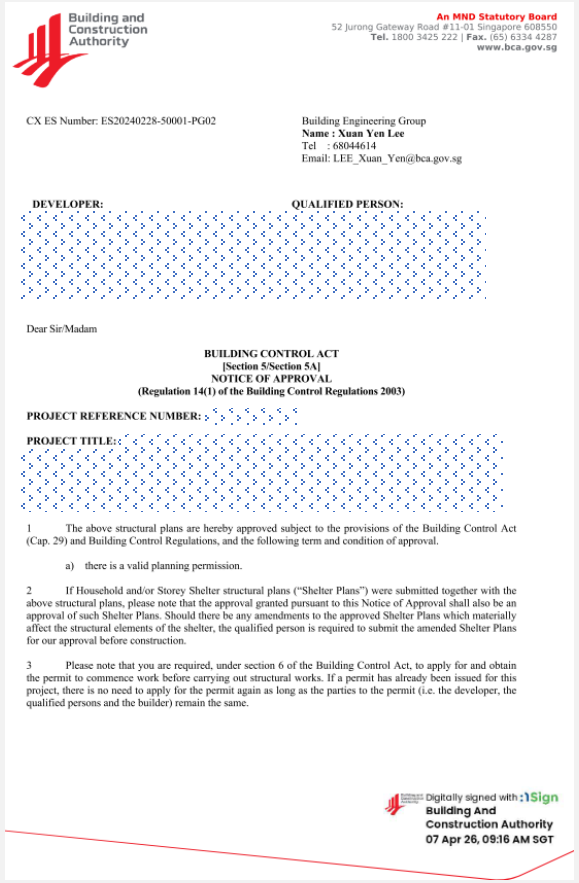
CORENET X (CX)



Site supervision team is required to verify that building works on site are constructed following Approved Plans

Clearance package

BCA – Notice of Approval (NOA)



Building and Construction Authority

An MND Statutory Board
52 Jurong Gateway Road #11-01 Singapore 608550
Tel. 1800 3425 222 | Fax. (65) 6334 4287
www.bca.gov.sg

CX ES Number: ES20240228-50001-PG02

Building Engineering Group
Name : Xuan Yen Lee
Tel : 68044614
Email: LEE_Xuan_Yen@bca.gov.sg

DEVELOPER:

QUALIFIED PERSON:

Dear Sir/Madam

BUILDING CONTROL ACT
[Section 5/Section 5A]
NOTICE OF APPROVAL
(Regulation 14(1) of the Building Control Regulations 2003)

PROJECT REFERENCE NUMBER:

PROJECT TITLE:

1 The above structural plans are hereby approved subject to the provisions of the Building Control Act (Cap. 29) and Building Control Regulations, and the following term and condition of approval.

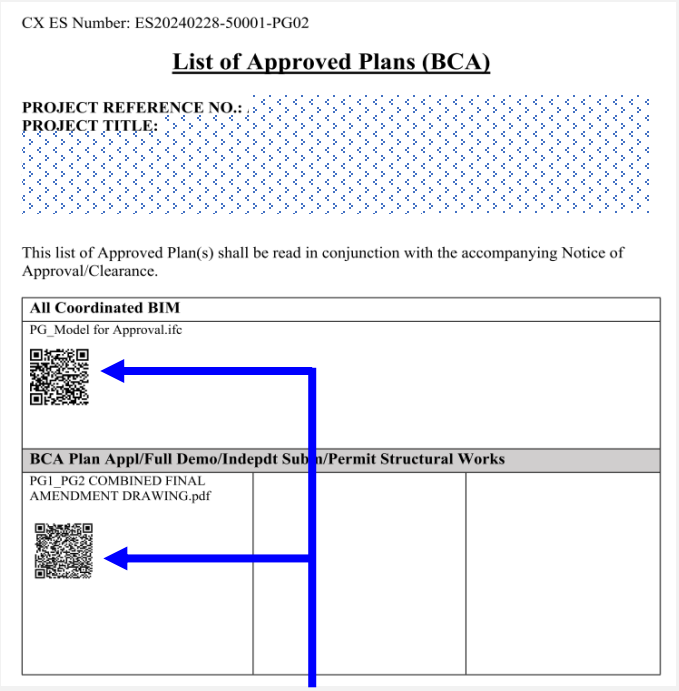
a) there is a valid planning permission.

2 If Household and/or Storey Shelter structural plans ("Shelter Plans") were submitted together with the above structural plans, please note that the approval granted pursuant to this Notice of Approval shall also be an approval of such Shelter Plans. Should there be any amendments to the approved Shelter Plans which materially affect the structural elements of the shelter, the qualified person is required to submit the amended Shelter Plans for our approval before construction.

3 Please note that you are required, under section 6 of the Building Control Act, to apply for and obtain the permit to commence work before carrying out structural works. If a permit has already been issued for this project, there is no need to apply for the permit again as long as the parties to the permit (i.e. the developer, the qualified persons and the builder) remain the same.

Digitally signed with :1Sign
Building And Construction Authority
07 Apr 26, 09:16 AM SGT

BCA – List of Approved Plan (BCA)



CX ES Number: ES20240228-50001-PG02

List of Approved Plans (BCA)

PROJECT REFERENCE NO.:
PROJECT TITLE:

This list of Approved Plan(s) shall be read in conjunction with the accompanying Notice of Approval/Clearance.

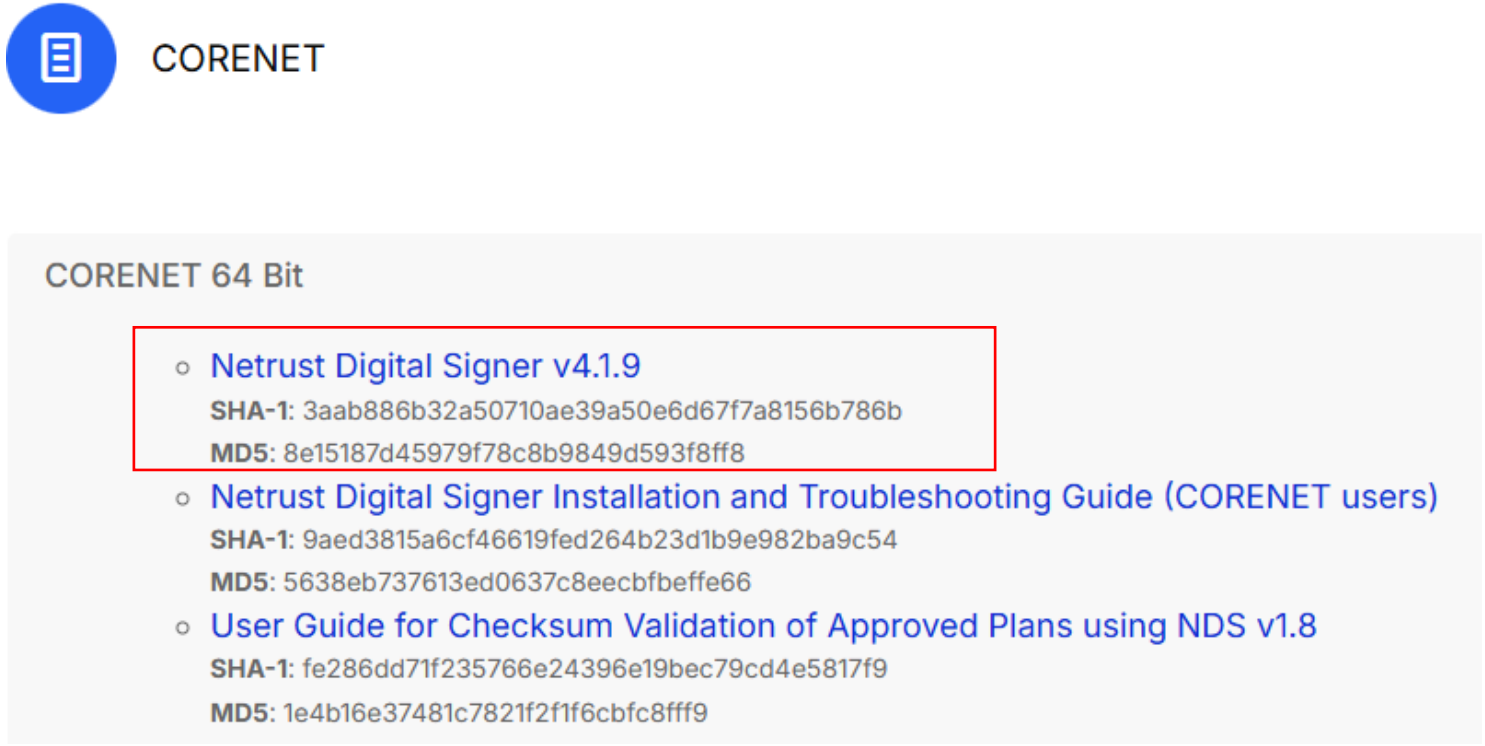
All Coordinated BIM		
PG_Model for Approval.ifc		
BCA Plan Appl/Full Demo/Indepdt Sub'n/Permit Structural Works		
PG1_PG2 COMBINED FINAL AMENDMENT DRAWING.pdf		

Checksum (digital ID) of file embedded in QR code

Verifying Approved Plans with Checksum

How do I verify that the BIM/2D file is the Approved Plans?

Verification with Netrust Digital Signer (NDS)

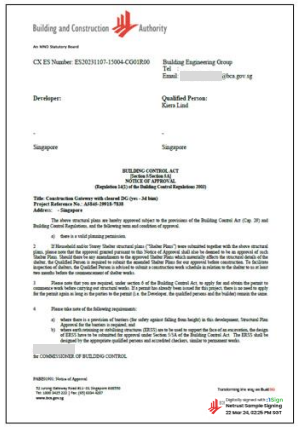


Download link: [Downloads - Netrust]

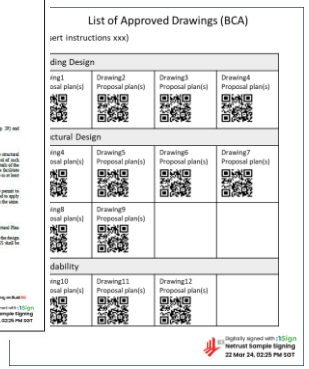
Verifying Approved Plans with Checksum

How do I verify that the BIM/2D file is the Approved Plans?

Verification with Netrust Digital Signer (NDS)


Building and Construction Authority

BUILDING CONTROL ACT
NOTICE OF APPROVAL


List of Approved Drawings (BCA)

NOA Letter

IFC BIM files

Clearance package downloaded from CORENET X

Submission package provided by QP or downloaded from CORENET X

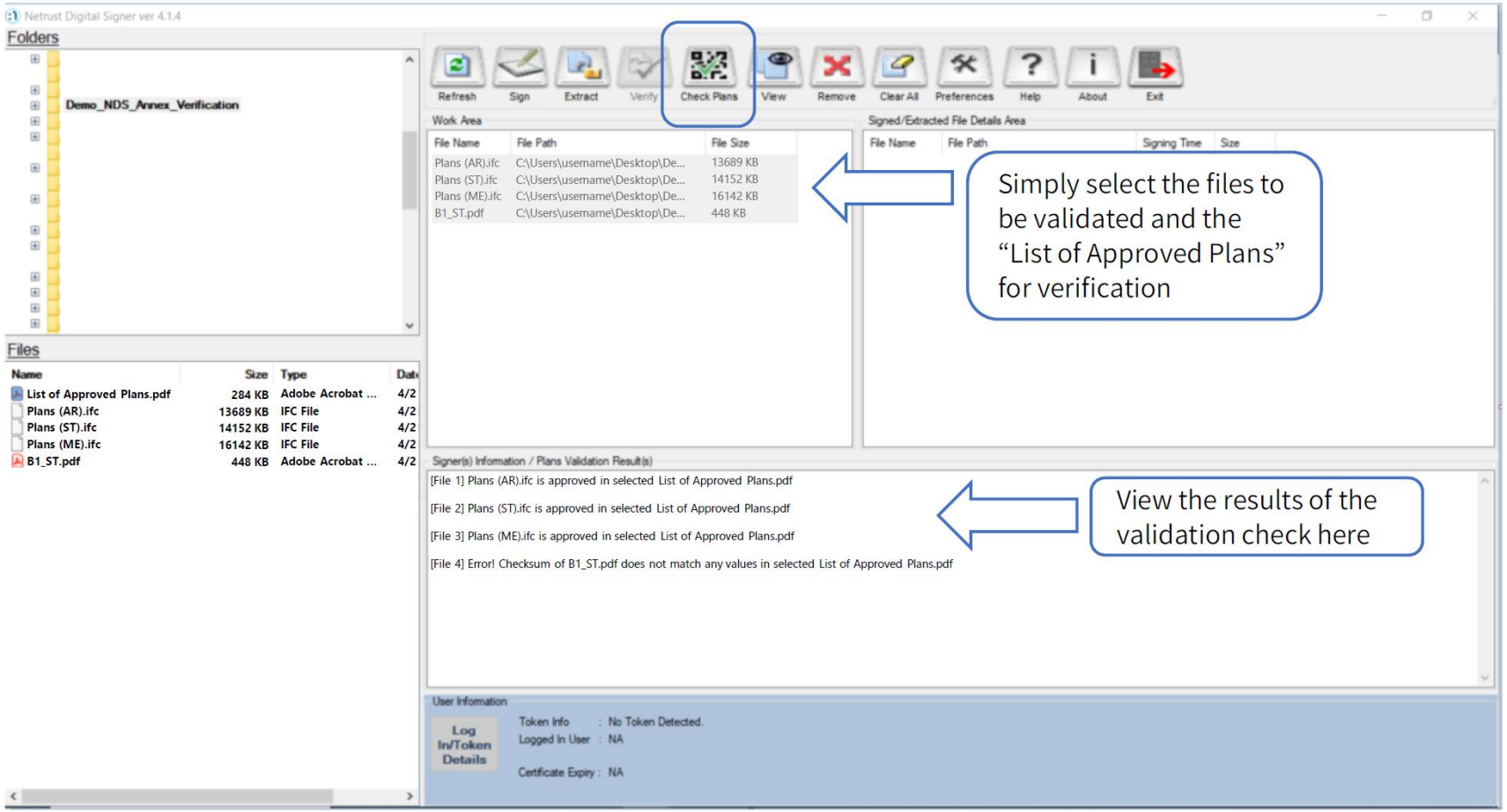
SignCore DESKTOP

Netrust app used for digital signing by QPs (enhanced by CORENET X in partnership with Netrust)

Verifying Approved Plans with Checksum

How do I verify that the BIM/2D file is the Approved Plans?

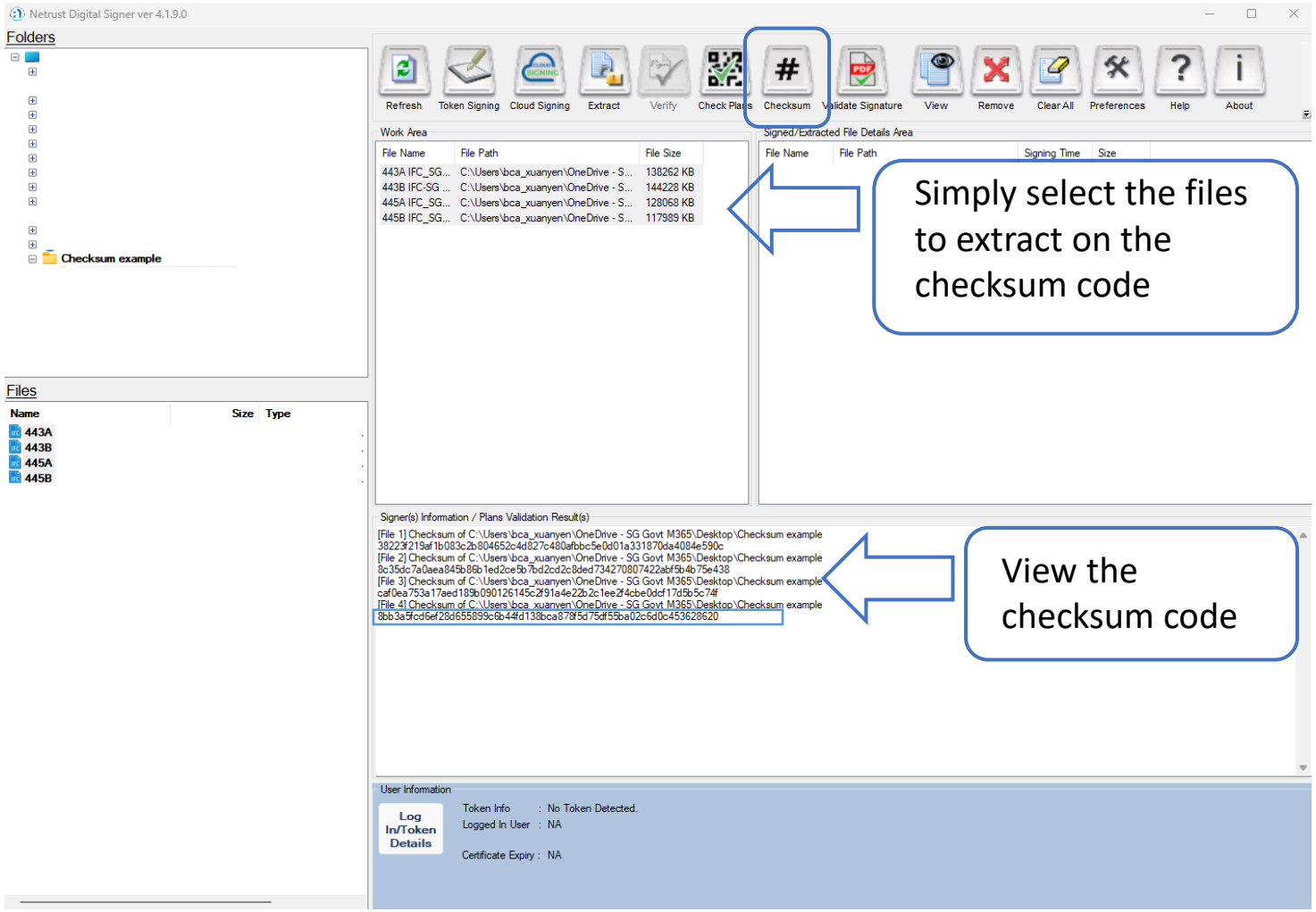
Verification with Netrust Digital Signer (NDS)

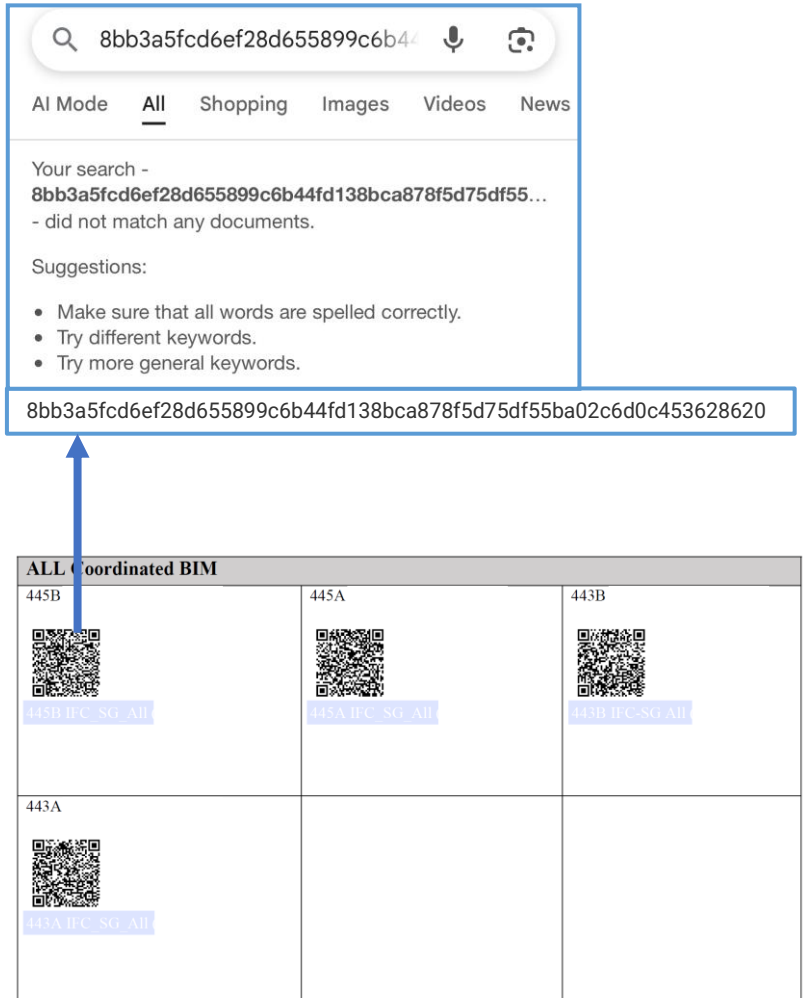


Verifying Approved Plans with Checksum

How do I verify that the BIM/2D file is the Approved Plans?

Verification with Netrust Digital Signer (NDS)





Thank You!