How to complete Marketing Project within shortest period (max. within 3 years 9 months) from time of decision to proceed with project

1. **Glossary & Notes:**
    a. Project = Marketing Project (MP)
    b. MP Start Date = Date of conceptual decision to proceed with MP. If land title comes after this date, it will be date we get land title + 15 days.
    c. MP End Date = Date of OC for the last building in the MP.
    d. MP Duration = MP End Date – MP Start Date
    e. In case of all MPs, MP duration target to be max. 3 y 9 m. In case of Very Large MPs, MP duration target shall be 4 years.
    f. In case of large masterplan with multiple (marketing) MPs, decision to go ahead with masterplan will be deemed to be decision to go ahead with first marketing MP. Decision on subsequent marketing MPs, shall be made separately and timelines shall apply accordingly. In such cases, the extent of the MP shall be defined by RCEO's office.

2. **Design (common across different cells in Design)**
    a. Have significant available resourcing to meet the project needs, especially in first 18 months from Project start.
    b. Have 10% of design budget of MP available as 'HoD contingency' for 'expediting' when project is being delayed or when changes occur.
    c. Note that every change has 'time' and 'cost' implications – even if such changes are necessary or needed, ensure additional internal and external resources are put to expedite work when changes occur – normal pace will delay project.
3. **Architecture**
    a. Keep building height as low as possible and max. 50 floors or less (<=150 m, with permissible tolerance of +/- 10% in select instances) from lowest level to terrace (this includes basement levels – see 3. Below)
    b. In buildings with height > 100 m., minimize structural elements on external façade to minimize slab cycle time. Cladding can be done using post drill cladding brackets or pre-fixing brackets. (Facade cost norms to be considered)
    c. Slab cycle can be faster if the floor plate is restricted to less than 6,000 sq.ft (single concrete pour)
    d. Avoid or minimize basements – each basement level should be counted as equivalent to 3 floors above ground wrt time taken. If basements are necessary, minimize excavation depth by following '*Podium and Basements Design Guidelines*'. Where > 1 basement, can do raft slab and immediately proceed for basement top slab (P0) <structural design to be done accordingly> - balance basements slabs can be done later. Also to minimize excavation depths, minimize services in the basement (try to accommodate in podium or service floors eg. wrt location of Central a/c plant, it is advisable to consider a service floor somewhere

midway as per MEP design considerations or Space on terrace can be used for central chiller plant.)

e. Minimize non-typical slabs – either in form or in height. These cause two negative effects wrt project duration:
   - time lost for formwork remake/resetting; and
   - loss of momentum which comes with repetitive cycles.

   Ideally, max. of 3 variations of FTF heights in a building:
   i. Ground floor – maybe higher due to lobby height requirements
   ii. Parking levels
   iii. All levels above typical levels
   iv. In select cases, special height floors maybe needed due to regulatory reasons eg. Fire check floor – in such cases consider how to continue with regular height floors wrt structural frame and doing these elements later i.e. off critical path. To be studied in Structural & formwork design on case by case basis

f. Complex shapes of RCC elements should be avoided where not adding significant value (e.g. Chajjas at Park , façade elements etc.)

g. Do not take significant planning risks wrt building's structural completion being done without any stops once it starts i.e. be conservative wrt height permissible and timing of FSI availability.

h. Locate KCAs and focus on design to ensure that they can be built as per desired timeframes (reference 'policy'):
   i. Entrance lobby for one building of one type (and any other non-typical buildings) – 1 year (+3 months per basement level if entrance lobby has basements under it) from date of pre-launch of that MP
      1. Points to consider:
         a. Location of meter room and electrical shaft to be such that cabling route has no/minimal impact on ceiling completion
         b. Flooring pattern to be independent of elevator door center
         c. Possibility of segregating labour movement to avoid access through entrance lobby
   ii. Entrance gate (or equivalent) of project/neighbourhood – Within 18 months from date of pre-launch of first MP served by that entrance gate.
   iii. Clubhouse & related greens – as per KCA timelines policy (generally 2 years from date of 1st pre-launch in MP)
   iv. Any other important KCAs - – as per KCA timelines policy (generally 2 years from date of 1st pre-launch in MP)
   v. Instead of waiting for DCUs to be complete, use high quality 3D renders to approve/attach critical finishing materials such as flooring, toilet finishes,facade etc. Standardization: 95%+ finishing elements for non-KCAs (i.e. unit, typical lobby, BoH areas etc.) to be standardized (i.e. clarity on

manufacturer (max. 2), size, colour and any other specification) for each segment in office and residential, such that project architect has to make virtually no decision wrt selection of these. This policy will also provide clarity on:

i. Which elements will vary from project to project in the same segment eg. flooring, fitted kitchen finish.
ii. Frequency of review <bi-annually (every 2 years in Dec), applicable for projects where finishing starts 3+ months after date of review>
iii. Approval for exceptions to standardized item (HoD Design)

vi. In tenanted/NA(Non-Agricultural Land) projects, wherein site survey / stringent boundary definition is not available or finalized, the design must proceed assuming a buffer zone of (1.5m) from available boundaries, till finalization of the site survey/stringent boundary.
vii. At concept design stage, significant attention to be paid to plan of KCAs, service areas, parking, column sizing etc. so that these are frozen before 1st approval. If any changes, they should be above plinth and covered in 2nd approval so that plinth checking is not affected.

4. Structure

a. In buildings with height > 100 m.:
   i. Opt for flat slab structure/ minimizing beams
   ii. Evaluate time and cost efficiency , construction logistics and availability of bathroom pods
   iii. Evaluate time and cost efficiency wrt use of composite / steel structural elements
b. Evaluate time efficiency and availability of pre-cast staircase.
c. Evaluate time and cost efficiency and availability of pre-cast structural members in building where quality is suitable eg. Parking buildings, buildings to be handed over to government, repetitive office buildings.
d. Avoid structural transfers (or even significant changes in column sizing) as far as possible. When column sizing is changed to optimize FSI, ensure that the changes are practical from a formwork perspective and happen no more than once every 50 mtrs.
e. Avoid multiple grades of concrete in structural and non-structural RC members on a given floor (core and external columns may be an exception).
f. Structure of all buildings > 30 m to be built with formwork+façade combination such that no external plaster is required (max. external plaster can be ground for non-typical ground floor).
g. In buildings > 30 m, all external walls must be RCC with minimum 150mm thickness. Avoid perimeter beams as far as possible.
h. Use of cantilever beams should be minimal.

i. Design pile foundation with shallow depth of excavation rather than raft on hard strata with deep foundations (time v/s cost).
j. Use of 8mm bars should be avoided in slab since quantity chairs required for supporting mesh increases. Preferable to use 10mm/12mm bars (cost neutral).
k. For building with jump form, pullout boxes (e.g. Connectrix) or 16mm couplers must be considered in core-wall for slab dowels. Alternatively, primary steel can be used for pull out bars (cost to be evaluated). (need to review steel procurement policy for buildings >150m)

5. Construction

a. Ensure that required equipment is available well in time, is reliable (high uptime), operated by trained personnel and maintained well. This will avoid loss of time due to equipment unavailability/delay.
b. Excavations must be completed with a view to complete the foundation works before onset of monsoon.
c. In case of > 2 basements, consider top down construction.
d. For Conventional buildings:
    i. schedule should be such to ensure external plaster and painting work completion well before onset of monsoon.
    ii. Premix Mortar for external plaster should be used (~40% higher cost for external plaster and 30% higher for internal plaster, but eliminates requirement of fine sand)
e. Evaluate use of premix mortar for internal plaster as well (especially when sand supply is limited)
f. Godown/Stores to be avoided in entrance lobby area.
g. In case of system formwork, use should be started as early as possible i.e. from ground floor onwards and if feasible, in basements. To facilitate this, adequate coordination is needed upfront to ensure that detailed design is available to order system formwork in timely manner.
h. If there are number of parking floors (or similar) , it may help to construct alternate parking floor slabs to reach habitable levels in short time. Left out slabs can be cast subsequently without impacting time lines.
i. All MEP related areas such as typical toilets, toilet shafts, common area shafts, lift shafts to be handed over as per the agreed schedule (preferable in the bathes of 5 floors) to ensure continuous work front availability for vendors.

6. Façade

a. Ensure early closure of design, procurement and testing for elements which are required to make the building water tight. Other façade elements may take lower priority.

7. MEP

a. Ensure that OC related works are awarded early and are completed well in advance of target completion date – this includes elevators, firefighting works and STP. (Including all MEP Contractors which are pre-requisite for Finishing works)

8. Economic Evaluation

a. For any MP, stop-start decision can only be made at 3 points:
   i. When decision to start project is made i.e. design process commences.
   ii. When decision to start construction or sales (whichever is earlier) is made.
   iii. When wing reaches 7th habitable floor when decision can be made (on wing wise basis) as to whether to only complete core and shell (Structure, façade: water-tight envelope and external paint but no cladding) or to proceed ahead as per original plan.
   Discipline will need to be maintained to not stop/slow MP at any other time eg. design cost upto construction start is <1% of project cost and hence, design once started should not be stopped till DD completion.

b. For any KCA, stop-start decision can only be made at 2 points:
   i. When decision to start MP is made i.e. design process commences <normally this is a dependent decision based on when MP is started and linked targets dates for KCAs>
   ii. When decision to start construction is to be made – this decision should be linked to target completion with 20% construction period buffer.

9. Timeline Owner:

a. Program manager in Ops Strategy, reporting to concerned Regional (D)CEO, shall be responsible for delivery of these timeline targets by coordinating across all operations departments (including liaison), with excessive focus on ensuring that there is significant slack – 6+ months – by the time RCC is completed. This can only be achieved by rigorous time management and problem solving from Day 0 to date of start of construction + 6 months <this is where we currently lose 12+ months>.

b. Each Program manager shall work on maximum of 3 marketing projects from MP start date to MP end date and be significantly incentivized for achievement of MP Duration target.

c. KRAs of Program Manager:
   i. Meeting Project Duration target
   ii. Ensuring KCAs are completed as per policy linked to construction start
   iii. % of milestones (payment and construction) achieved on time as per schedule agreed at construction start is >=85%

d. The Program manager role is not a reporting role, it is a '*take the bull by the horns*' problem solving role, which required great attention to detail, good relationship building skills and relentless focus on timeliness of outcomes.

e. These Program Managers may be shifted under PD/PMH once construction starts, if in the opinion of the RCEO, the PD/PMH is playing project management role (not construction management hat only).

10. Single metric across all operational teams

a. This shall be MP duration (see Glossary & Notes above) – total and elapsed till date.
b. All operational teams (including liaison) shall be incentivized for this and the metric shall be used as single metric of measurement of project success/failure across the operational org (just as sales nos. acts as single metric on S&M side).
c. In order to avoid loss of time prior to start of construction, a detailed list of key activities is enclosed herewith as *Annexure A*. Concerned teams should take note of the same and ensure that the said timelines are met.

11. Team Spirit and Communication:

a. All those responsible for the outcomes should remember that 'team spirit' and 'appreciation for what is done well' needs to be communicated as much as or even more than 'criticism for what is going wrong'. This is critical across departments/functions and special emphasis on this has to be placed by HoDs, RCEOs, PD/PMH and the Program manager.

Implementation next steps: Chintan S. and Chirag S. to work with concerned to ensure that the aforesaid is incorporated into policies / norms and communicated to all concerned teams by 31st March 2017. Implementation report to be submitted to MD by 5th April.

Annexure A

Key Activities to be undertaken prior to start of Construction for new MP:

No.	Action	Responsibility^	Duration from MP Start Date for MP on new land (<=)	Duration from MP Start Date for MP on existing development (<=)
1	Finalize site information: • Site boundary and retained structure survey • Geotechnical information • Assessment of constraints	Architecture)	30 days	NA
2	Appointment of Type 1 consultants (as evidenced by appointment letter): • Masterplanner (if applicable) / Architect • Structural Designer • MEP Engineer • Landscape designer • Interior designer (if applicable)	Design (along with Procurement team responsible for Consultants)	30 days	15 days
3	Finalize design brief and circulate to all consultants,after EVO evaluation with clarity on 1. and applicable regulations.	RCEO and Architecture	45 days	30 days
4	Complete concept design for Sales office	Architecture and ID	45 days	Generally NA
5	Complete site barricading	CM	75 days	Generally NA
6	Start work on Sales office and show flat (if applicable)	CM	75 days	Generally NA
7	Finalize Concept Design (including Round I VE + Budget and detailed timeline sign off covering all Ops functions (including liaison)). Such sign off will cover all 'for sale' buildings, 'for handover/not for sale buildings', KCAs and Infra related to the MP.	Architecture, Ops Strategy and VEE	105 days	90 days
8	Conduct Round I marketing briefing: - Project presentation with clarity on USPs and highlights - Initial layout and floor plans	Architecture	115 days	100 days

	- Tentative amenities and facilities			
9	Submit design (generally schematic) set for Round I approvals	Architecture	135 days	120 days
10	Finalize branding, MSD and give Round I briefing to Sales - Reconfirm pre-launch dates	Marketing	145 days	130 days
11	Initiate pre-launch preparation	Sales	150 days	135 days
12	Deliver on all required marketing tools (except model): - Detailed Design briefing to Marketing - CGIs - Rendered Floor Plans - Detailed Amenity List	Architecture	165 days	150 days
13	Finalize app form and agreement and handover to MIS (for RERA registration (if applicable)) and CC	Marketing (and Legal)	165 days	150 days
14	Issue setting out and excavation depth details to CM (for relevant buildings)	Architecture	165 days	150 days
15	Have pre-launch content ready, including: - Brochure - Website - Pre-launch campaign - Site branding completed - Conduct Sales training	Marketing	180 days	165 days
16	Obtain Round 1 approvals (sufficient such that construction and Sales can start)	Liaison	180 days	165 days
17	Initiate demolition (if applicable) and excavation	CM	180 days	165 days
18	Pre-launch CP meet	Sales	185 days**	170 days**
19	Obtain RERA registeration (if applicable)	MIS	195 days	180 days
20	Pre-launch starts - open for bookings	Sales	200 days**	185 days**
21	Issue VFC package for Civil works upto ground (for relevant buildings)	Architecture	210 days	185 days
22	Have Sales office and show flat ready for external use (after desnagging etc.)	CM Finishing and CM General	240 days	Generally NA
23	Deliver model (layout/building)	Architecture	240 days	185 days
24	1st significant pour of concrete	CM	240 days	210 days
25	Obtain all approvals	Liaison	270 days	240 days
26	Complete Design Development (all packages) with VE thereto and handover budget to Site Commercial team	Architecture + VEE	365 days	300 days

a. All timelines above refer to completion of the said action, unless otherwise noted. Start will need to be done sufficiently in advance in order to achieve the said goals.
b. Overall to be monitored by Program Manager in Ops Strategy.
c. ^When department/cell name is stated, responsibility lies with the seniormost associate from the said department/cell who is directly handling the MP. If no one is appointed to directly handle the MP, the HoC/HoD will be deemed to be responsible.
d. # Maximum of 2 Approvals can be taken for any MP – see 'Design – Liaison Coordination Timelines & Process'.
e. ** - Can be adjusted based on sales calendar