



Fire Safety Seminar



Regulatory Reforms II : Enhancing Safety & Efficiency

WELCOMING ADDRESS





Fire Safety Seminar

FEB 2007



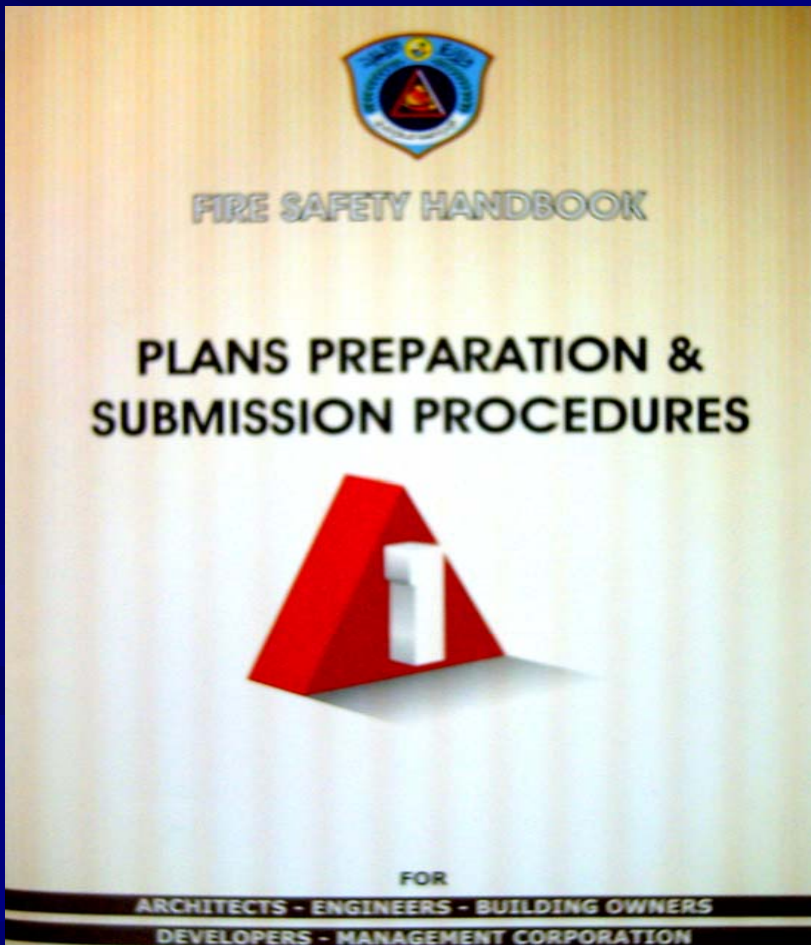
PLANS PREPARATION & SUBMISSION PROCEDURES

By Heng Chai Liang (Senior Consultant to CDD)



HANDBOOK 1

Plans Preparation and Submission Procedures



QATAR CIVIL DEFENCE DEPARTMENT



SCOPE

- **Preparation of plans for approval**
- **Submission procedures for plans approval, consultation and waiver applications**
- **Assignment of reference numbers for these applications**
- **Application forms**



PLANS PREPARATION

QATAR CIVIL DEFENCE DEPARTMENT



PREPARATION OF PLANS FOR APPROVAL

- 1) The following plans shall be submitted to CDD:
 - i) Building Plan (BP) and where applicable,
 - ii) Air-conditioning & Mechanical Ventilation Plan (MV)
 - iii) Fire Protection Plan (FP)



PREPARATION OF PLANS FOR APPROVAL

- **Building Plans**

e.g. site planning, means of escape, structural fire protection, etc.





PREPARATION OF PLANS FOR APPROVAL

- **Air-conditioning & Mechanical Ventilation Plans**
e.g. smoke purging system, engineered smoke control system, etc.

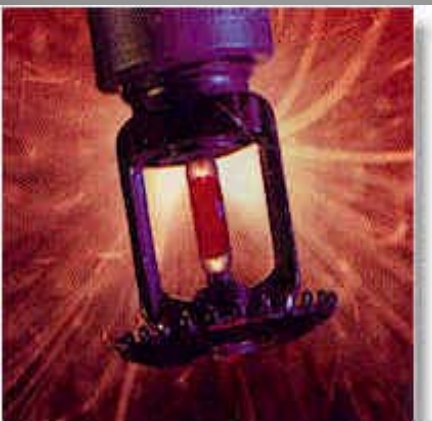




PREPARATION OF PLANS FOR APPROVAL

- **Fire Protection Plans**

e.g. sprinkler system, automatic alarm system, fire hose reels, wet and dry rising mains, etc.





PREPARATION OF PLANS FOR APPROVAL

Current situation :

- i) Separate submissions for all the 3 types of plans ✓
- ii) All the 3 types of plans submitted as a single plan
- iii) Not all 3 types of plans submitted



PREPARATION OF PLANS FOR APPROVAL

Note :

- i) Upon approval of the fire safety plans, any subsequent change made to the approved fire safety design should be followed up with a submission of amendment plans to reflect the change.



PREPARATION OF PLANS FOR APPROVAL

2) The documents accompanying the plans shall be as follows:

Types of plan submission

Building Plan	Fire Protection Plan	Air-conditioning & Mechanical Ventilation Plan
<ul style="list-style-type: none"> • 2 sets of hardcopy plans and 1 softcopy; • Application form; • Practicing certificate of consultant; • Occupancy load and exit capacity calculations; • Unprotected opening calculation; and • Other supporting documents, if any. 	<ul style="list-style-type: none"> • 2 sets of hardcopy plans and 1 softcopy; • Application form; • Practicing certificate of consultant; • Sprinkler hydraulic calculation where applicable; and • Other supporting documents, if any. 	<ul style="list-style-type: none"> • 2 sets of hardcopy plans and 1 softcopy; • Application form; • Practicing certificate of consultant; • Pressurization staircase calculation where applicable; • Smoke control calculation where applicable; and • Other supporting documents, if any.



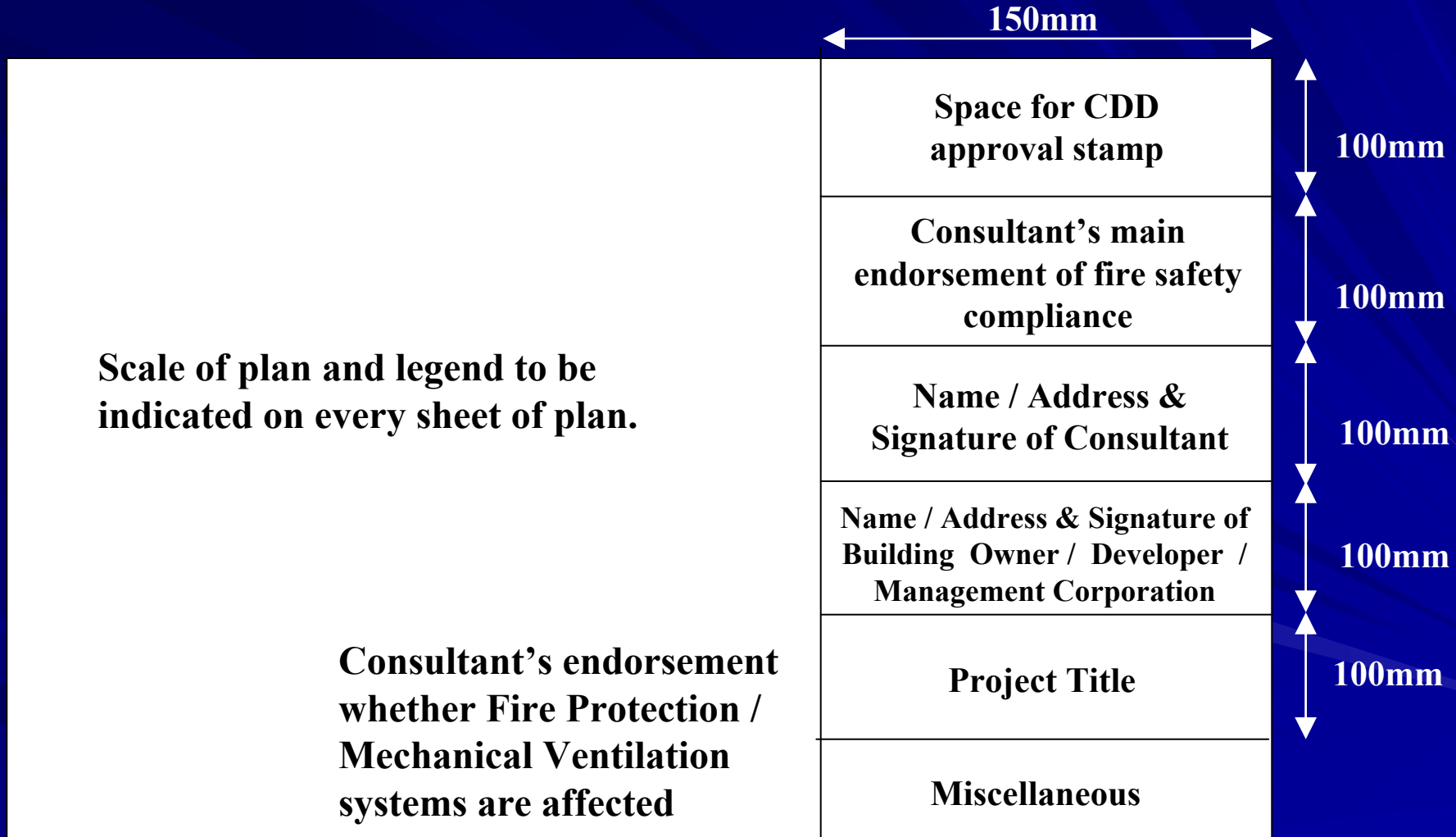
PREPARATION OF PLANS FOR APPROVAL

- 3) Plans shall be submitted on standard metric size sheets of the international A series;
- 4) Plans shall have on every sheet an outlined rectangular space measuring 150mm x 100mm provided at its top right hand corner for CDD official stamps and endorsement;
- 5) Plans shall have title blocks showing the project title, full names, addresses and signatures of the project consultant and the Building Owner / Developer / Management Corporation;



PREPARATION OF PLANS FOR APPROVAL

Illustration showing Format of Plan of Fire Safety Works

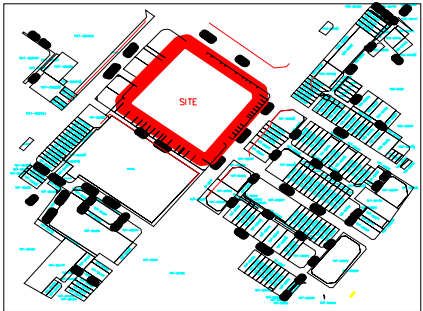




PREPARATION OF PLANS FOR APPROVAL

6) Plans to contain site plan and location plan

Location Plan



LOCATION PLAN
NOT TO SCALE

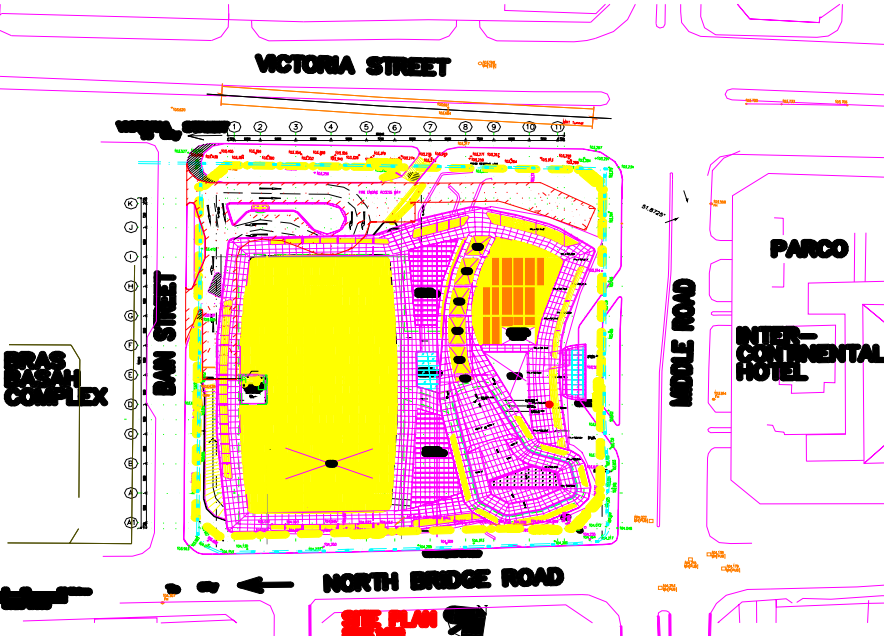
NO. OF CARPARK LOTS:
 NO. OF CARPARK LOTS AT BASEMENT 3 = 146
 NO. OF HANDICAPPED CARPARK LOTS AT BASEMENT 3 = 1
 NO. OF CARPARK LOTS AT BASEMENT 2 = 76
 NO. OF HANDICAPPED CARPARK LOTS AT BASEMENT 2 = 1
 NO. OF CARPARK LOTS AT 1ST STOREY = 1
 TOTAL NO. OF CARPARK LOTS = 225

FOR THE DEVELOPER/OWNER, ACCESSORY TO MAINTAIN THE EXISTING ROADWAY DRAIN AND PROPOSED BOX COVER DRAINING ALONG BANK STREET WITHIN THE DEVELOPMENT SITE, TO BE GOOD AND FREE FLOWING CONDITION AT ALL TIMES.

OWNER'S ENDORSEMENT
 UNDERSIGNED HAS TO COMPLY REQUIREMENTS AS STATED IN SECTION 4.1.2 (a) CODED (2000 EDITION) FOR DISCHARGE INTO A PUBLIC SEWER.

NO.	DESCRIPTION	DATE	BY	FOR	REMARKS
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Site Plan



SITE PLAN

PROPOSED DIRECTION OF NEW NATIONAL LIBRARY COMPRISING 1 BLOCK 15 STOREY LIBRARY BLOCK WITH A SPINA SEATING AND LANE TO A 16 STOREY LIBRARY PROGRAMMING BLOCK BUILDING WITH 2 BASEMENTS OR LOT 6128 TO 11 AT VICTORIA STREET

LOCATION PLAN
SITE PLAN

NO. OF ENDORSEMENTS ON PROPOSAL PLAN: 1

DATE OF ENDORSEMENT: 2024/08/01

BY: [Signature]

FOR: [Signature]

REMARKS: [Text]

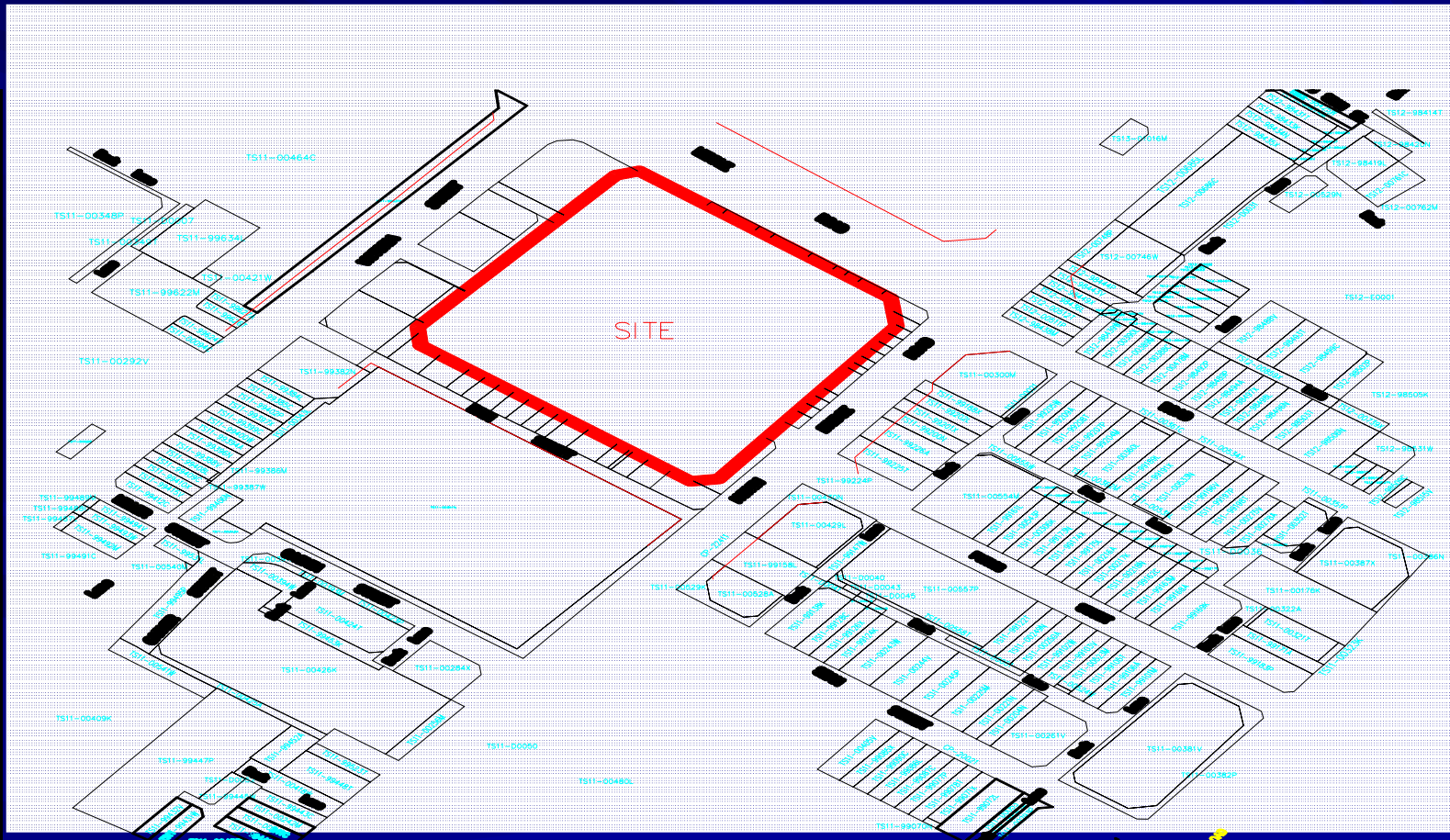


PREPARATION OF PLANS FOR APPROVAL

Cont'd

E.g. Location plan

- the coloured location of the lot relative to the neighbouring lots
- the various roads constituting the access layout of the lot.



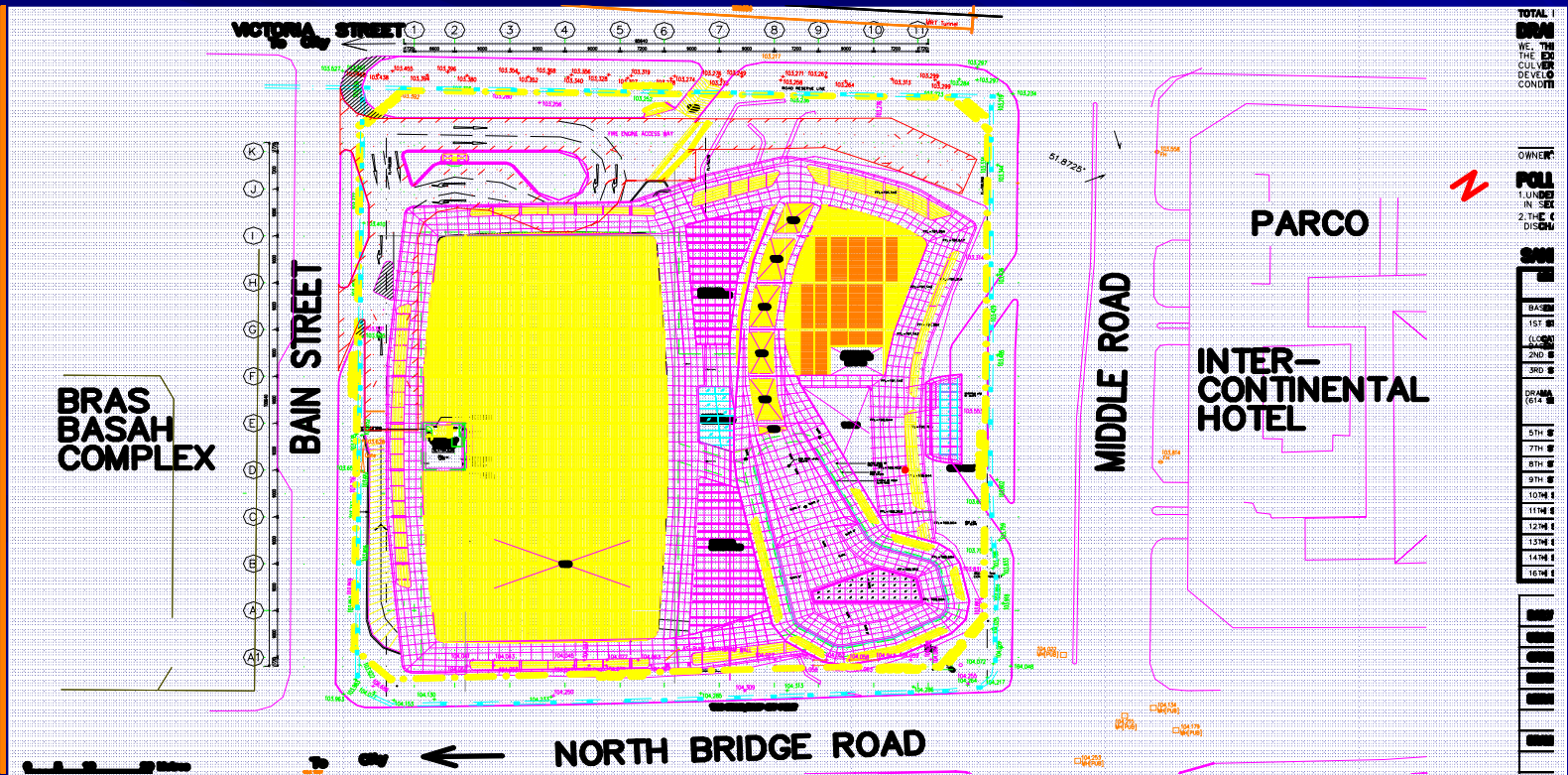


PREPARATION OF PLANS FOR APPROVAL

Cont'd

E.g. Site plan

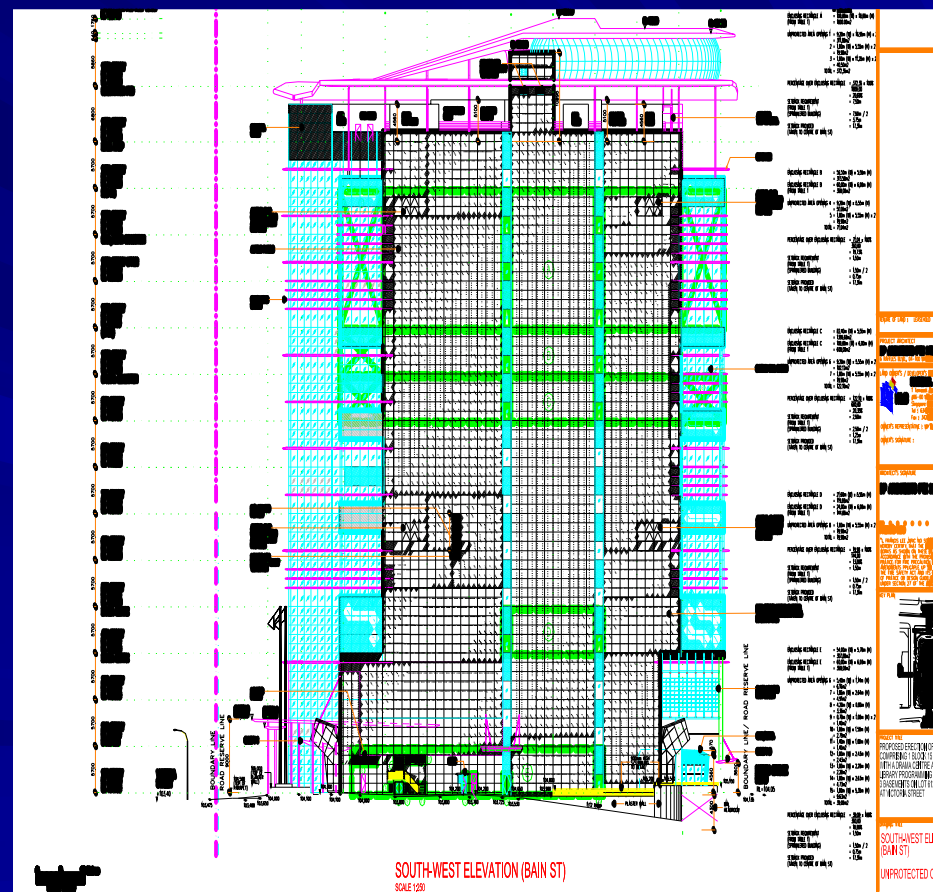
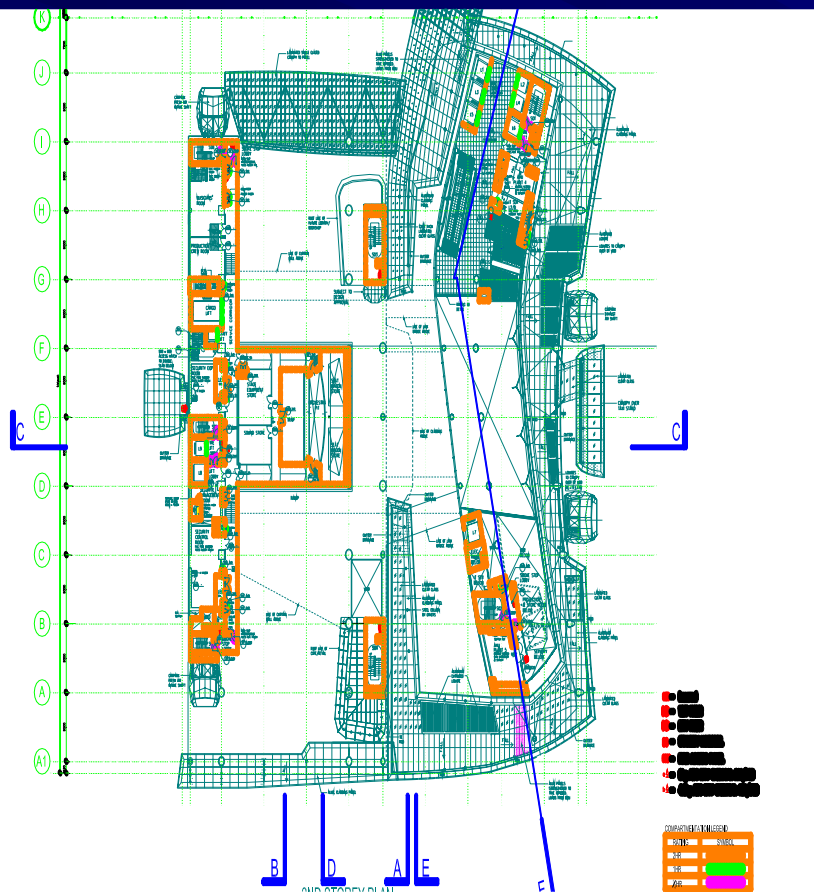
- means of access to the site and to the perimeter of each building for fire fighting vehicles;
- position and size of Fire Engine Hardstanding;
- location of existing public fire hydrants or internal private fire hydrants.





PROBLEMS ENCOUNTERED WITH PLANS SUBMISSION

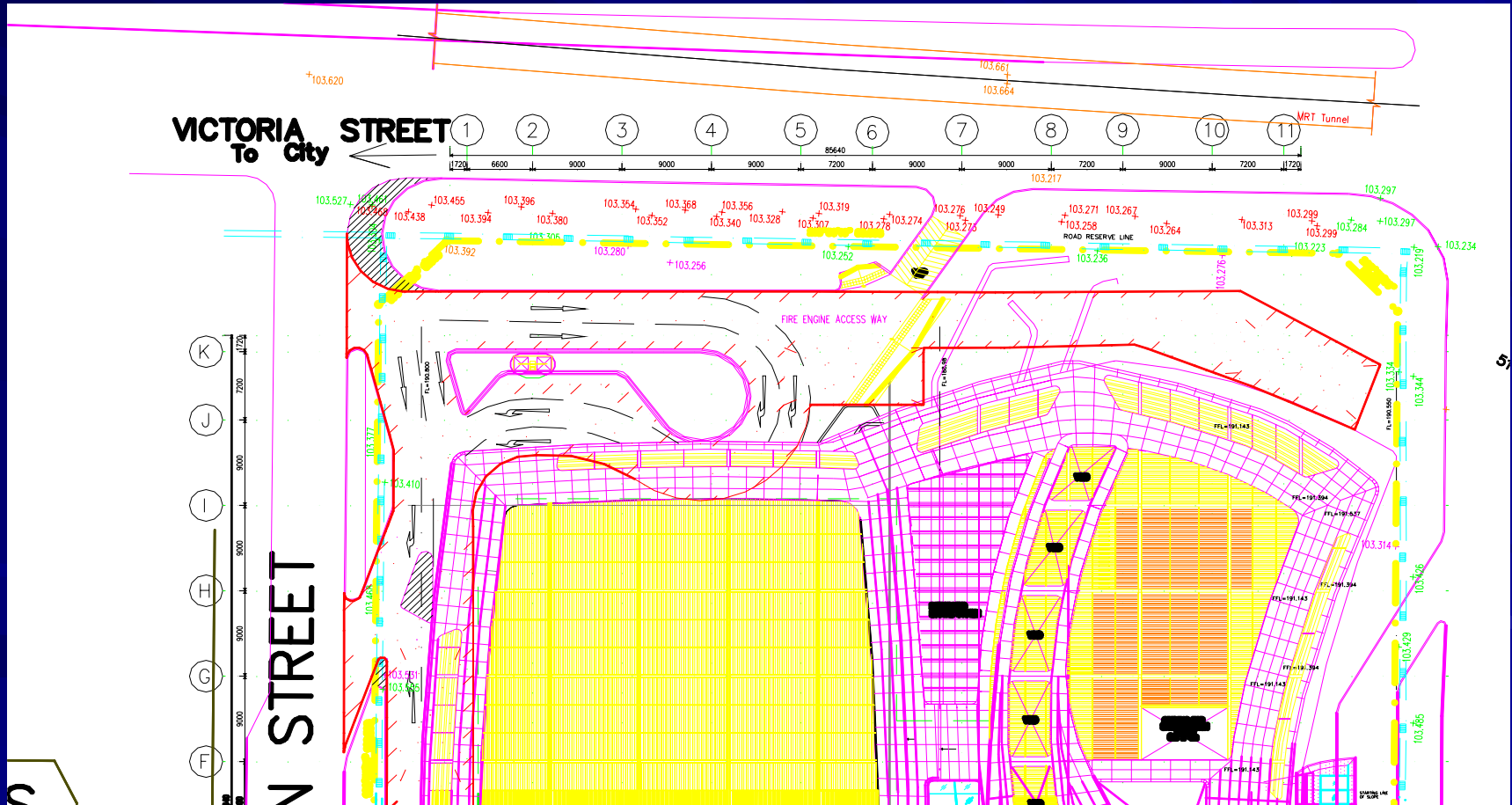
7) Plans to contain detailed layout plan including sectional and elevational views





PREPARATION OF PLANS FOR APPROVAL

8) Gridlines and dimensions to be shown in the drawings










PREPARATION OF PLANS FOR APPROVAL

9) Plans to contain proper legend & annotations in accordance with NFPA 170

- Fire Protection Symbols
- Fire Protection Symbols

- HR** – **hosereel**
- WR** – **WET RISER**
- DR** – **DRY RISER**
- SH** – **STANDBY HOSEREEL**
- FAP** – **FIRE ACCESS PANEL**
- a**  – **9kg ABC DRY CHEMICAL 21A/70B**
- b**  – **4.5kg ABC DRY CHEMICAL 13A/55B**

COMPARTMENTATION LEGEND

RATING	SYMBOL
2HR	
1HR	
1/2HR	



PREPARATION OF PLANS FOR APPROVAL

10) Plans to be drawn to appropriate scale, i.e.

- Location plan with ratio of at least 1:1000
- Site plan with ratio of at least 1:500
- Floor plan and roof plan with ratio of 1:100 or 1:200
- Cross-sectional drawings with ratio of 1:100 or 1:200
- Elevational drawings with ratio of at least 1:200



PREPARATION OF PLANS FOR APPROVAL

11) All proposed works, such as exit passageways, compartmentation, fire protection and mechanical ventilation systems, shall be shown coloured on plan and these shall be differentiated from deletion works, if any. And if renovation works are to be carried out, these works shall be differentiated from existing works.



PREPARATION OF PLANS FOR APPROVAL

- 12) Type of standards used for fire-related materials / equipments e.g. UL listed / FM approved.
- 13) Plans shall be prepared in accordance with NFPA 101. Should other codes be used, prior approval must be obtained from the Qatar Civil Defence, stating the areas of application and reasons.



PREPARATION OF PLANS FOR APPROVAL

14) WAIVER MECHANISM

- Avenue for applicant to write in to CDD to waive specific fire safety requirement.
 - Specific provision in fire code to be waived
 - Strong justifications for request
 - Alternative proposals to make up for the shortfall in fire safety



PREPARATION OF PLANS FOR APPROVAL

15) Endorsements on Building Plan:

(1st endorsement)

“ I _____
Identification Card No. / Passport No. _____ being a
consultant hereby certify that the fire safety works as shown on
these plans have been designed in accordance with the provisions
of the *NFPA 101 / _____
(other relevant codes and standards), subject to waivers granted by
the Managing Director of Qatar Civil Defence.

Name and signature of consultant

Address of consultant

Date

* Delete where applicable”

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PREPARATION OF PLANS FOR APPROVAL

Cont'd

(2nd Endorsement)

> 'The fire safety works shown on this building plan do not affect the fire protection system and mechanical ventilation system in the building.'

OR

> 'The fire safety works shown on this Building Plan affect the *fire protection system / *mechanical ventilation system in the building and the *FP Plan / *ACMV Plan will be submitted separately within 45 days from the date of submission of the Building Plan.'

*Delete where applicable'

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PREPARATION OF PLANS FOR APPROVAL

Cont'd

Endorsements on FP/ACMV Plan:

“I, _____ Identification Card No. /
Passport No. _____ being a consultant hereby certify that
the proposed _____ system
has been designed in accordance with the provisions of
_____ (*please state the code used*).

Name and signature of consultant

Address of consultant

Date

* Delete where applicable”

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PREPARATION OF PLANS FOR APPROVAL

16) Qualification of Consultant to undertake endorsement on BP, FP and ACMV plans as follows:

Qualification of Consultants for Endorsement of Building Plans, Mechanical Ventilation & Fire Protection Plans

S/N	Building Type	Description	Type of Project	Discipline of Consultant
1	Residential, Institutional, Commercial	Building Plans	a New building/ reconstruction/ extension of building	Registered Architect
			b Addition & Alteration & Change of use to building	Registered Architect or Registered Engineer (Civil/ Structural)
2	Factory & Storage	Building Plans	a New building/ reconstruction/ extension of building	Registered Architect or Registered Engineer (Civil/ Structural)
			b Addition & Alteration & Change of use to building	
3	All	Mechanical Ventilation Plans	Registered Engineer (Mechanical)	
4	All	Automatic fire alarm system plans	Registered Engineer (Mechanical or Electrical)	
5	All	Automatic sprinkler & Fixed water spray/ foam system plans	Registered Engineer (Mechanical)	
6	All	Rising mains & fire hosereel system plans	Registered Engineer (Mechanical or Civil)	



PREPARATION OF PLANS FOR APPROVAL

Note: To refer to Fire Safety Handbook for additional information to be shown on the various types of plans



SUBMISSION PROCEDURES

- Plans approval application
- Consultation application
- Waiver application



PLANS APPROVAL PROCEDURE

For BP, FP and MV plans

Abbreviation:

CSC – Customer Service Counter

CDD – Civil Defence Department

BPC – Building Permit Complex

Optional – See flowchart

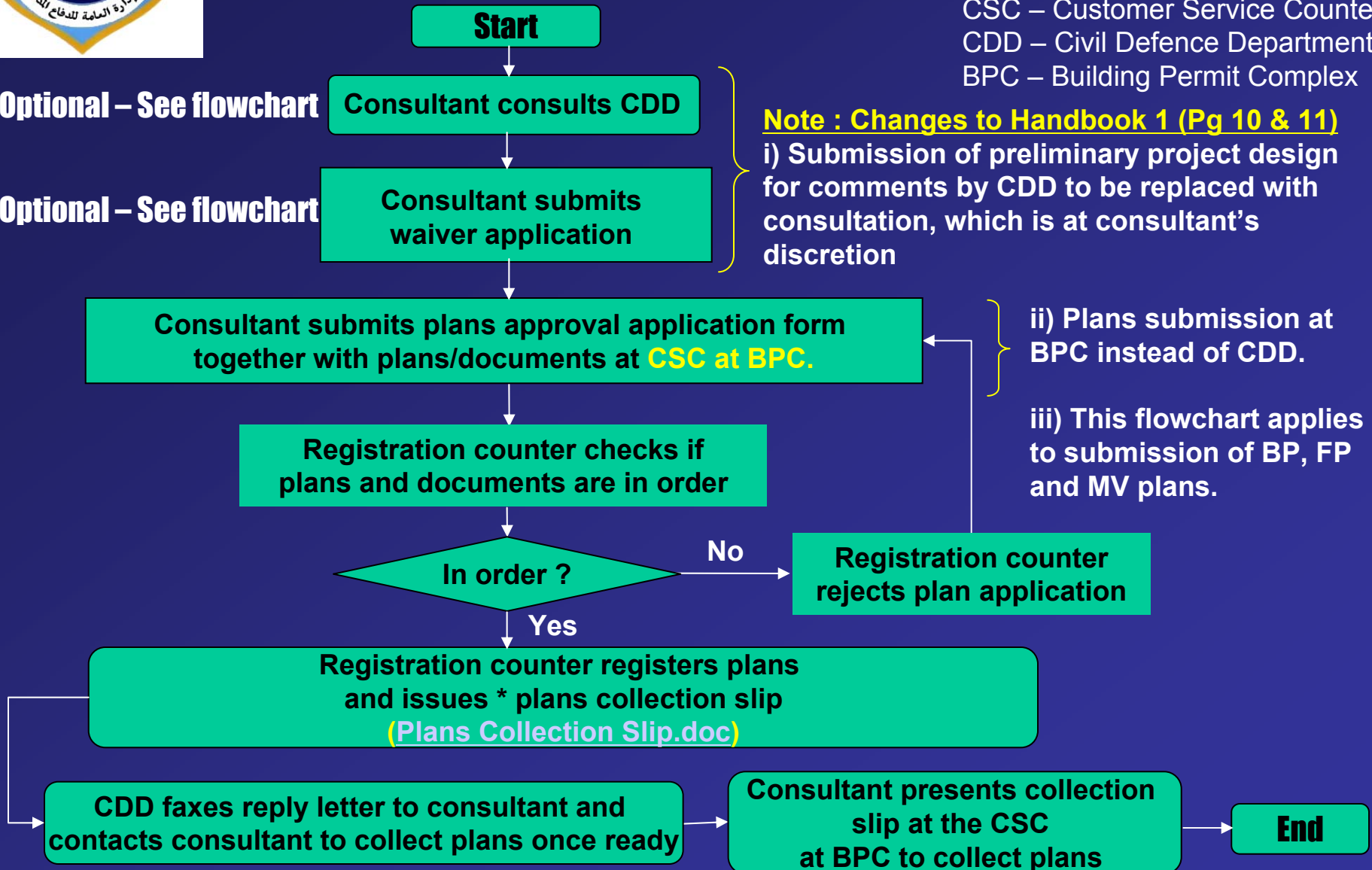
Optional – See flowchart

Note : Changes to Handbook 1 (Pg 10 & 11)

i) Submission of preliminary project design for comments by CDD to be replaced with consultation, which is at consultant's discretion

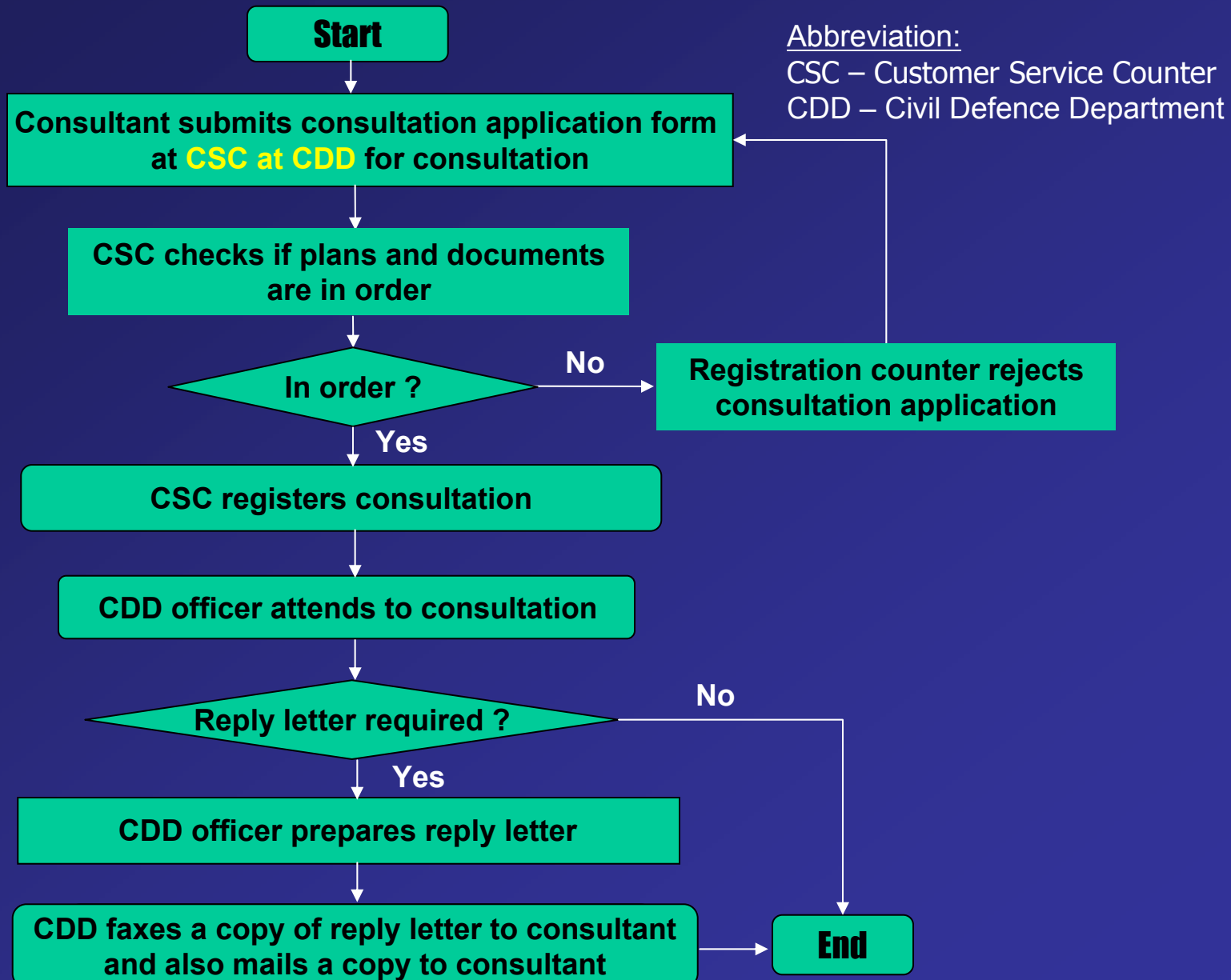
ii) Plans submission at BPC instead of CDD.

iii) This flowchart applies to submission of BP, FP and MV plans.





CONSULTATION PROCEDURE





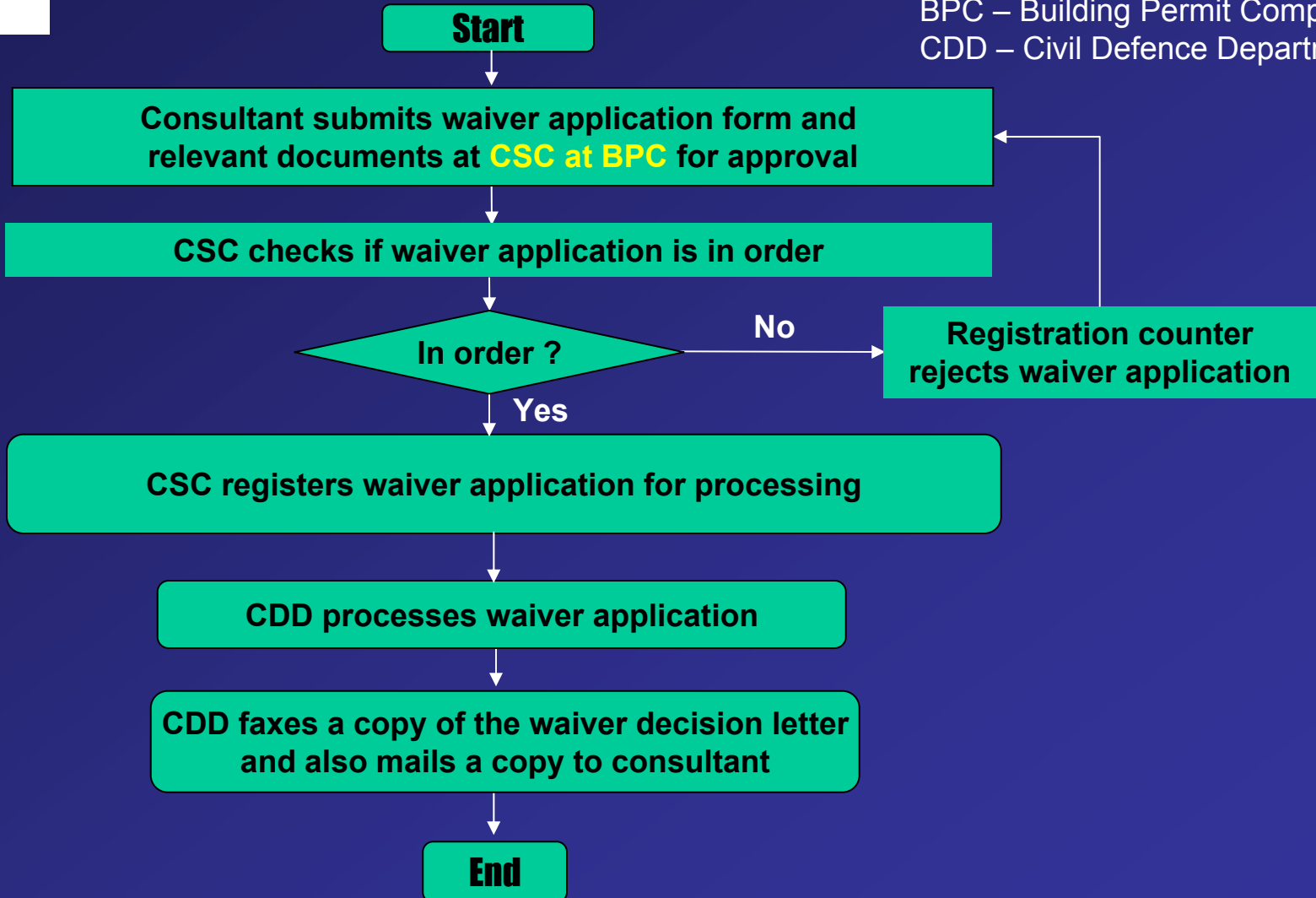
WAIVER PROCEDURE

Abbreviation:

CSC – Customer Service Counter

BPC – Building Permit Complex

CDD – Civil Defence Department





ASSIGNMENT OF REFERENCE NOS.

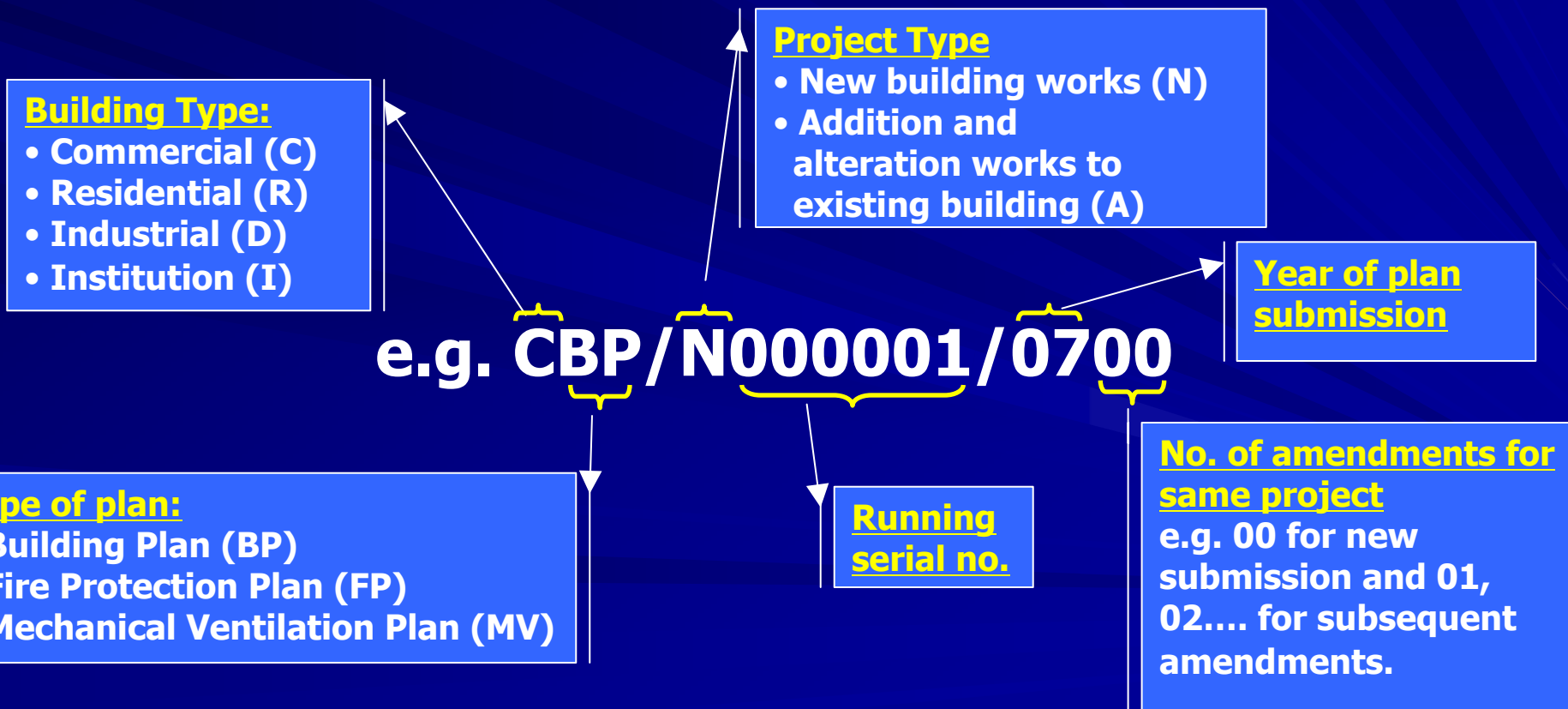
- Plans approval application**
- Consultation application**
- Waiver application**



ASSIGNMENT OF REFERENCE NOS.

• PLANS APPROVAL APPLICATION

Format of the plan reference number is proposed as follows:





ASSIGNMENT OF REFERENCE NOS.

- **PLANS APPROVAL (Examples)**

E.g. 1 : New XYZ commercial project

CBP/N00010/0700

- **New BP submission for a commercial project in year 2007**

E.g. 2 : Changes to plan arising from clients requirements for XYZ commercial project

CBP/N00010/0701

- **1st amendment BP submission for same project**

E.g. 3 : Further changes to plan arising from written direction from CDD for XYZ commercial project

CBP/N00010/0702

- **2nd amendment BP submission for same project**



ASSIGNMENT OF REFERENCE NOS.

• PLANS APPROVAL (Examples)

Cont'd

E.g. 4 : Works involving FP to be carried out to XYZ commercial project

CFP/N00010/0700

➤ **FP plan submission for XYZ commercial project**

E.g. 5 : Changes to FP plan for XYZ commercial project

CFP/A00010/0701

➤ **1st amendment FP submission for same project**



ASSIGNMENT OF REFERENCE NOS.

- **PLANS APPROVAL (Further Examples)**

E.g. 6 : Renovation works involving BP to be carried out to existing ABC residential building

RBP/A00005/0700

➤ **BP plan submission to existing ABC residential project**

E.g. 7 : Changes to BP plan for existing ABC residential building

RBP/A00005/0701

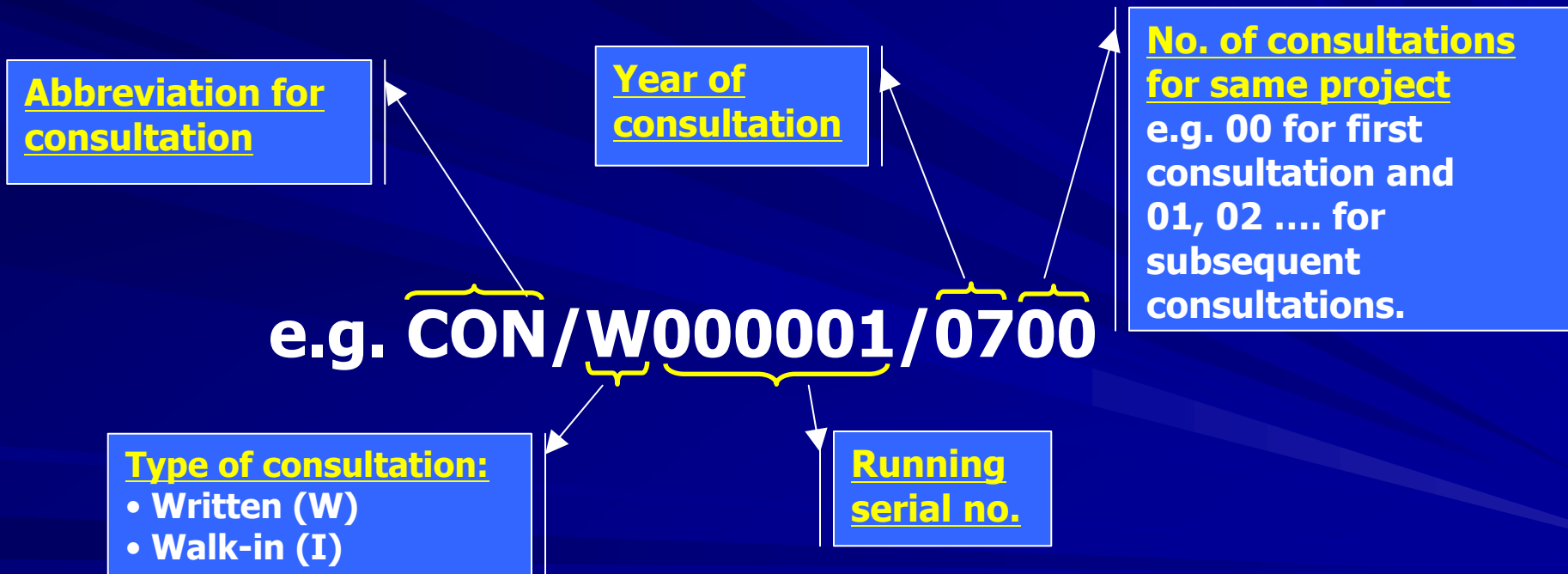
➤ **1st amendment BP submission for same project**



ASSIGNMENT OF REFERENCE NOS.

• CONSULTATION APPLICATION

Format of the consultation reference number proposed as follows:

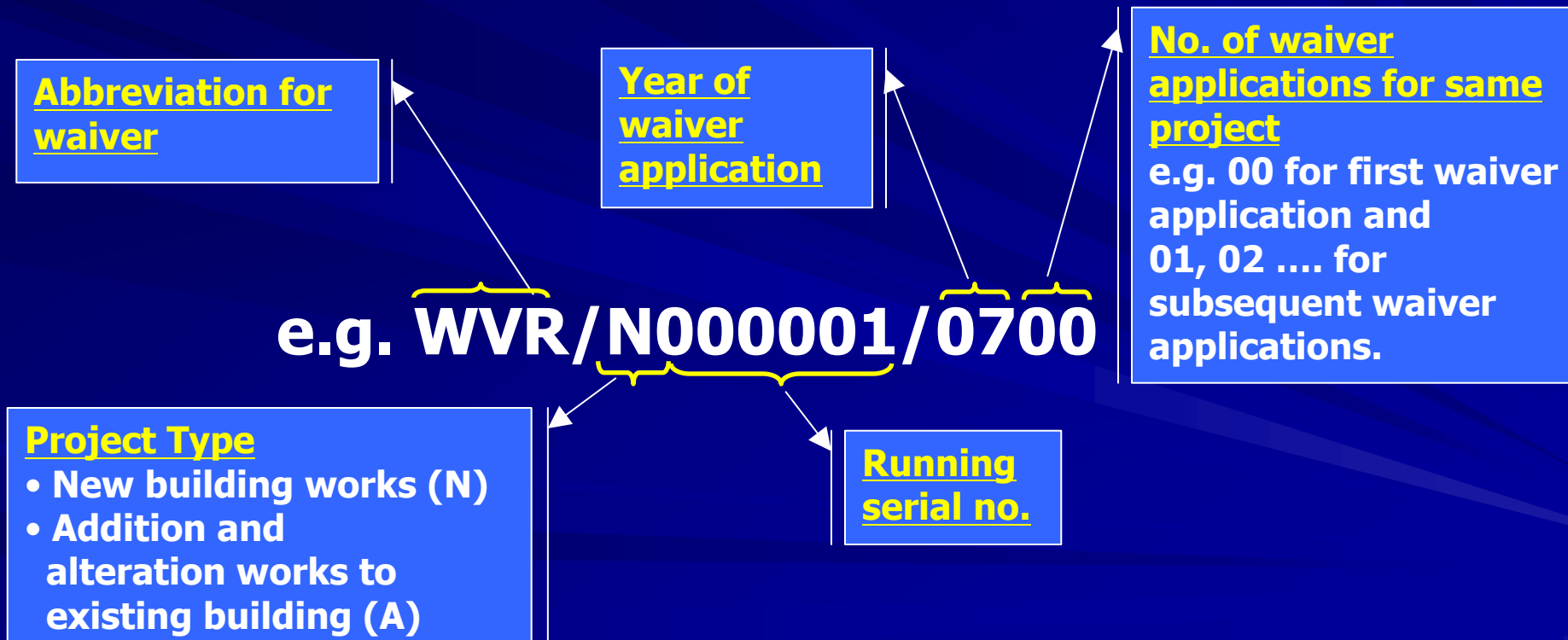




ASSIGNMENT OF REFERENCE NOS.

• WAIVER APPLICATION

Format of the waiver reference number proposed as follows:

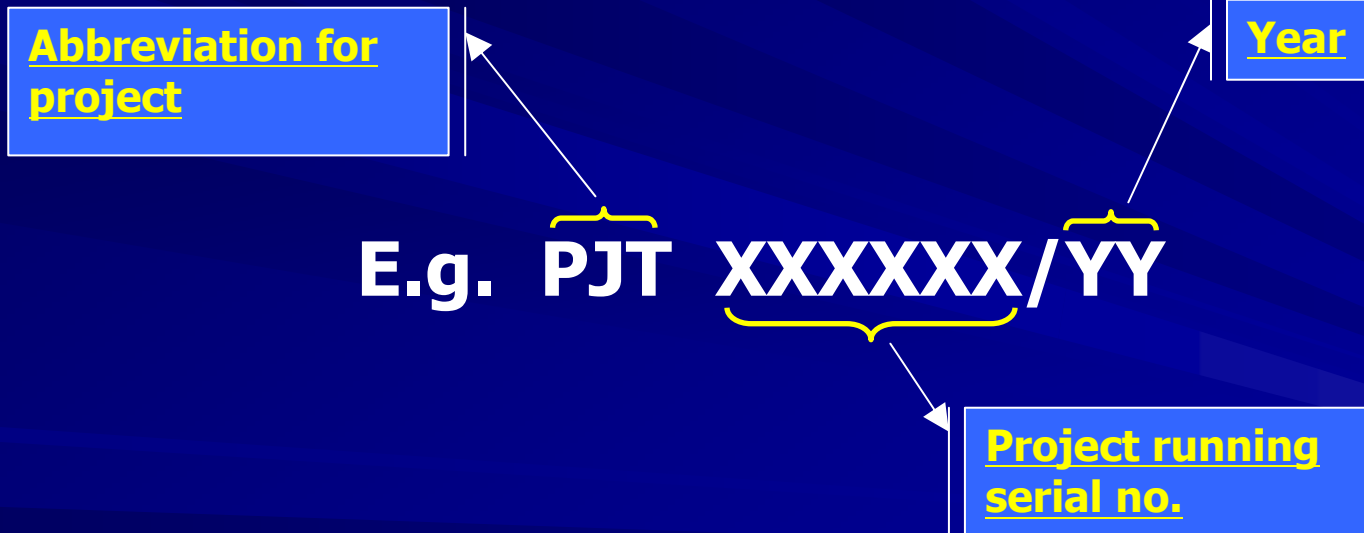




ASSIGNMENT OF REFERENCE NOS.

- **PROJECT REFERENCE NUMBER**

- Group all the various reference numbers for the same project





ASSIGNMENT OF REFERENCE NOS.

- **PROJECT REFERENCE NUMBER (Example)**

XYZ Commercial project has the following related applications under the following project reference number:

E.g. PJT 000128/07

- **CON/W00075/0700**
- **CON/I00075/0701**
- **WVR/N00030/0700**
- **CBP/N00088/0700**
- **CFP/N00088/0700**
- **CMV/N00088/0700**
- **CMV/N00088/0701**



APPLICATION FORMS

- Plans approval
- Consultation
- Waiver



APPLICATION FORMS

For the following applications:

- **PLANS APPROVAL (Application forms\Plan Application form (r).doc)**
- **CONSULTATION (Application forms\Consultation Application form (r).doc)**
- **WAIVER (Application forms\Waiver Application form (r).doc)**



POINTS TO NOTE

Plans approval application

- BP, FP and MV plans are to be separated
- Separate application form for each type of plan

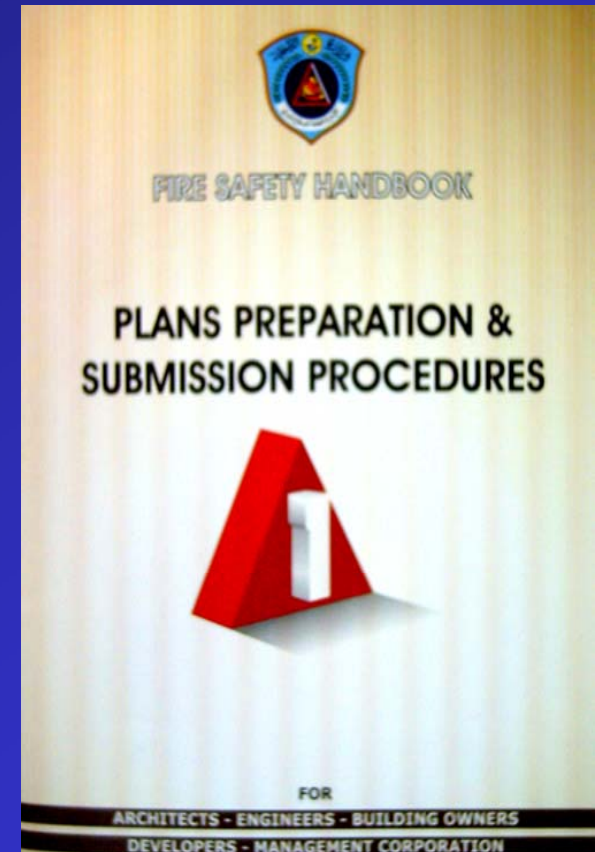
Consultation application

- Each consultation to be limited to 30 mins.
- Consultation should only be confined to clarification or interpretation of the fire code or to comment on the acceptability of a proposed fire safety design



CONCLUSION

- Submission procedures are streamlined to provide a more systematic and holistic approach to plans approval.
- With the handbook, CDD hopes that the overall quality of plans submission can be raised.





Shukran !

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