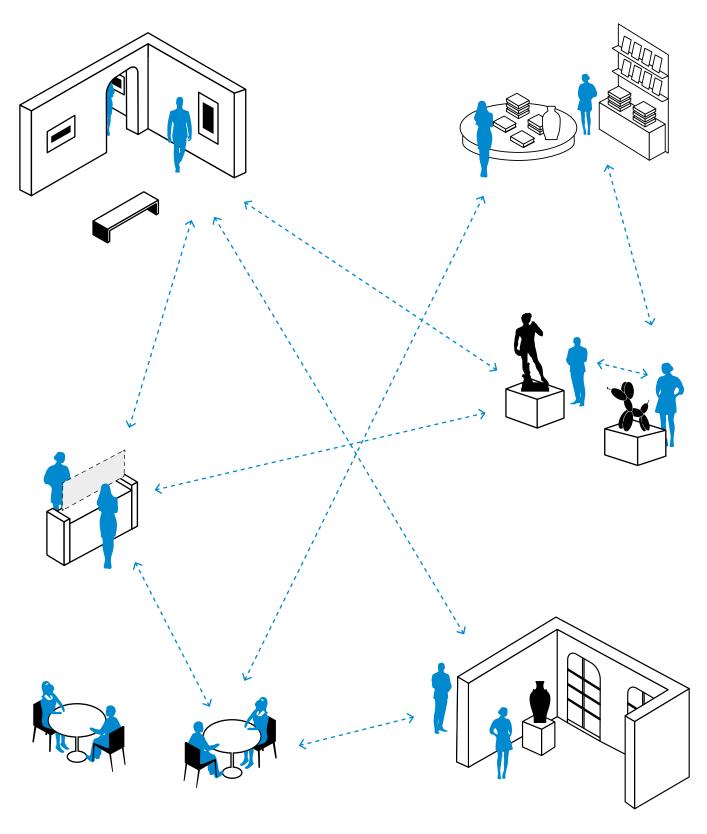
Museums in Times of Social Distancing

Spatial Toolkit

Version 1.1 – May 2020



Introduction

We all, both as individuals and as organisations, live and operate in highly uncertain times due to COVID-19. A lot of what we know and do is increasingly being questioned and no firm solutions or end dates are given for the current circumstances.

Notwithstanding this challenging situation, we felt the need to use our expertise in spatial design for art related spaces, to explore and identify solutions and possibilities to help shape a new generic spatial design vision for museums within the given boundaries of social distancing as we know them to date.

The suggestions in this document reflect our practical and spatial interpretations of existing guidelines from industry related organisations such as CIMAM and the Dutch Museums Association, international governmental guidelines and restrictions, implemented and evaluated solutions and findings from museums, galleries and restaurants from regions that have already opened up and online research.

Our toolkit is by no means a 'one size fits all' solution but is meant merely to trigger alternative thinking with regard to finding solutions for spatial challenges related to social distancing. It can also be used as a toolkit from which museums can pick and choose what is relevant for them and further develop their own approach by making it location, site and situation specific, subject always to the applicable local or international COVID-19 rules and regulations.

Furthermore, we hope this document allows and challenges museums to look at the spatial interventions from an aesthetical point of view as well and realise they might be lasting longer than originally expected. And encourage them to develop and execute a well-designed plan that offers visitors an optimal visitor journey and places art at the core, without getting distracted by museum unworthy spatial interventions.

We believe this document could also support organisations in:

- Developing protocols to submit to local authorities
- Reassuring visitors
- Reassuring sponsors that the museum is taking adequate measures
- Making visitors and staff feel at ease
- Enabling visitors to move around easily and get to the desired destination
- Enabling visitors to focus on the art presented

We will update this document on a regular basis and integrate new findings and insights. Therefore, it is not a static document, but a permanent work in progress.

Version 1.1 – May 2020

The update history can be found on the last page of this document.

Table of Contents

Introduction	2	Functional	16	
General	4	Before entering building	16	
		Outside waiting area	16	
Occupancy	4	Health check unit	16	
Distance	4	Door area	16	
Activities	4			
Defining occupancy	5	Entrance	17	
		Area set-up	17	
Floor plan	6	Relocate functions	18	
Reduce and reorganise		Desks	18	
the actual floor plan	6			
Reduce exhibition size	6	Cafes and restaurants	20	
Limit visit to one section	6	Set-up	20	
Balance sections	6	Additional measures	21	
One-way	7			
Close rooms	8	Talks, Auditorium	22	
New partitions	8			
One-way with shortcuts	8	Gift shop and bookshop	23	
Flow, parameters and support area	9	Building adjustments	23	
Reorganise the actual flow	9	Elevators, escalators, doors	23	
Analysis of the actual flow		Exhibition set-up	24	
and behaviour	9	MEP and HVAC	24	
Separate flows	9			
Waiting & lining up	10	Communication	25	
Lanes	11			
Floor markers	12	Online	25	
Vertical markers	12	Admittance	25	
		Social distance	25	
Flow, exhibition areas	13	Health measures	25	
Flow with different art				
typologies and installations	13	Venue	26	
Small rooms and artwork niches	15	Behaviour	26	
Waiting inside exhibition areas,		Health measures	26	
new holding areas	15			
Transition areas	15	Colophon	27	

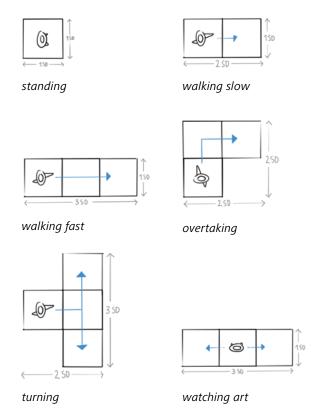
Occupancy

Distance

- Use advised national or local Social Distance of 1 m (WHO, HK), 1,5 m (EUR), 1,8 m (USA) or 2 m (CH) for all obvious situations, like desks, table set-ups, waiting lines etc.
- Anticipate an Intelligent Social Distancing approach for staff and visitors throughout the more free spaces in between.

Activities

- Distinguish different basic activities of a person. From standing, walking, turning corners, watching art to meeting people.
- In times of Social Distancing (SD) we can indicate the occupied space by a person in terms of units SD. That results in 'running SD' compared to running meters/feet for length and width. And 'square SD' for the occupied surface compared to square meters/feet.
- For example the space taken for slow walking then coincides with 1 SD wide, 2 SD long and 2 SD².



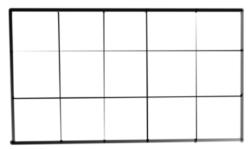
- Matrix of potential activities:

Activities	Occupied Space per person in Social Distance of					
	1 SD	1,0 m	1,5 m	1,8 m	2,0 m	
standing (queue)	1 SD²	1,0 m²	2,3 m²	3,2 m²	4,0 m²	
standing (watching)	3 SD²	3,0 m²	6,8 m²	9,7 m²	12,0 m²	
slow walking	2 SD²	2,0 m²	4,5 m²	6,5 m²	8,0 m²	
fast walking	3 SD²	3,0 m²	6,8 m²	9,7 m²	12,0 m²	
overtaking	3 SD²	3,0 m²	6,8 m²	9,7 m²	12,0 m²	
turning	4 SD²	4,0 m²	9,0 m²	13,0 m²	16,0 m²	

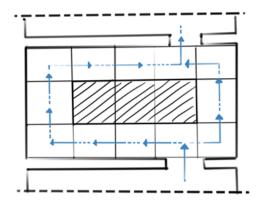
occupied space in m² per activity for different Social Distance

Defining occupancy

- Define occupancy on the actual activities of
- people on a exhibition floor.
- For example consider: not used or central areas in exhibition rooms, transition areas, specific corners or shape of existing space that might affect the real occupancy and the distancing scheme.
- Local regulations can vary (i.e. NL 10 m²/p.p and Austria 20 m²/p.p, etc)



theoretical occupancy m²/p.p.



real occupancy of floorplan with SD measures

- New technology can help monitoring congestion and access, limit the amount of additional staff and assistants needed and help manage crowds and ows. And show the public which area are less crowded.
- Take into account the amount of staff already
- present when defining the max occupancy.
- Occupancy management per section is possible, but might need extra holding areas per section.



automatic access system

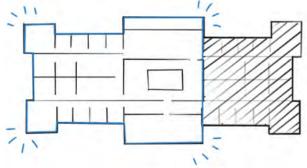
Floor plan

Reduce and reorganise the actual floor plan

 Several measures can be taken in order to reorganise the exhibition areas and their sections.

Reduce exhibition size

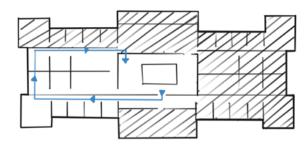
 In case of a big exhibition venue, consider to temporarily reduce the exhibition areas and/or sections, in order to simplify the management, reduce number of visitors and lighten the pressure on shared functions (entrance, cloakroom, queue and ticket desk, bar and restaurant).



portion of an exhibition floor plan

Limit visit to one section

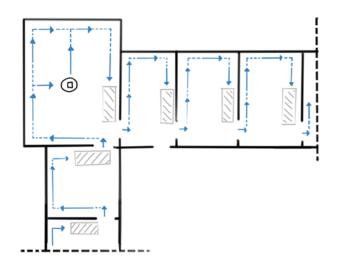
- A visitor interested in one section only would be able to visit it.



single section visit allowed

Balance sections

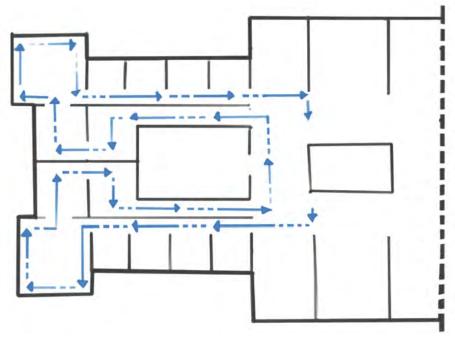
- Flow management per section and per room.
- Balanced occupancy.
- Guards with clickers, automatic counter at the entrance of each room, turnstiles, etc.
- Holding areas might be necessary per section, where people can wait before being admitted to the next section.



well balanced and managed occupancy between rooms and sections

One-way

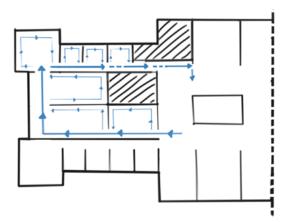
- Investigate the possibility of one-way routing for the whole exhibition or for certain sections.



one-way exhibition

Close rooms

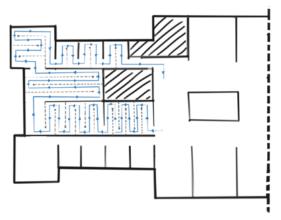
- Exhibition rooms that generate crossing flows can be temporarily closed.



closing of rooms with mixed flow

New partitions

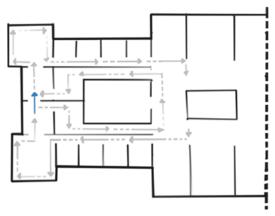
 Big exhibition rooms without a clear routing can be temporarily or semi-permanently reshaped in width and length with partitions and barriers and other design solutions.



management of a clear routing with modified layout

One-way with shortcuts

- In case of big exhibitions combine some two way aisles, and enough shortcuts and loops for staff and/or visitors.
- Clear pattern with complete length and cross aisles in the same direction.
- The flow of visitors will be more steady and less chaotic.
- Repetitive use of directional floor signs at regular intervals in all aisles.



one-way exhibition with shortcuts

Flow, parameters and support areas

Reorganise the actual flow

 Several measures can be taken in order to reorganise and optimise the flow inside the building.

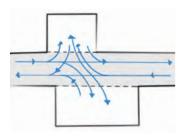
Analysis of the actual flow and behaviour

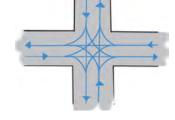
 Investigate routing and flow of people in the actual floor plan. Look into behavioural patterns for people when lining up, walking, crossing, choosing, meeting and seating at specific places and destinations.



- New flow strategies and routing for all destinations.
- Simplify routes that generate mixed walking, changing of direction and crossing.
- Reorder mixed areas without crossing flow of people.

- Group specific functions like desks for information, coat check and card pick up along a flow IN.
- Group specific functions like bookstores and gift shops along a flow OUT.





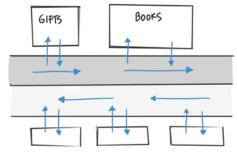
typical aisle with destinations



typical crossing

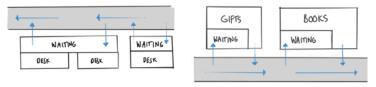
one-way aisle with destinations

one-way crossing



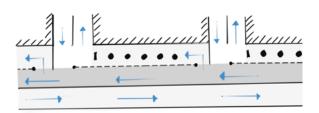
reorder mixed areas

 Arrange for waiting area per specific functions and destinations, apart and away from the main flow.



waiting area per separate function and destination

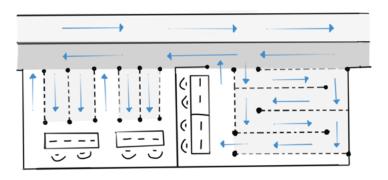
- Separate the flow of people that are walking, from the people that are lining up for a following entrance, hall or section.



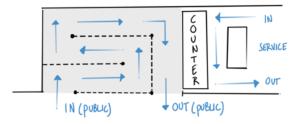
separate flow of people and waiting areas

Waiting and lining up

 Organise separate waiting areas per function and destination, each having their own lining up system.



lining up system per desk or group of desks



bar and restaurant: lining up system for take away

- Guiding and dividing elements for lining up: floor markers and physical vertical markers.
- Floor markers like guiding lines, cross line for stop and dots.
- Physical vertical markers like rope and stanchions.
- Place the dividing elements at the required Social Distance.
- Lines and dots at the required Social Distance.



rope and stanchions plus stop



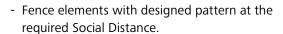
rope and stanchions plus dots and stop

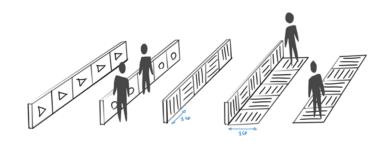


lines plus dots and stop



dots and stop





designed fence elements with SD pattern

Lanes

- Organise flow by lanes of different types, on exhibition floor and in lobbies and on concourses.
- One-way and two-way lanes to divide oncoming flows.
- Slow lanes for slowing down, watching art and stopping. Fast lanes for overtaking and moving faster to a further destination.
- Indicate lanes by lines on the floor, carpet changes, printed carpet or special tape.
- Encourage people to stay in their own lane and walk straight ahead.

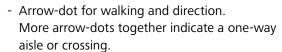


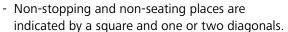


floor elements like lines and carpet changes for indication of lanes

Floor markers

- Floor markers: a few simple and easy to understand Social Distancing symbols on the floor. Understandable from all sides.
- Feet-dot for standing and distance. A few feet-dots indicate the desired distance.
- Repetitive coloured dots indicate distance, line ups and lanes.
- A small cross line for stop and longer (double) lines for guiding flow and direction.











dots as floor markers

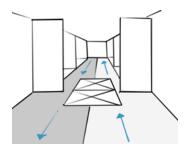




lines as floor markers



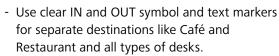
arrow dots for one-way indication



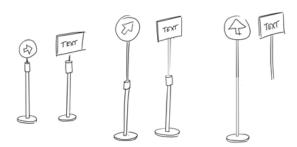
diagonals in a square indicating area to be kept free

Vertical markers

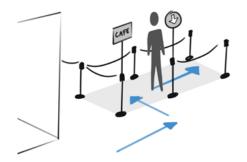
- Vertical signs that communicate information about destinations and directions.
- Lower or higher attachments to standard stanchions. Or self-standing poles with symbol or text signs.



 Indicate clearly along each lane where a specific area can be entered or where a specific line-up starts.



vertical signs for additional information

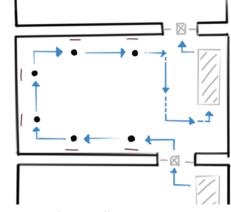


vertical signs for additional information

Flow, exhibition areas

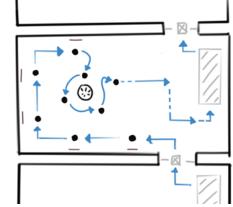
Flow with different art typologies and installations

- Art typology 1: 2D artworks on walls.
- Path on the perimeter of the room.
- Limit occupancy.
- Separate flow lanes from artwork viewing points or Stop & Go logic.
- Rearrange artworks considering SD.
- Holding area at the entrance when necessary.
 Manual or automatic turnstile to control balanced occupancy and max. number of visitors.



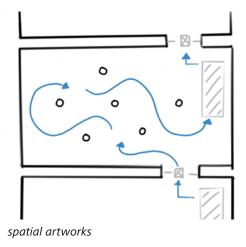
2D artworks on walls

- **Art typology 2**: 3D artworks and 2D artworks on walls.
- Path on the perimeter of the room when there are also 2D artworks on wall + organised flow around 3D artworks.
- Limit occupancy.
- Separate flow lanes from artwork viewing points or Stop & Go logic.
- Rearrange artworks considering SD if possible.
- Holding area at the entrance when necessary.
 Manual or automatic turnstile to control balanced occupancy and max. number of visitors.

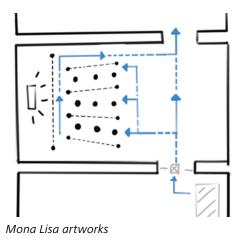


3D artworks on walls

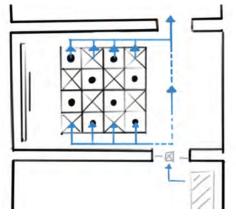
- Art typology 3: Spatial artworks (i.e. Richard Serra or Carlos Amorales).
- Free flow but limited number of visitors.
- Time slots or limited stay.
- Dedicated holding area at the entrance when necessary.
- Manual or automatic turnstile to control balanced occupancy and max. number of visitors.



- Art typology 4: Mona Lisa artworks.
- High appeal and big crowd.
- Rearrange artwork position inside the room.
- Artwork viewpoint organised in grid or lanes.
- Time slots or limited stay.
- Dedicated holding area at the entrance.
- Manual or automatic turnstile to control balanced occupancy and max. number of visitors.



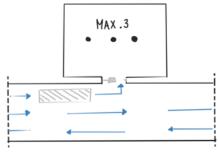
- Art typology 5: Audience seating in a room.
- Projection.
- Reading.
- Events with seated audience.
- Limited number of visitors / Time slots / Limited stay.
- Dedicated holding area at the entrance.
- Manual or automatic turnstile to control balanced occupancy and max. number of visitors.



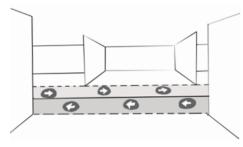
audience seating in a room

Small rooms and artwork niches

- One-way strategy or limited number of people inside small exhibition rooms or niches.
- Artwork viewpoint separated by the flow lanes.
- Stepping back in the aisle from a small rooms the visitor recognises the direction by the flow of people and by the directional floor signs.



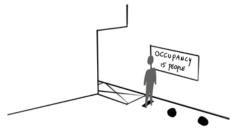
small room strategy



directional sign in aisle

Waiting inside exhibition areas, new holding areas

 Some exhibition rooms or parts of the room can be temporarily transformed into holding areas, especially when a limited number of visitors are allowed into the next room (spatial artworks, "Mona Lisa" artworks, etc).



new waiting areas

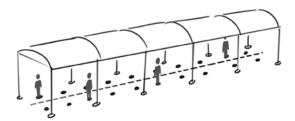
Transition areas

 No artworks along transition spaces (gates, doors, staircases, aisles): floor only. Especially during openings and events.

Before entering the building

Outside waiting area

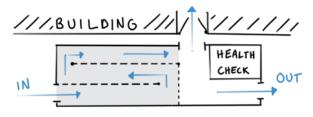
- A dedicated waiting zone (outside of the building) is needed.
- Waiting space required for amount of visitors in one time slot. Smaller time slots need less waiting area.
- Indication by lines and symbols, by fences or a combination of both.
- Use signage for indicating the waiting time.
- Consider adding a tent, roof or other protection, temporary or permanent.
- Limit number of people with time slots and online booking.
- Possibly provide seats and support (water, sanitising gel, etc).



roof shade over waiting line outside

Health check unit

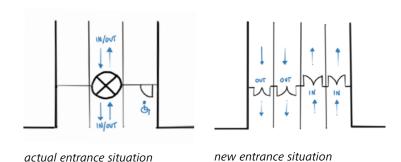
- If a health check is carried out, this is best done before visitors enter the exhibition area or even before entering the building.
- If tested positive one can easily leave again.
- A health unit can be combined with other temporary relocated functions (see entrance exhibition).



health unit added in front of the building

Door area

- Separate the IN and OUT.
- Use 2 sets of doors or use front and back doors for separate flows in and out.
- If possible, create extra entries/exits for visitors and for staff.
- Logical place to check your visitors for their online tickets or occupancy in general. If not allowed in (yet) one can still easily step aside.

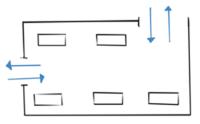


tompostmadesign

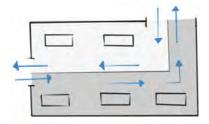
Entrance

Area set-up

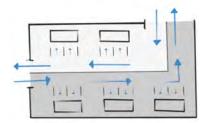
- An entrance area is often a mix of several functions placed together in a space before the exhibition.
- These can be ticket sales and pick up, card pick up, information, coat check, security check, lockers, bar and ticket check.
 - And maybe a bookshop and gift shop as well.
- Separate and control flows.
- Regulate and limit the access to the entrance using time slots and a more comfortable queueing system.
- Avoid crossing by clarifying the route and using temporary designed partitions.
- When less space is available a linear set-up of the area is possible.
- Visitors will pass by the different functions in a row, both for coming in and going out.
- People have to wait for each other.
- When the space is big enough each function can have its own queuing line and waiting area while people can pass from behind in a separate lane.
- When the space can be reorganised it might be possible to use part as a multiple area.
- The multiple part has waiting lines per function.
- In the linear part people queue after each other for all functions in a row.



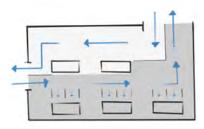
typical entrance area with several functions



linear set-up along a flow in and a flow out



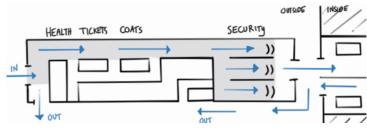
multiple set-up with waiting lines per function and a pass by lane



mixed set-up with partly waiting lines and partly linear

Relocate functions

- When the space is not optimal for separate lanes, flows and waiting areas other parts of the building might be temporarily useful.
- Relocating some functions outside in a tent might be a solution too.
- This can be combined with an outside health check.



outside tent or semi-permanent pavilion with additional functions in a linear set-up

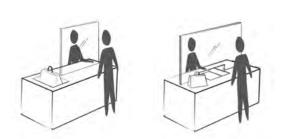
Desks

 Desks for information, card pick up, ticketing and coat check have protective shields and create enough distance with handout space between staff and visitors.



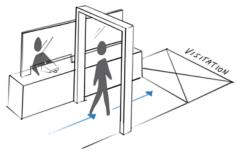
generic desk with protective shield and hand out space

 Bag check desk with a hole for self-checking of bag size and protective shield with hand over space for checking the content of bags.



bag check desk with hole, shield and bag hand over space, 2 types

- For a security check, desks like above can be used for checking bags.
- For a body check specified security regulations have to be followed.
- Security checks might take substantial time, therefore more parallel check units might be helpful.



security check line with bag check desks, scanner and visitation area

- Ticket checking can be done by self-scanners.



scanner for tickets, with or without bag rest

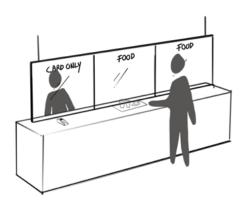
- For a host(ess) or guard a distancing help-fence can be helpful.
- This can be a dot or a circle on the floor or a more physical structure.





circular fence for host(ess)/guard in 2 parts

- Cashiers desks have a protective shield with a hand over space for card scanners and a sign for 'card only'.
- Food & beverage handout counters and desks have protective shields and a wide enough handover space.

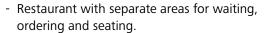


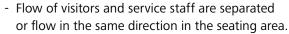
desks for cashiers and food & beverage handout with text shields

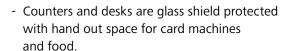
Cafes and Restaurants

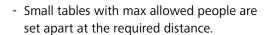
Set-up

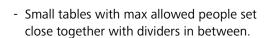
- Different activities are lined up per café or restaurant.
- Seperated dedicated space for waiting, ordering and pick up.

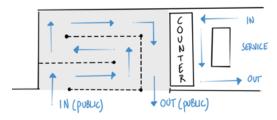




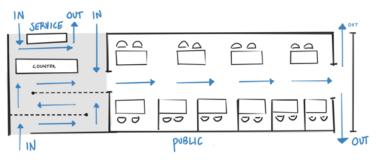








take away set-up



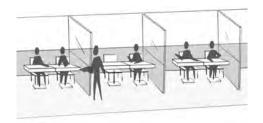
self-service restaurant with 2 types of seating, set apart and with dividers



shield protected counters for cashier and food hand out



small tables at required distance



small tables with dividers

- Alternative ways of setting tables with dividers and in zig-zag style.

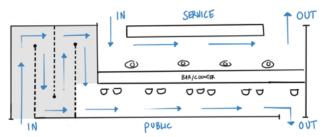


alternative set-up of tables with dividers



tables with dividers in zig-zag style

- Alternative restaurant with barstools at a high table-counter.

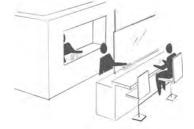


self-service restaurant with 2 types of seating, set apart and with dividers

- Once the visitor is seated, ordering, obtaining, eating and paying is done from the same position at the bar.
- Service and handout from a service lane behind a counter-bar.
- Kitchen service from a slit in the wall.
- Bar-counter potentially with a glass shield protection and hand out underneath.



bar-counter with seating and a service lane and kitchen behind



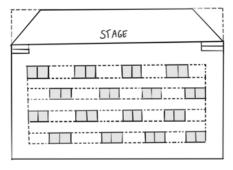
alternative with glass shield protection

Additional measures

- Required protection wear for visitors and staff.
- Regular cleaning of all surfaces.
- Reduced diversity of menu.
- Pre-order possibility for takeaway.
- Pre-packed cutlery and napkins.
- Empty tables, cleaned after each visit.
- When using table cloth to be renewed after each visit.
- Disposable menu cards.

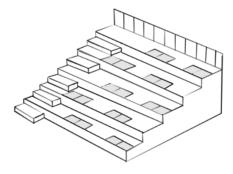
Talks, Auditorium

- In an auditorium room/hall the seats can be arranged in a different set-up.
- Checker board spread with sets of 2 chairs together.



checker board seating in an auditorium room or hall

- A freestanding seating structure can be reorganised in a similar way.
- Checker board placed cushions indicate the seating places.



tribune structure with checker board placed cushions

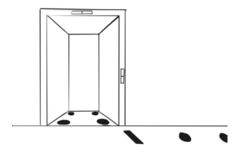
Gift shop and bookshop

- Consider creative solutions for gift shop and bookshop.
- Create an online store available through museum app/website.
- Shop only as a showcase.
- Shop only as a pick-up point, when delivery options are not feasible for museum.
- Shop as a warehouse: place objects of the shop inside the exhibition with a reference and collect your basket afterwards.

Building adjustments

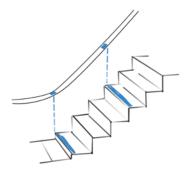
Elevators, escalators, doors

- Inside elevators dots indicate fixed standing positions.
- Indication on the outside for max load of people
- Waiting area next to the door, not blocking any flow.



feet-dots inside elevator and waiting line outside

- Marks on escalator steps or handrail indicate appropriate distance.
- Sign next to each escalator explaining that only every Xth step may be used.
- No overtaking on the escalator.
- All doors in the building that are used by visitors have an automatic opening system or stand open.
- Alternatively not frequently used doors can be equipped with elbow attachments to the handles.



marks on steps or handrail of escalator

Exhibition set-up

- Use advised national or local parameters for builders and shippers: allow for more days and hours for build-up, build-down and art to get in and out.
- For big installations use time slots for different areas and groups of workers.
- Longer working hours and working in shifts.
- Working in small groups.

MEP and HVAC

- Check local regulations and new local authorities measures.
- When the system allows it:
- Increase air supply to 6/8 room changes per hour.
- Avoid air recirculation.
- Use displacement ventilation as much as possible.
- Create air zoning of spaces.
- Consider energy consumption levels for lower capacities of the rooms.

In existing situations: it is possible to create temporary solutions, if planned in advance with the exhibition designer and the technical team.

Communication

Online

Admittance

- Opening hours and days.
- Admittance through small time slots, with a fixed duration.
- Online ticket sales.
- No physical card pick-up.
- Online VIP/Members card system.
- Online registering for parts of the VIP/Members program .
- Regulations for tours and special groups i.e. only in small groups and for specific time slots and following the same fixed routes.
- The total number of visitors allowed within the institution/event at any one time.

Social Distance

- Indicate the applicable social distance used,
 1 m (WHO, HK), 1,5 m (EUR), 1,8 m (USA),
 2 m (CH), 10 m² pp (Eur), 20 m² pp (Austria).
- Present floor plan with routing, queuing areas and functions (information desks, cafes, restrooms, etc.).
- Present phasing of visitors and occupancy of visitors per area /per space /per section/per function.
- Present internationally approved symbols to ensure that language doesn't raise a barrier.
- Sum up repetitive measures used at the venue.
- Measurements in place to organise visitor
- Explain the protocols, symbols and measures to visually impaired and people in wheelchairs.
- Availability of a smart live app system (for public and management) for monitoring congestions and help managing crowds and flows.

Health measures

- Communicate specific national and/or local restrictions and measures that will have to be followed at the venue.
- Provide links to any and all relevant governmental/local guidelines.
- Include those for in- and outbound flights, hotels and transportation.
- Availability of mandatory protection gear (masks, gloves, face coverings) at the venue.
- Supplies of mandatory and additional protection gear for first hand-outs and replacements (after eating/drinking?)
- Inform people if and how a health check will be carried out.
- Better visibility of staff as they need (more) authority.
- Support staff visibility by (potentially fashionable and/or branded) clothes, protection gear and masks.
- Potential fashionable and/or branded protection gear and special fashionable clothes, veils and textiles for visitors.

Communication

Venue

Behaviour

- Rules and measures regarding admittance and behaviour.
- Mandatory and/or advised social distance.
- Advise personal Intelligent Social Distancing for visitors and staff at the venue.
- Floor plan with queuing, routing and functions (information desks, cafes, restrooms, etc.).
- Phasing of visitors and occupancy of visitors per area /per space /per section /per function.
- Symbols and rules for queuing, routing and flow.
- On the spot symbols and rules for elevators, escalators, restrooms and doors.
 Rules for approaching staff, explanation of their visibility.
- Add protocol officer to staff for overview of discipline, health and distancing.

Health measures

- Health check at first possible moment and place with explanation.
- Mandatory protection gear (masks, gloves, face coverings, anti-bacterial hand gel).
- Hand out of (additional) protection gear at the
- Availability of sanitisation points at the entrance and along the exhibition route (gel dispenser, additional fountains, etc).
- Audio equipment to be cleaned after use.
- Additional cleaning and protocol for door handles, restrooms, etc according to local and national regulations.
- Let visitors know that you have replacements for protection gear after for instance eating and drinking.
- Protect your staff and visitors and follow international and/or local rules (when stricter) for protection rules and measures.
- Bring fashionable and/or branded protection gear and special fashionable clothes, veils and textiles to visitors' attention.

Colophon

Version 1.1 - May 2020

Disclaimer and License Agreement added.

Disclaimer

We emphasize that this document does not in any way provide legal guidance for how museums can be in compliance with applicable local or international COVID-19 rules and regulations. Each museum needs to be in compliance with such rules and regulations as are in effect at the relevant time and location. We do not accept any liability for such non-compliance or COVID-19 infections traceable to your museum.

You are advised to seek external advice on such compliance and inspection and approval of your proposed layout by the relevant governmental authorities whether or not you chose to implement one or more of our ideas. The primary goal of any actualized plans should be to avoid to the greatest extent possible any spread of the COVID-19 virus among visitors and staff.

License



This work is licensed under the Creative Commons You are free to: Share, copy and redistribute the material in any medium or format License. To view a copy of the license, <u>click here.</u>

Tom Postma Design B.V. KNSM-Laan 163 | 1019 LC Amsterdam | the Netherlands | +31 (0)20 622 85 69 www.tompostmadesign.nl