Track 7: Urban governance and planning profession: planning for future

Developing the regulations for rapid urban growth: the new Centre Plans and TOD of the Doha metropolis, Qatar

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Agenda

- Introduction to Qatar, planning development
- Boosting growth – FIFA, QRail, real estate development
- Regulations: Interim Zoning, QNDF, MSDP, Centres
- TODs role in the development
- Lessons learnt, future plans
The stadiums we have proposed for the 2022 FIFA World Cup Qatar™ are some of the most ambitious, visually exciting venues ever conceived.

1. Al Bayt Stadium – Al Khor City
2. Al Rayyan Stadium
3. Al Thumama Stadium
4. Al Wakrah Stadium
5. Education City Stadium
6. Khalifa International Stadium
7. Lusail Stadium
8. Ras Abu Aboud Stadium

The stadiums will come in all shapes and sizes, and be designed to reflect the rich culture of Qatari culture. While it’s important for Qatar to honour its past, the stadiums will all be built with three leading-edge priorities in mind:

– Access and comfort
– Sustainability
– Post-tournament legacy
Stadiums

- Khalifa International Stadium
- Al Thumama Stadium
- Al Wakrah Stadium
- Al Bayt Stadium – Al Khor City
About Qatar Railways company: commonly known as QATAR RAIL, is a state-owned railway company, responsible for rail transport in Qatar. Established in 2011

Qatar Rail’s answer to Qatar’s transportation challenges lies in three major projects:

- **The Doha Metro**: a mostly underground rail network which connects communities within Doha and its suburbs
- **The Lusail Tram (LT)**: a tram network providing comfortable and convenient travel within the new city of Lusail
- **The Long Distance Rail**: connecting cities in the north and west with Doha, and the country with the forthcoming GCC rail system

Once all the projects are completed by 2030, the three networks will act as one integrated system, allowing passengers to easily transfer between them.
Metro network
World class metro
Regulations shaping a place in Qatar

Environment, Transportation, Utilities
Qatar National Development Framework (QNDF)

General Places Non-Centres
Municipality Spatial Development Plans (MSDPs)

Centres
Centre Plans and Regulations

Centre Plans and Zoning Regulations
Volume - 4
Under QNDF, the Spatial Strategy Concept for 2032 sets Centers across five (5) Municipalities on a hierarchical order:

1. Capital City Centre
2. Metropolitan Centre
3. Town Centre
4. District Centre
5. Local Centre
## Centres in QNDF context

Centres’ Roles and Standard Facilities according to their hierarchy:

### National Growth Centers
- **Function:** High and medium density, mixed-use developments to provide national and city-wide needs for Government, commercial and community facilities.

<table>
<thead>
<tr>
<th>Density Level</th>
<th>Centre Type</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixed Density</td>
<td>Town Center</td>
<td>Complement metropolitan centers by serving catchments of sub-regional significance</td>
</tr>
<tr>
<td>High Density</td>
<td>Metropolitan Center</td>
<td>Regional significant nodes of key employment concentrations and secondary administrative focus</td>
</tr>
<tr>
<td></td>
<td>Capital City Center</td>
<td>Nationally significant area of highest quality built environment and function</td>
</tr>
</tbody>
</table>

### Local Area Centers
- **Function:** To provide daily and weekly needs to new and existing communities.

<table>
<thead>
<tr>
<th>Density Level</th>
<th>Centre Type</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Density</td>
<td>The Neighbourhood Center</td>
<td>Provide daily needs of community with daily mosque and park at heart of community where people can meet and socialise</td>
</tr>
<tr>
<td>Medium Density</td>
<td>The Local Center</td>
<td>Provide weekly retail and community facilities around local park and Juma Mosque</td>
</tr>
<tr>
<td></td>
<td>The District Center</td>
<td>Provide alternative housing options and additional community facilities around a transit station</td>
</tr>
</tbody>
</table>

**Local Area Level**
- Daily Mosque
- Neighbourhood Park
- Bus stop or feeder bus
- Local food retail

**Distance**
- 250m
- 400m

**Adjacent Facilities**
- Juma Mosque
- Local Park
- Bus Stop
- Community facilities (e.g., kindergarten)
- Supermarket and other retail

**Distance**
- 400m

**Adjacent Facilities**
- Health care facilities
- District Park
- Transit Station
- Schools
- Large supermarket
Hierarchy of centres

West Bay; Downtown Doha; Airport City

Lusail; Al Rayyan North; Al Rayyan South

Al Sadd; Matar; Gharrafa; Umm Slal Mohammad; Umm Qarn; Al Shamal; Shahaniya

The Pearl; Qatar University; Doha Wholesale; Barwa City; Dukhan; Najma; Umm Ghuwailina; Nuaija; Rawdat Al Khail; Fereej Kulaib; Al Soudan; Lubeib; Rawdat Al Hammam; Jumailiya; Karaana
Centres and TODs

An urban center/center is the heart of community and usually in planning term associated to **Transit Oriented Development (TOD)**:

- **Higher population density** compared to the surrounding areas
- **Higher development density** in comparison to the surrounding areas
- Concentration of **greater mix use**
- **A movement hub**
- **A social cultural and economic focus** of the community
- **A provider for the community’s needs, services and public facilities**
Centres distribution and the metro
Municipality Spatial Development Plans
Important role of metro stations in centres TOD
## Mixed Use Typologies

### Typology

<table>
<thead>
<tr>
<th>Zone Code</th>
<th>Floor</th>
<th>Leading Use</th>
<th>Building Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>MU2</td>
<td>G+6</td>
<td>Office</td>
<td>Attached Block</td>
</tr>
</tbody>
</table>

### Minimum Lot

<table>
<thead>
<tr>
<th>Lot Size</th>
<th>Lot Width</th>
<th>25m</th>
</tr>
</thead>
</table>

### Maximum Building Coverage

<table>
<thead>
<tr>
<th>Base / Podium</th>
<th>Higher Building</th>
<th>65%</th>
</tr>
</thead>
</table>

### Minimum Setbacks

<table>
<thead>
<tr>
<th>Base / Podium</th>
<th>Higher Building</th>
<th>0m</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Use Split – Required Number of Floors per Use

<table>
<thead>
<tr>
<th></th>
<th>Retail</th>
<th>Office</th>
<th>Residential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Maximum</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

### Floor Area Ratio

<table>
<thead>
<tr>
<th></th>
<th>Maximum</th>
<th>4.20</th>
</tr>
</thead>
</table>

### Podium / Basement

<table>
<thead>
<tr>
<th>Number of Basements</th>
<th>Maximum</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Podiums</td>
<td>Maximum</td>
<td>3</td>
</tr>
<tr>
<td>Minimum Ground Floor Use</td>
<td>Retail Office</td>
<td></td>
</tr>
<tr>
<td>Minimum Retail/Office Depth in Ground Floor and Podium Floors</td>
<td>8m</td>
<td></td>
</tr>
<tr>
<td>Maximum Retail/Office Depth in Ground Floor and Podium Floors</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Arcade Depth (if required by Active Frontage)</td>
<td>Minimum</td>
<td>2m</td>
</tr>
</tbody>
</table>

**DRAFT - CONFIDENTIAL**
The format regulates the uses and ‘built form’ per zone in narrative way.
The format is familiar for some years in Qatar.
It is easy to digest.
It is simple.

One typology to fit all (different towers in West Bay, complicated Downtown case, Airport City most suitable).
Not entirely applicable for CCC.
Doesn’t address small plots.

Producing new form based regulations:
- ZONING
  + FORM
- Applicable for all cases, including small lots.
- Most appropriate.
- Individual and context based.
- Needs most workload.
- Allows clarity for developers and officers.
**Achievable Parameters Comparison**

<table>
<thead>
<tr>
<th></th>
<th>Coverage</th>
<th></th>
<th>FAR</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Regulations</td>
<td>Ideal</td>
<td>Real</td>
<td>Regulations</td>
<td>Ideal</td>
</tr>
<tr>
<td>Interim Zoning</td>
<td>60%</td>
<td>50-58%</td>
<td>12-57%</td>
<td>n/a</td>
<td>2.8 (2.5-2.9)</td>
</tr>
<tr>
<td>MSDP R4</td>
<td>50%</td>
<td>44%</td>
<td>23-44%</td>
<td>2.2</td>
<td>2.2</td>
</tr>
<tr>
<td>Mixed Use – Strip</td>
<td>70%</td>
<td>62%</td>
<td>58-62%</td>
<td>3.1</td>
<td>3.1</td>
</tr>
<tr>
<td>Mixed Use – Block</td>
<td>70%</td>
<td>62%</td>
<td>58-62%</td>
<td>3.1</td>
<td>3.1</td>
</tr>
<tr>
<td>Form Based</td>
<td>80%</td>
<td>66-73%</td>
<td>66-73%</td>
<td>3.3 (3.6)</td>
<td>3.5 (3.3-3.6)</td>
</tr>
</tbody>
</table>

**Images:**
- Interim Zoning
- MSDP
- Mixed Use – Strip
- Form Based
Tower block example

Development within the envelopes
Conclusion and main lessons learnt

- Qatar is a rapidly developing and urbanising country
- Regulations – both the framework and law, as well as zoning – needs to follow this growth
  - From single use zoning to mixed use
  - From individual lots to integrated form
  - From universal to tailored regulations
- Major events and investment as a driving force to development
- Opportunities arise from shifting to public transit, although early stage
- Planning needs to follow the world trends, but ultimately be tailored to local needs, possibilities and culture
Thank you