QUESTIONAIRE FOR REVISED APPROVAL OF FIRE SCHEME
FOR HIGH RISE BUILDINGS
HARYANA FIRE SERVICE

		Earlier Fire Scheme Approved vide memo no. 3638 dtd. 24.10.2013	Requirement as Per NBC Part IV 2016	Proposed Provisions as per NBC Part IV 2016	Remarks
1	Name of the Building	GROUP HOUSING SCHEME	NA	GROUP HOUSING SCHEME	No Change
2	Classification of Building as per NBC Part IV	GROUP A - RESIDENTIAL BUILDING	Part 4, Clause 3.1.1	Residential -A4 , Assembly - D3. **Main Occupancy : Residential**	No Change
3	Address of the Building	SECTOR 112 & 113, GURUGRAM	N/A	SECTOR 112 & 113, GURUGRAM	No Change
4	Name and Address of Builder / Promoter	M/S CSN ESTATE PRIVATE LIMITED, 128, GROUND FLOOR, SECTOR 44, GURUGRAM	N/A	M/S CSN ESTATE PRIVATE LIMITED, 128, GROUND FLOOR, SECTOR 44, GURUGRAM	No Change
5	Name & Address of Owner/ Occupiers of the individual flats	M/S CSN ESTATE PRIVATE LIMITED, 128, GROUND FLOOR, SECTOR 44, GURUGRAM	N/A	M/S CSN ESTATE PRIVATE LIMITED, 128, GROUND FLOOR, SECTOR 44, GURUGRAM	No Change
6	Plot Area	21.043735 ACRES	N/A	21.043735 ACRES	No Change
7	**Covered Area at Ground Level (Tower/ Block wise)**		N/A		
	Phase I				
	Tower A, B,C,D,E,F, Community Building, EWS & Shopping			Fire NOC received vide letter no DFS/FA/2017/551/39881 dated 12/04/2017	
	EWS				Due to change in design of Phase II, no of units added in the existing EWS in Phase I. Floor Area changed. But no. of Floors/ height of Building remains unchanged
	Phase II				Phase II complete design was changed including Tower nomenclature Height of Towers, Floor area etc
	Tower G				
	Tower H				
	Tower J				
	Tower K				
	Tower L				
	Tower M				
	Tower N				
	Tower P				
	Community Building 02				
	Community Building 03				
	Nursery School				
	Tower A1			348.393 Sqm	
	Tower B1			335.599 Sqm	
	Tower B2			618.512 Sqm	
	Tower B3			618.512 Sqm	
	Tower B4			618.512 Sqm	
	Tower B5			618.512 Sqm	
	Tower B6			618.512 Sqm	
	Tower A2			266.80 Sqm	

Certified that Fire Fighting Scheme is as per N.B.C. Part-IV, revised 2016

FSO Gurugram

ADFO Gurugram

Fire Fighting Scheme Approved vide letter No. FA/2018/1554 Dated 5.4.18

ADFO(HQ)

SDO DDT

For Paradise Consultants

Fire, Ventilation Electrical Consultants
Paradise Consultants

(Fire - Ventilation & Electrical Consultants)

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Arcop Associates Pvt. Ltd. New Delhi

CSN Estates Private Limited New Delhi

M/s CSN Estate (P) Limited

		Earlier Fire Scheme Approved vide memo no. 3638 dtd. 24.10.2013	Requirement as Per NBC Part IV 2016	Proposed Provisions as per NBC Part IV 2016	Remarks
	Community Building (Part of Tower A1 & B1)			1050.61 Sqm	
	Convenient Shopping (Part of Tower A2)			209.273 Sqm	
	Primary School			770.707 Sqm	
	Nursery School			211.39 Sqm	
8	Height of the Building (Tower / Block wise)		N/A		
	a. Overall Height (From Grade Level)				
	Phase I				
	Tower A, B,C,D,E,F, Community Building, EWS & Shopping			Fire NOC received vide letter no DFS/FA/2017/551/39891 dated 12/04/2017	
	EWS	35765 mm		35765 mm	No change in Overall Height of Building
	Phase II				Phase II complete design was changed including Tower nomenclature, Height of Towers, Floor area, number of Units etc
	Tower G				
	Tower H				
	Tower J				
	Tower K				
	Tower L				
	Tower M				
	Tower N				
	Tower P				
	Community Building 02				
	Community Building 03				
	Nursery School				
	Tower A1			83350 mm	
	Tower B1			47300 mm	
	Tower B2			47300 mm	
	Tower B3			47300 mm	
	Tower B4			47300 mm	
	Tower B5			47300 mm	
	Tower B6			47300 mm	
	Tower A2			83350 mm	
	Community Building (Part of Tower A1 & B1)			-	Part of Tower A1 & B1
	Convenient Shopping (Part of Tower A2)			-	Part of Tower A2
	Primary School			15200 mm	
	Nursery School			11200 mm	
	b. Occupied Height				
	Phase I				
	Tower A, B,C,D,E,F, Community Building, EWS & Shopping			Fire NOC received vide letter no DFS/FA/2017/551/39891 dated 12/04/2017	
	EWS	29575 mm		29575 mm	No change in Occupied Height of Building
	Phase II				Phase II complete design was changed including Tower nomenclature, Height of Towers, Floor area, number of Units etc
	Tower G				
	Tower H				
	Tower J				
	Tower K				
	Tower L				
	Tower M				
	Tower N				
	Tower P				
	Community Building 02				
	Community Building 03				
	Nursery School				
	Tower A1			78700 mm	
	Tower B1			42500 mm	
	Tower B2			42500 mm	

Certified that Fire Fighting Scheme is as per N.B.C. Part IV Revised 2016

FSO Gurugram

ADFO Gurugram

Fire Fighting Scheme Approved vide letter No. FA/2018/8541 36574 Dated 05-4-18

ADFO(HQ)

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Arcop Associates Pvt. Ltd. New Delhi

CSN Estates Private Limited New Delhi

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M/s CSN Estate (P) Limite

		Earlier Fire Scheme Approved vide memo no. 3638 dtd. 24.10.2013	Requirement as Per NBC Part IV 2016	Proposed Provisions as per NBC Part IV 2016	Remarks
	Tower B3			42500 mm	
	Tower B4			42500 mm	
	Tower B5			42500 mm	
	Tower B6			42500 mm	
	Tower A2			78700 mm	
	Community Building (Part of Tower A1 & B1)				Part of Tower A1 & B1
	Convenient Shopping (Part of Tower A2)				Part of Tower A2 & B6
	Primary School			12500 mm	
	Nursery School			8250 mm	
9	Number of Floors (including Ground Floor) (Tower / Block wise)				
	Phase I				
	Tower A, B,C,D,E,F, Community Building, EWS & Shopping			Fire NOC received vide letter no DFS/FA/2017/551/39891 dated 12/04/2017	
	EWS	7 Floors		7 Floors	No change in number of Floors
	Phase II				Phase II complete design was changed including Tower nomenclature, Height of Towers, Floor area etc
	Tower G				
	Tower H				
	Tower J				
	Tower K				
	Tower L				
	Tower M				
	Tower N				
	Tower P				
	Community Building 02				
	Community Building 03				
	Nursery School				
	Tower A1			26 Floors	
	Tower B1			14 Floors	
	Tower B2			14 Floors	
	Tower B3			14 Floors	
	Tower B4			14 Floors	
	Tower B5			14 Floors	
	Tower B6			14 Floors	
	Tower A2			26 Floors	
	Community Building (Part of Tower A1 & B1)			2 Floors	Part of Tower A1 & B1
	Convenient Shopping (Part of Tower A2)			1 Floor	Part of Tower A2
	Primary School			3 Floors	
	Nursery School			2 Floors	
10	No.s of Basement, Area & Level		NA		
	Phase I			Fire NOC received vide letter no DFS/FA/2017/551/39891 dated 12/04/2017	
	Phase II				
	Basement I	13310.05 Sqm		21440 Sqm	
	Basement II	15249.64 Sqm		7390.19 Sqm	
11	if the basement extends beyond the building line. Indicate the load bearing strength of the roof of basement.		45 Ton		
	Phase I			Fire NOC received vide letter no DFS/FA/2017/551/39891 dated 12/04/2017	

Certified that Fire Fighting Scheme is as per N.B.C. Part-IV, revised 2016

FSO Gurugram

ADFO Gurugram

Fire Fighting Scheme Approved vide letter No. FA/2018/854/38574 Dated 05-4-18

MFO(HQ)

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M/s CSN Estate (P) Limite

		Earlier Fire Scheme Approved vide memo no. 3638 dtd. 24.10.2013	Requirement as Per NBC Part IV 2016	Proposed Provisions as per NBC Part IV 2016	Remarks
	Phase II			Roof of the Basement beyond the building of all towers has been designed for 60T load of Fire Engine	
12	Occupancy (Use - Please mention separately for each Building /tower)				
	Sanctioned				
	Basement			Car Park & Services	
	Ground Floor			Tower A1 - Commercial and residential Tower B1 - Commercial and residential Tower B2 to B6 -Residential Tower A2 - Commercial and residential	
	First floor			Tower A1 - Commercial and residential Tower B1 - Commercial and residential Tower B2 to B6 -Residential Tower A2 - Residential	
	Upper Floor			Residential	
	Actual				
	Basement			Car Park & Services	
	Ground Floor			Tower A1 - Commercial and residential Tower B1 - Commercial and residential Tower B2 to B6 -Residential Tower A2 - Commercial and residential	
	First floor			Tower A1 Commercial and residential Tower B1 - Commercial and residential Tower B2 to B6 -Residential Tower A2 - Residential	
	Upper Floor			Residential	
13	Covered Area of Typical Floor (Tower/ Block wise)				
	Tower A, B,C,D,E,F, Community Building, EWS & Shopping			Fire NOC received vide letter no DFS/FA/2017/551/39891 dated 12/04/2017	
	EWS	508.85 Sqm		640. 693 Sqm	Change in Floor Area
	Phase II				
	Tower G				
	Tower H				
	Tower J				
	Tower K				
	Tower L				
	Tower M				
	Tower N				
	Tower P				Phase II complete design was changed including Tower nomenclature, Height of Towers, Floor area etc
	Community Building 02				
	Community Building 03				
	Nursery School				
	Tower A1			1st Floor - 196.233 Sqm Typical (2nd to 25th) -608.109 Sqm	
	Tower B1			1st Floor - 347.71 Sqm Typical (2nd to 11 th) -625.75 Sqm Typical (13th & 14th floor) - 424.476 Sqm	

Certified that Fire Fighting Scheme is as per N.B.C. Part-IV, revised 2016

FSO
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Gurugram

Fire Fighting Scheme Approved vide letter No. FA/...2018/854)36574 Dated.....05/4/18

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C&N Estates Pvt. Limited New Delhi

M/s C.S.N Estate (P) Limite

		Earlier Fire Scheme Approved vide memo no. 3638 dtd. 24.10.2013	Requirement as Per NBC Part IV 2016	Proposed Provisions as per NBC Part IV 2016	Remarks
	Tower B2			1st Floor - 618.512 Sqm Typical (2nd to 11 th) -625.75 Sqm Typical (13th & 14th floor) - 530.081 Sqm	Phase II complete design was changed including Tower nomenclature, Height of Towers, Floor area etc
	Tower B3			1st Floor - 618.512 Sqm Typical (2nd to 11 th)-625.75 Sqm Typical (13th & 14th floor) - 530.081 Sqm	
	Tower B4			1st Floor - 618.512 Sqm Typical (2nd to 11 th)-625.75 Sqm Typical (13th & 14th floor) - 530.081 Sqm	
	Tower B5			1st Floor - 618.512 Sqm Typical (2nd to 11 th)-625.75 Sqm Typical (13th & 14th floor) - 530.081 Sqm	
	Tower B6			1st Floor - 618.512 Sqm Typical (2nd to 11 th)-625.75 Sqm Typical (13th & 14th floor) - 424.476 Sqm	
	Tower A2			1st Floor - 456 Sqm Typical (2nd to 25th)-608.109 Sqm	
	Community Building (Part of Tower A1 & B1)			1st Floor - 282.321 Sqm	
	Convenient Shopping (Part of Tower A2)			-	
	Primary School			1st Floor - 755.037 Sqm 2nd Floor - 724.413 Sqm	
	Nursery School				
14	Parking Areas (Please give details)		Certified that Fire Fighting Scheme is as per N.B.C. Part-IV, revised 2016		
	Phase I		FSO Gurugram	Fire NOC received vide letter no DFS/FA/2017/551/39891 dated 12/04/2017	
	Phase II			Surface - 247 Lower Basement - 169 Upper Basement - 563	
15	Details of Surronding Property/ Features				
	Compass direction in relation to Building	Type of property / Feature	Height in case of building		
	NORTH	Other Land			No Change
	SOUTH	Other Land			
	EAST	Other Land			
	WEST	60 m Wide Road			
16	Approach to proposed building, width of the road and connecting roads, if any		Fire Fighting Scheme Approved vide letter No. FA/2018/854/36574 Dated.....05-4-18..... 12m wide road	Entry from 12 m Wide Service Road	
17	Please give details of water supply available exclusively for fire fighting		DFO(HQ)	DDT-I	
	Underground Fire Tank				
	Phase II		400 KLD	(1 No. 285KL + 1 No. 200 KL + 1 No. 120 KL) Total capacity = 605 KL	
	Overhead Fire Tank				
	Tower A1		10 KL	10 KL	
	Tower B1		10 KL	10 KL	
	Tower B2		5 KL	5 KL	
	Tower B3		5 KL	5 KL	

For Paradise Consultants

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M/s DLF Estates Private Limited
M/s DLF New Delhi

		Earlier Fire Scheme Approved vide memo no. 3638 dtd. 24.10.2013	Requirement as Per NBC Part IV 2016	Proposed Provisions as per NBC Part IV 2016	Remarks
	Tower B4		5 KL	5 KL	
	Tower B5		5 KL	5 KL	
	Tower B6		5 KL	5 KL	
	Tower A2		10 KL	10 KL	
	Community Building (Part of Tower A1 & B1)		-	-	
	Convenient shopping (Part of Tower A2)		-	-	
	Nursery School		5 KL	5 KL	
	Primary School		5 KL	5 KL	
18	Has wet riser(s) been provided? If so, please indicate the number of risers and internal dia of each.		Yes provided,	Yes provided, 150mm wet riser in each tower	
	Tower A1		- do -	- do -	
	Tower B1		- do -	- do -	
	Tower B2		- do -	- do -	
	Tower B3		- do -	- do -	
	Tower B4		- do -	- do -	
	Tower B5		- do -	- do -	
	Tower B6		- do -	- do -	
	Tower A2		- do -	- do -	
19	Has any Downcomer been provided? If so please give details.		Yes provided,	Yes provided,	
	Community Building (Part of Tower A1 & B1)			1 No. 100 mm dia down comer pipe	
	Convenient shopping (Part of Tower A2 & B6)		1 x 65 mm dia	1 No. 150 mm dia down comer pipe	
	Primary School		As per NBC 150mm dia down comer required	1 No. 150 mm dia down comer pipe	
	Nursery School		As per NBC 100mm dia down comer required	Yes provided, 100mm down comer in each tower	
20	Please indicate the present arrangement for replineshment of water for fire fighting.		Certified that Fire Fighting Scheme is as per NBC Part-IV, revised 2016 Not Required	Not proposed	
21	Is a public or other water storage facility available nearby? If so, please give the capacity and distance from your building. Also please indicate if it is readily accessible.		FSO Gurugram Not Mentioned	ADFO Gurugram Not Known	
22	Please give any other information that you can regarding availability of water supply for fire fighting		Not Mentioned	Proposed : Raw water tank - (100 +100) =200 KL & Domestic (160 + 90) =250 KL	

Fire Fighting Scheme Approved
vide letter No. FA/..2018/8543/36574
Dated....05-4-18.....

ADFO(HQ)

DDT-I

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CSN Estates Private Limited New Delhi

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M/s CSN Estate (P) Limite

		Earlier Fire Scheme Approved vide memo no. 3638 dtd. 24.10.2013	Requirement as Per NBC Part IV 2016	Proposed Provisions as per NBC Part IV 2016	Remarks
23	Have internal hydrants been provided? If so, please indicate:				
	a) No. of hydrants on each floor including basement(s) and terrace.			Yes, 80 mm dia hydrants has been proposed near staircase of each floor including terrace.	
	Phase II		Yes, one internal hydrant with single headed landing valve has been proposed in each floor including terrace,		
	Lower Basement			09 Nos	
	Upper Basement			28 Nos	
	Tower A1			1 on each floor	
	Tower B1			- do -	
	Tower B2			- do -	
	Tower B3			- do -	
	Tower B4			- do -	
	Tower B5			- do -	
	Tower B6			- do -	
	Tower A2			- do -	
	Nursery School			- do -	
	Primary School			- do -	
	b) Have these hydrants single or twin outlets.		Required, Single Headed.	Single outlet has been proposed	
24	Have first aid hose reels been provided? If so, please indicate		Yes, one First Aid Hose Reel has been proposed in each FHC including basement	Yes, one First Aid Hose Reel has been proposed in each FHC including basement	
	a. No. of Hose reels on each floor including basements		Required	Yes, one First Aid Hose Reel has been proposed in each FHC.	
	b. Bore and length of hose reel tubing on each reel		20 mm dia x 30 m Long	Yes proposed (20mm & 30 m length)	
	c. Size(bore) and type of nozzle fitted to each hose reel		Gun Metal/ Stainless Steel shut off nozzle having 6.5 mm dia	Yes proposed (6.5mm shutoff nozzle)	
	d. If the hose reel connected directly to the riser or to the hydrant outlet?		Connected directly to the wet riser	Yes, connected directly to the riser	
25	Has fire hose been provided near each Hydrant , If so, please indicate		Provided	Yes, proposed	
	a. The type of hoses		RRL IS : 636 1988	Proposed (RRL Type)	
	b. The size(bore) of hoses		63 mm dia	proposed 63mm dia fire hose	
	c. The length of each hose		15 m long	proposed 15m long fire hose	
	d. Total No. of hoses provided near each hydrant		2 Nos. near each single headed Internal Hydrants	Yes, two nos. proposed	
26	Have branch pipes been provided?. If so please indicate.		Provided	Yes, proposed	
	a. The type of branch pipes		GM Standard Short Branch Pipe.	Yes, short branch pipe proposed	
	b. Size and nozzle fitted to each branch		63 mm & 20 mm Nozzle	63 mm & 20 mm nominal bore.	
27	If the basement is used for Car parking or storage , has it been sprinkled		Yes, Sprinkler shall be provided for Parking.	Yes, basement has been sprinklered	

Fire Fighting Scheme Approved vide letter No. FA/...3018/8591/ ...5574 Dated 05-4-18

DFO(HQ)

DDF-I

Certified that Fire Fighting Scheme is as per N.B.C. Part-IV, revised 2016

FSO Gurugram

ADFO Gurugram

For Paradise Consultants
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Client
M/s CSN Estate (P) Limited
CSN Estates Private Limited New Delhi

		Earlier Fire Scheme Approved vide memo no. 3638 dtd. 24.10.2013	Requirement as Per NBC Part IV 2016	Proposed Provisions as per NBC Part IV 2016	Remarks
28	Whetеher segregation/ compartmentation of the basement has been provided. If so please detail		Required,	Basement Car Park area shall be having compartments of area <= 3000 Sq.m. as per the code	
29	Is the building equipped with automatic fire detection and alarm system? if so, please indicate –		Required as per NBC for more than 60 Mtr. Height or above High rise building Automatic Fire Detection and Alarm and less than 60Mtrs Height Manual fire Alarm system shall be required.	Yes, Automatic Fire Alarm and Detection System is Proposed in Tower A1 & A2 and Manual Fire Alarm System is Propsed in tower B1 - B6.	
	a) The type of detectors used		NBC Clause no[4(18)], Table 23	Multicriteria Detectors shall be provided in basement Services Area, plant/pump room & Fan Room. Smoke detector shall be provided in Lift Lobby and Electrical Rooms	
	b) The standard to which the detectors conforms.		IS : 11360,2175	IS : 11360,2175	
30	Have manual call boxes been installed in the building for raising an alarm in the event of an outbreak of fire? If so, please give details.		Required as per NBC-IV, 6.4,8.5 fire and safety, Manual Call Box should be provided in central place of each platform.	Yes (Break – Glass Type) in all tower at Exit Staircases and basement at Exits and at 30m interval.	
31	Has a public address system been installed in the building with loud speakers on each floors.		Required as per NBC-IV, fire and safety, Speaker or Hooter should be provided in central place of each platform.	Yes, Speaker and Hooter cum sounder to be installed on each lift lobby at each floor and Talk Back System in all towers	
32	Has an intercom system been provided between the various floors and the fire control room in the entrance lobby.		Required as per NBC-IV C-5, For 15 Mtr. Height or above High rise building shall be a Control Room on the Entrance Floor of The building with Communication System	Yes, Communication system will be provided.	
33	Has a fire control room been provided in the entrance lobby of the building.		Required,	Main Fire Control Room at Ground Floor of Tower A2	
34	How many Staircases have been provided in the building?		Above 15 m or 500 sqm floor area shall have 2 staircases	Tower A1/ A2 - 2 No.s Tower B1 to B6- 2 No.s Community Building - 2 No.s Primary School - 3 No.s Nursery School- 1 No.s	
	a. The width of the Stairway		1250 mm	Tower A1/ A2 - 1375mm & 1367.5 mm Tower B1 to B6- 1250 mm Community Building - 1500 mm and 1500 Primary School -1800mm,1500mm &1000mm Nursery School -1500mm	
	b. The width of Treads		Min 250 mm for Residential buildings	Tower A1/ A2 - 250 mm Tower B1 to B6- 250 mm Community Building - 300 mm Primary School - 300mm,250mm Nursery School - 300 mm	

Certified that Fire Fighting Scheme is as per N.B.C. Part-IV, revised 2016

FSO Gurugram

ADFO Gurugram

Fire Fighting Scheme Approved vide letter No. FA/2018/1854/1858 Dated 05.4.18

FO(HQ)

DDT-I

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Client
M/s CSN Estate (P) Limited

		Earlier Fire Scheme Approved vide memo no. 3638 dtd. 24.10.2013	Requirement as Per NBC Part IV 2016	Proposed Provisions as per NBC Part IV 2016	Remarks
	c. The height of risers		Max. 190 for Residential Buildings	Tower A1/ A2 - 187.5 mm & 166.67 mm Tower B1 to B6- 187.5 mm & 166.67 mm Community Building - 166.67 mm Primary School - 150mm Nursery School - 169.5 mm	
	d. If the treads are of non-slip type		Required	Yes, Non Slip Type. Grooves are being provide near nosing.	
35	What is the average occupant load per floor?				
	Tower A1			Ground floor 6 First floor 6 2nd to 25th floor 24	
	Tower B1			Ground floor 10 First floor 15 2nd to 11th floor 30 12th & 13th floor 20	
	Tower B2			Ground floor 25 1st to 11th floor 30 12th & 13th floor 25	
	Tower B3			Ground floor 25 1st to 11th floor 30 12th & 13th floor 25	
	Tower B4			Ground floor 10 First floor 15 2nd to 11th floor 30 12th & 13th floor 20	
	Tower B5			Ground floor 25 1st to 11th floor 30 12th & 13th floor 25	
	Tower B6			Ground floor 25 1st to 11th floor 30 12th & 13th floor 20	
	Tower A2			Ground floor 6 First floor 18 2nd to 25th floor 24	
36	How many lifts have been installed in the building? (Tower/ Block wise)		NBS recommends desired 1 minute average waitig interval and 2.5 minutes handling capacity for an efficient vertical transportation. Also recommends one fireman's lift in a building to serve all floors	Tower A1- 3 No.s (1 Fire Lift + 2 Passenger) Tower B1 - 2 No.s (1 Fire Lift + 1 Passenger) Tower B2 - 2 No.s (1 Fire Lift + 1 Passenger) Tower B3 - 2 No.s (1 Fire Lift + 1 Passenger) Tower B4 - 2 No.s (1 Fire Lift + 1 Passenger) Tower B5 - 2 No.s (1 Fire Lift + 1Passenger) Tower B6 - 2 No.s (1 Fire Lift + 1Passenger) Tower A2- 3 No.s (1 Fire Lift + 2 Passenger) Community Building - 1 No. (Passenger Lift)	
	Please indicate in each case:				
	a. The floors between which the lift runs		All habital space	Tower A1- 2nd Basement to 25th Floor Tower B1 - 2nd Basement to 13th Floor Tower B2 - 2nd Basement to 13th Floor Tower B3 - 2nd Basement to 13th Floor Tower B4 - 2nd Basement to 13th Floor Tower B5 - 2nd Basement to 13th Floor Tower B6 - 2nd Basement to 13th Floor Tower A2- 2nd Basement to 25th Floor Community Building - Gnd to 1st Floor	

Certified that Fire Fighting Scheme is as per N.B.C. Part-IV, revised 2016

FSO Gurugram

ADFO Gurugram

Fire Fighting Scheme Approved vide letter No. FAI.2018/8541/38534 Dated 05.04.18

DFO(HQ)

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Fire, Ventilation Electrical Consultants
Paradise Consultants

(Fire - Ventilation & Electrical Consultants)

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Client
M/s GSN Estate (P) Limited

		Earlier Fire Scheme Approved vide memo no. 3638 dtd. 24.10.2013	Requirement as Per NBC Part IV 2016	Proposed Provisions as per NBC Part IV 2016	Remarks
	b. Floors area of the lift car		min 1.4 sq.m	Tower A1- 2000x 1300 mm / 2000x 1100 mm Tower B1 - 2000 x 1100 mm Tower B2 - 2000 x 1100 mm Tower B3 - 2000 x 1100 mm Tower B4 - 2000 x 1100 mm Tower B5 - 2000 x 1100 mm Tower B6 - 2000 x 1100 mm Tower A2- 2000x 1300 mm / 2000x 1100 mm Community Building - 1350 x 1300 mm	
	c. Loading capacity of the lift car.		minimum 8 person	Tower A1- 1020 Kg / 884 Kg Tower B1 - 884 Kg Tower B2 - 884 Kg Tower B3 - 884 Kg Tower B4 - 884 Kg Tower B5 - 884 Kg Tower B6 - 884 Kg Tower A2- 1020 Kg/ 884 Kg Community Building - 680 Kg	
	d. Has communication system been installed in the lift car.		Required	Yes	
	e. Has a fireman's switch been installed in the lift for grounding it in the event of a fire?		Required	Yes	
37	Have any stationery fire pumps(s) been installed for pressurizing the wet riser? If so, please indicate		Provide required number of sets of pumps each consisting of two electric and one diesel pump (stand by) of capacity 2 850 litre/min and two electric pump of capacity 180 litre/min --- Alternative to provisions of additional set of pumps, the objective can be met by providing additional diesel pump of the same capacity and doubling the water tank capacity as required for one set of pumps.	02 Nos. Electrical Pumps, 02 Nos. Jockey Pumps, 02 Nos. Diesel Pumps, 01 No. Water Curtain Pump	
	a. Number of pumps				
	Electrical driven Hydrant		1 No.	1 No.	
	Electrical driven Sprinkler		1 No.	1 No.	
	Diesel driven Pump		2 No.	2 No.	
	Jockey Pump		2 No.	2 No.	
	Curtain Nozzle Pump		1 No.	1 No.	
	Nursery School Terrace Pump		1 No.	1 No.	
	Primary School Terrace Pump		1 No.	1 No.	
	b. The size of suction and delivery connections of each pump	DFO(HQ)	See DDT-I		
	Electrical driven Hydrant		Electrical driven Hydrant	200/150 mm	
	Electrical driven Sprinkler		Electrical driven Sprinkler	200/ 150 mm	
	Diesel driven Pump		Diesel driven Pump	250 / 200 mm	
	Jockey Pump		Jockey Pump	100/ 80 mm	
	Curtain Nozzle Pump		Curtain Nozzle Pump	150 / 100 mm	
	Nursery School Terrace Pump		Nursery School , Terrace Pump –	150/100 mm	
	Primary School Terrace Pump		Primary School, Terrace Pump	150/100 mm	

Certified that Fire Fighting Scheme is as per N.B.C. Part-IV, revised 2016

FSO Gurugram

ADFO Gurugram

Fire Fighting Scheme Approved vide letter No. FAI-2018/854/38574 Dated 05-4-18

For Paradise Consultants

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Client
M/S CGN Estate (P) Limited

		Earlier Fire Scheme Approved vide memo no. 3638 dtd. 24.10.2013	Requirement as Per NBC Part IV 2016	Proposed Provisions as per NBC Part IV 2016	Remarks
	c. The output of each pump				
	Electrical driven Hydrant				
	Electrical driven Hydrant		Electrical driven Hydrant	2850 LPM	
	Electrical driven Sprinkler		Electrical driven Sprinkler	2850 LPM	
	Diesel driven Pump		Diesel driven Pump	2850 LPM	
	Jockey Pump		Jockey Pump	180 LPM	
	Curtain Nozzle Pump		Curtain Nozzle Pump	2280 LPM	
	Nursery School Terrace Pump		Nursery School , Terrace Pump –	450 LPM	
	Primary School Terrace Pump		Primary School, Terrace Pump	450 LPM	
	d. The head of each pump		Multistage & Multioutlet pumps, 140/90M head, Water curatin pump : 35 m Head	Multistage & Multioutlet pumps, 140/90M head, Water curatin pump : 35 m Head	
	e. Is the pump automatic in action?		Yes, Required	Yes, Provided	
38	Has a standby source of power supply been provided? If it is through a generator, please indicate		Required as per NBC-IV 6.4.8.1. the provision of diesel pump can be dispensed with and instead, two electric pumps may be provided out of which at least one should have DG back-up. The jockey pump should also have DG back-up.	Yes, proposed with 100% back up for emergency Loads	
	a. The capacity (output)		Standby backup to be provided for essential loads	5.145MVA DG Sets (2x1250kVA+2x1010kVA+1x625kVA)	
	b. The functions that can be maintained simultaneously by the use of generator, such as operating lift(s), fire pumps, emergency lighting etc.		Required as per NBC-IV 6.4.8.1. the provision of diesel pump can be dispensed with and instead, two electric pumps may be provided out of which at least one should have DG back-up. The jockey pump should also have DG back-up.	Yes, Proposed	
	c. Is the generator automatic in action or has to be started manually ?		Automatic	Automatic	
39	Has any yard hydrant been provided from the building's fire pump		Required	Yes, Provided Phase-II- 23 Nos., (c/c distance 45 m)	
40	Where more than one lifts are installed in a common enclosure, have individual lifts been separated by fire resisting walls of two hours fire rating?		Required	Yes, Provided.	

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Fire Fighting Scheme Approved vide letter No. FAI-2018/1854/36524 Dated 05-4-18

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CSN Estates Pvt. Ltd. New Delhi

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M/s CSN Estate (P) Limite

		Earlier Fire Scheme Approved vide memo no. 3638 dtd. 24.10.2013	Requirement as Per NBC Part IV 2016	Proposed Provisions as per NBC Part IV 2016	Remarks
41	Has the lift shaft(s) lift lobby or stair wall been pressurized? If so, give details.		Required	Lift Shafts are pressurized to create a positive pressur of +50 Pa from surrounding. LiftLobbies above ground Floors are open type. However, in basements they are pressurized to create +25 Pa positive pressure from surroundings. All Staircases in the basement to ground are pressurized to create a positive pressur of +50 Pa from surrounding. One of the staircases is pressurized from ground to terrace , each in tower A1 and A2 to create a positive pressur of +50 Pa from surrounding.	
42	Have the lift lobbies and staircases been effectively enclosed to prevent fire/smoke entering them from outside at any floor ?		• Lift shaft is pressurized and Staircase provided with openable window (For Ground & above Floors). • All Lift Lobbies and staircase shall be pressurized in the basements.	All Liftlobbies and Staircases shall have Fire Rated Doors of 1 Hour rating. The Lift Lobbies and Staircases shall be open Type with railings so that any smoke entering them may not be blocked. One of the staircase in tower A1 and A2 , shall be pressurized as it is enclosed staircase	
43	Have all exits and directions of travel to each exit been sign posted with illuminated signs?		Yes, .	Yes, .	
44	Has a false ceiling been provided in any Public portion of the building? if so, please indicate location Gap, Fire system above false ceiling and also mention if the material used for the false ceiling is combustible on non-combustible.		Yes, material of false ceiling is non-combustible	ENTRANCE LOBBY, ENTIRE SPACE,CONVENIENT SHOPPING. Distance between bottom of slab and false ceiling has been kept below 800mm, NON-COMBUSTIBLE MATERIAL	
45	Is the building centrally air conditioned? If so, please indicate.		NA	NA	
	a. The material used for construction of ducts and its fittings.		G.S.S.	Hot Dip Process and Galvanized Steel Sheets conforming to BIS 655, BIS 277, BIS 737	
	b. The type of tinning used for ducts if any.		Fibre Glass 48 Kg/m3 density	Not proposed	
	c. Type of lagging used, if any for insulating any portion of the duct, please also indicate how the lagging is secured.		NA	NA	
	d. If false ceiling is provided please give information as at 44 above.	Yes, Non-Combustible	Yes, Non-Combustible	Non-Combustible	
	e. If plenum is used as return air passage has it been protected with fire detectors? Please give details	NA	NA	NA	

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Fire Fighting Scheme Approved vide letter No. FA/2018/854/33574 Dated 5/4/18

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		Earlier Fire Scheme Approved vide memo no. 3638 dtd. 24.10.2013	Requirement as Per NBC Part IV 2016	Proposed Provisions as per NBC Part IV 2016	Remarks
	f. Has a separate AHU been provided for each Floor ?	NA	NA	Not Proposed	
	g. Whether automatic shut down of AHU is coupled with detection system?		NA	NA	
	h. Is the ducting for each floor effectively isolated or is it continuous on more than on floors ?		NA	Yes, ducting in basement is isolated.	
	i. Is the Fire dampers being provided		May be Required if a duct crosses a fire rated wall	Not Required in the project.	
46	Where are the switchgear and transformers located, If in side the building, please indicate.	In Basement.	Fire & life safety Part - 4 Annex - C Clause - 1 .16 ©	First Basement	
	a. If the switch gear and transformer(s) have been housed in separate compartments, effectively separated from each other and from other portions of the buildings by a four hour resistive wall?	4 Hours fire rating	As per NBC, when transformers housed inside the building, the transformer shall be of dry type and shall be cut off from the other portion of premises by walls/ door / cutout having fire resistance rating of 4 hr.	33 KV Switchgear and Dry Type Transformers are located in the Basement in separate enclosures with 4 hrs. fire rated wall.	
	b. What precautions have been taken to prevent a possible fire in the transformer(s) from spreading	Transformers shall be dry type. Fire resistive wall (230 mm thick) separates the trans-formers. Smoke detectors in each transformer room. 22.5 kg CO2 & 50 ltrs capacity mechanical foam fire extinguisher are provided in transformer room. CO2 flooding system shall be provided in panel.	Fire Rated walls required	4 Hours fire rated walls/Fire Extuinguisher/Fire Bucket proposed, Gas Flooding system over HT/LT Panel	
47	Where electric cables, telephone cables, Dry/wet risers/ down comers pass through a floor or wall have spaces (apertures) round the cables/pipes been effectively sealed plugged with non-combustible, fire resistive material.	YES	All shafts and all leakages to be sealed at every floor.	Fire resistive material will be used to seal all shaft and leaksges	
48	Ventilation				
	a) Whether Natural ventilation is relied upon? If so, give details to the vents for the stairwell lift lobby and lift shaft.		Natural Ventilation is permissible in Staircase and Lift Lobbies above Ground Floor Level	a) Staircase and Lift Lobby above G.F. naturally ventilated in tower B1, B2,B3,B4,B5, B6. However, In Tower A1 and A2, One staircase is pressurized and one is naturally ventilated.	

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Fire Fighting Scheme Approved vide letter No. FA/2018/604/30574 Dated...5/4/2018

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		Earlier Fire Scheme Approved vide memo no. 3638 dtd. 24.10.2013	Requirement as Per NBC Part IV 2016	Proposed Provisions as per NBC Part IV 2016	Remarks
	b) Whether Mechanical ventilation has been proposed ? If so give detail of the proposed system indicating the no. of air changers for the basement and upper floors.		Basement Ventilation to be done at 12 ACPH. Normal Ventilation at 6 ACPH and additional 6 ACPH for Smoke Ventilation.	Yes, The Upper Basement has mechanical exhaust system with 6 ACPH (Normal Exhaust) and additional 6 ACPH (Smoke Exhaust). The Fresh Air for Upper Basement shall be through suitaby sized shafts. The Lower Basement has mechanical exhaust and Fresh air system with 6 ACPH (Normal Exhaust/ Fresh Air) and additional 6 ACPH (Smoke Exhaust/ Fresh Air). b) In Tower A1 and A2, One staircase is pressurized at+50 Pa from surrounding. and one is naturally ventilated with the provision of railing.	
	c) Whether Mechanical ventilation is coupled with automatic alarm and detection system please give detail of the system		Required.	Yes. It is Coupled with Automatic Alarm and Detection System	
49	Wether Building is sprinklered or not.		Required	Yes, Basement and Tower A1 & A2 are sprinklered	
50	Please indicate the number and type of fire extinguishers provided at various locations and arrangement for the maintenance of the extinguishers.		Required	Each FHC has Water (gas pressure) type capacity 9 lts. (1 No.), CO2 type 4.5 Kg (1 No), Dry Chemical powder (1 No) near each FHC & in all electrical panels, pump rooms, CO2 type trolley mounted extingushers.	
51	Please indicate if all fire extinguishers bear the ISI certification mark.		ISI certification mark	Yes, Provided	
52	Wether the Refuge Area has been provided? If so, the floor on which provided and the total area provided floor wise.		Refuge area of 0.3 sq.m per person for accomodating occupants of two consecutive floors and additional 0.9sq.m for accommodating wheel chair or 15 sq.m,which ever is higher	Provided 15.35 sqm on 20th Floor of Tower A1 & A2,No of occupants @ typcal floor is 24,As per formulae [(24+24) x 0.3]+0.9=15.3	
53	Are the occupants of the building systematically trained in fire prevention, use of fire extinguishers and emergency procedures. If so, please give details.		Required	Yes, training is to be provided to all the staff members and security guards. After completion of the building	
54	Does an emergency organization exits in the building? If so, please give details and append a copy of the emergency (fire) orders		Required	Organisation shall be placed at the time of operation	
55	Has a qualified Fire Officer been appointed for the building - either individually or jointly with other buildings(s)		Required	Will be appointed	

Certified that Fire Fighting Scheme is as per N.B.C. Part-IV, revised 2016

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Fire Fighting Scheme Approved vide letter No. FA/2018/8549/3854 Dated 5-4-18

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56	Has the Building been protected against lightening? If so does the same confirm to any code? Please indicate details		IS 2309 : 1989/ NFC	Standalone type, Advanced technology early streamer (ESE) lightning protection as provided as per NFC 17-102 & UNE 21186-96.	
57	Weather fire tender movement road shown around the tower as per NBC (minimum 6 mtr)		Required	Yes, a fire tender path 6 m wide runs throughout the site.	

Certified that Fire Fighting Scheme is as per N.B.C. Part IV, revised 2016

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Signature of Fire, Ventilation & Electrical Consultant

Name:

Organisation:

Place:

Dated: 12.02.2018

Signature of Project Architect

Manish Kr. Bagga, Architect
Council of Architecture
Registration No. CA/95/1862

Arcop Associates Pvt. Ltd. New Delhi

Signature of Applicant/ Owner

CSN Estates Private Limited New Delhi

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Dated....

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Fire Fighting Scheme Approved
vide letter No. FAI/2018/154/1.36574
Dated... 5/4/2018

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