

Updates on Transportation Plans of Makkah Metro

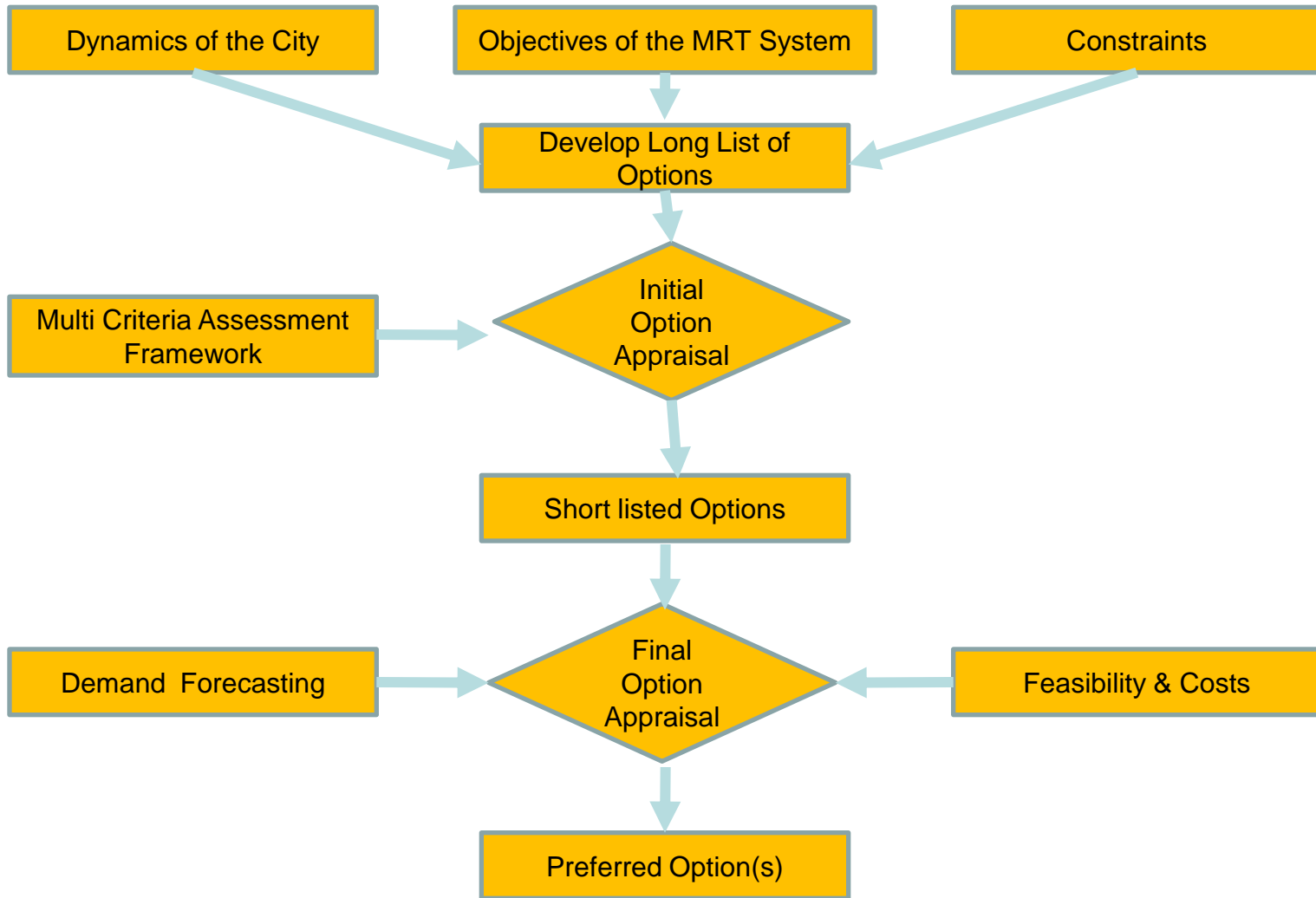
An aerial, grayscale photograph of Makkah, Saudi Arabia. The Kaaba is the central focus, surrounded by the Grand Mosque and other religious structures. The city's dense urban landscape, including numerous high-rise buildings, is visible in the background and foreground. The title text is overlaid in bright yellow at the top.

**Saad A. AlGadhi, Ph.D., Chief Executive Officer
Makkah Mass Rail Transit Company (MMRTC)
Doha, Qatar -- May 7, 2012**

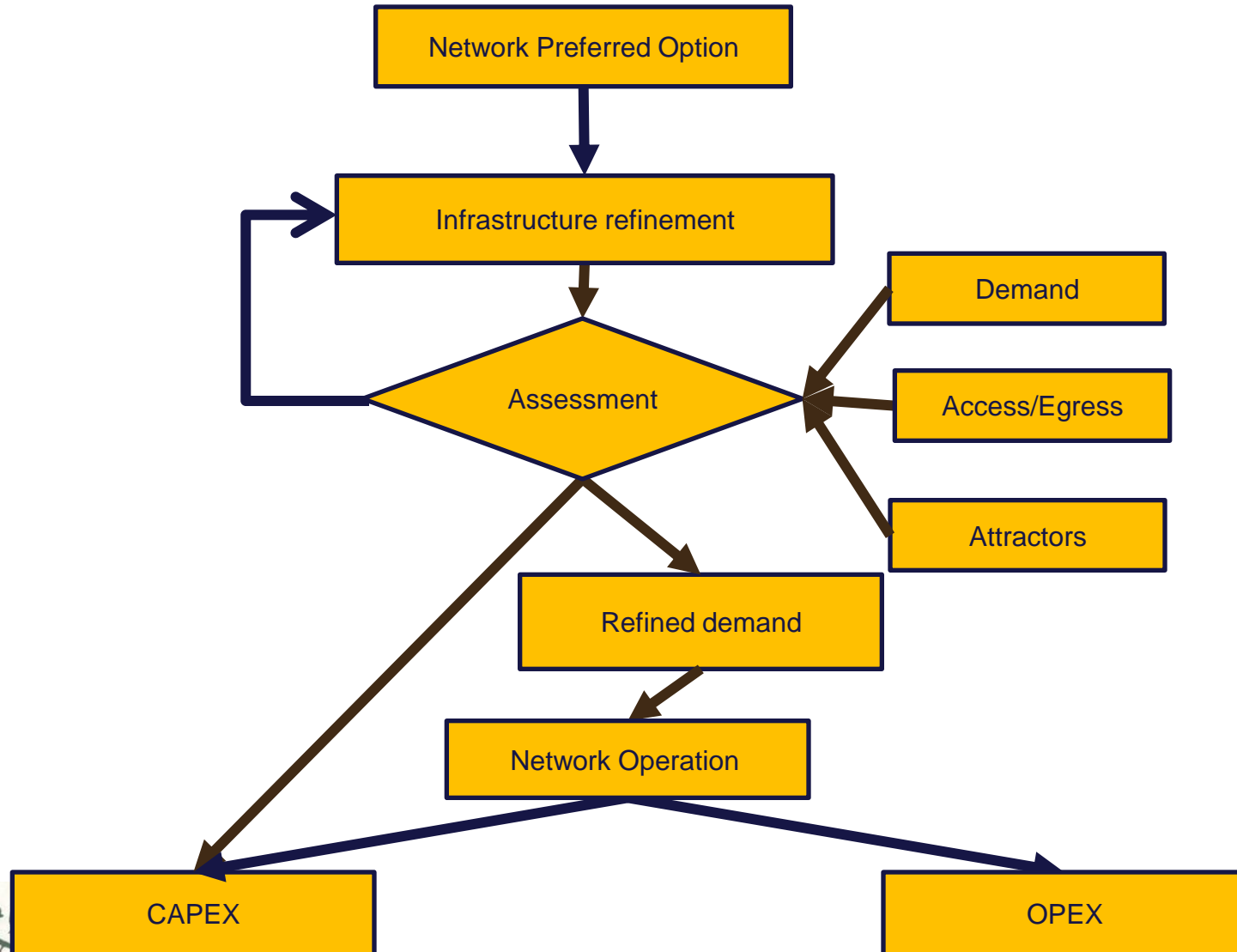
Makkah Mass Rail Transit (MMRT) Feasibility Study

AlBalad AlAmeen has conducted the MMRT feasibility study, and prepared the concept plans and documents for the proposed MMRT network for the Greater Makkah in framework of a PPP investment.

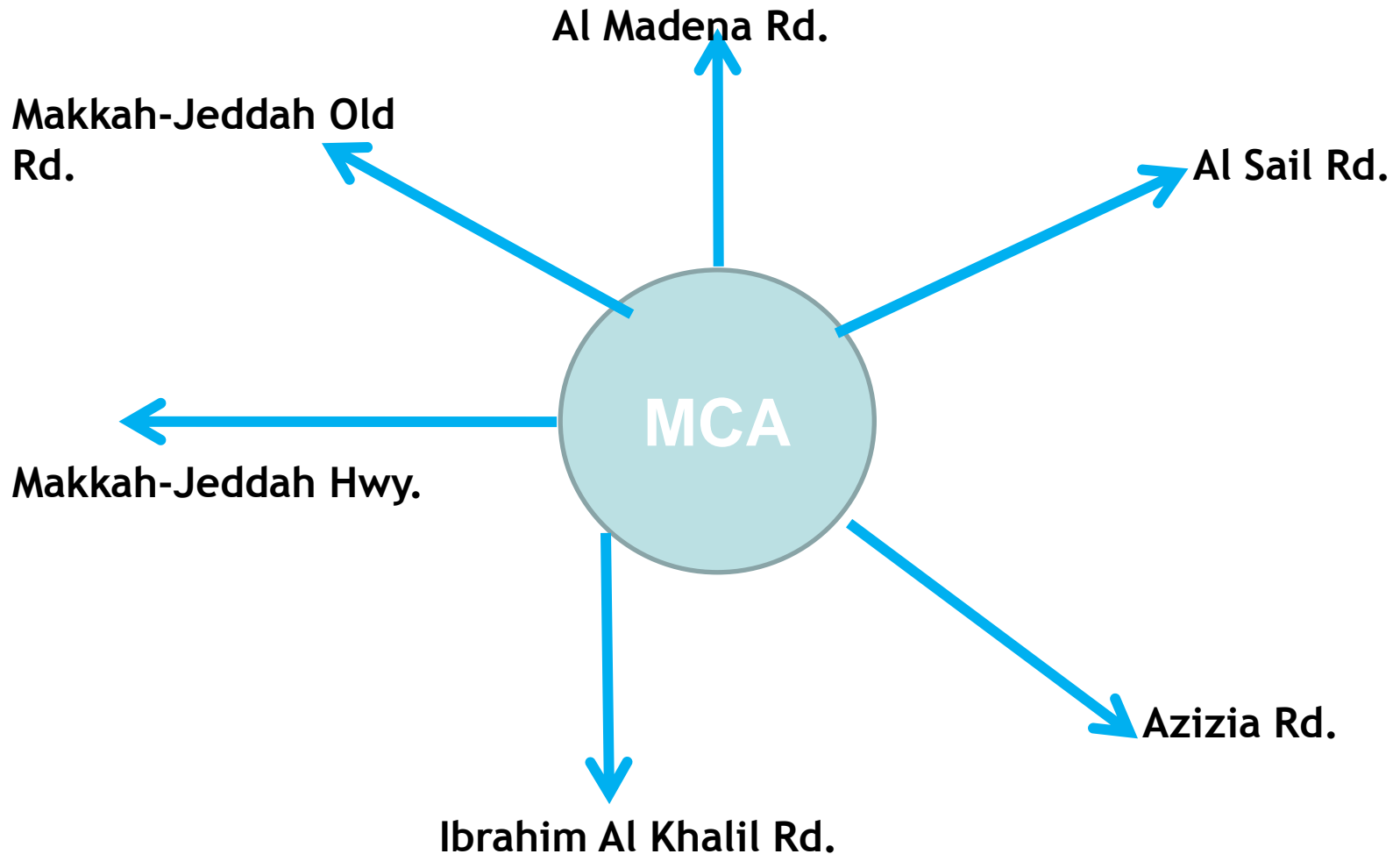
Study Process



MMRT Conceptual Process

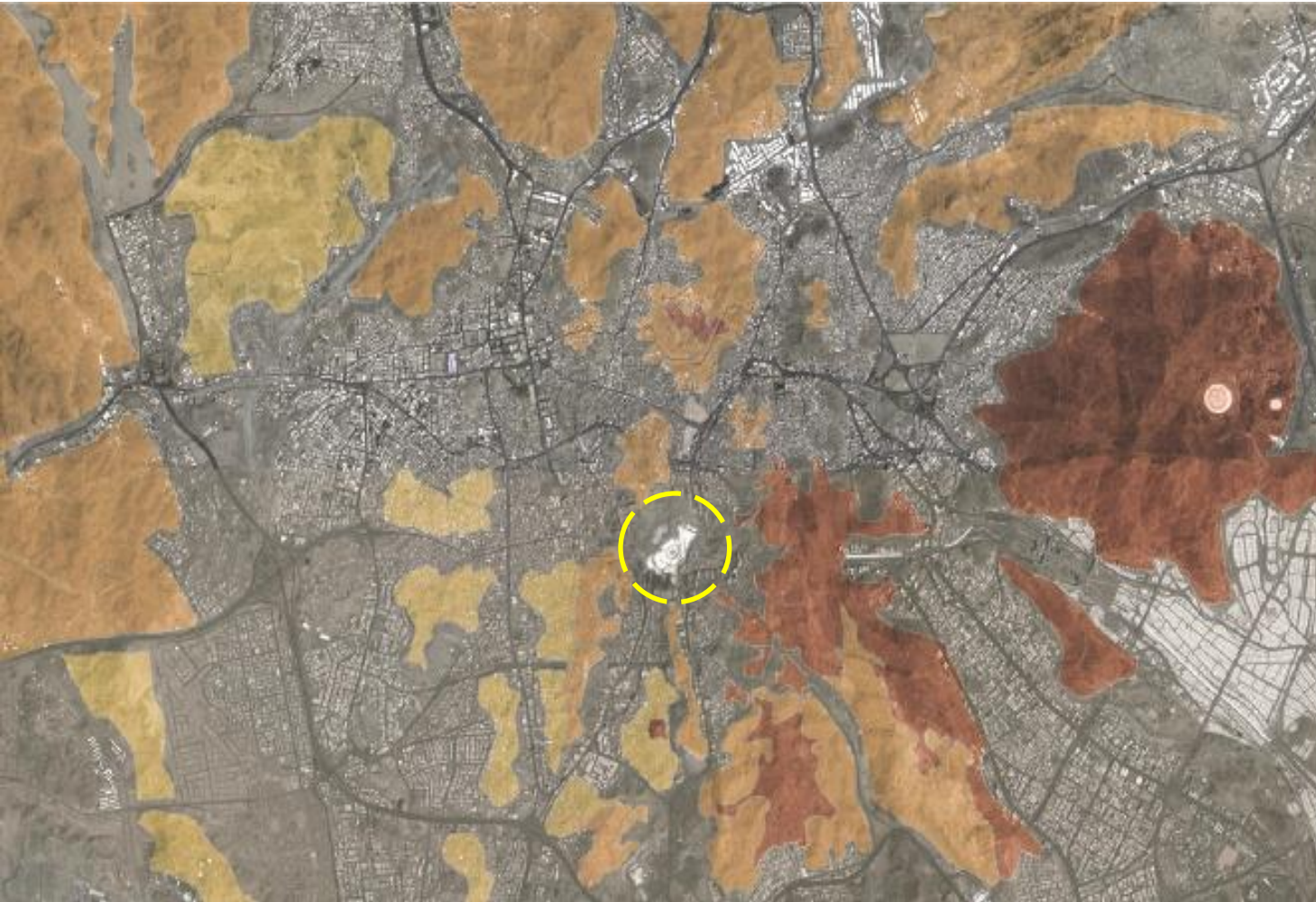


Network Strategy



The alignment outside MCA follow major arterial roads

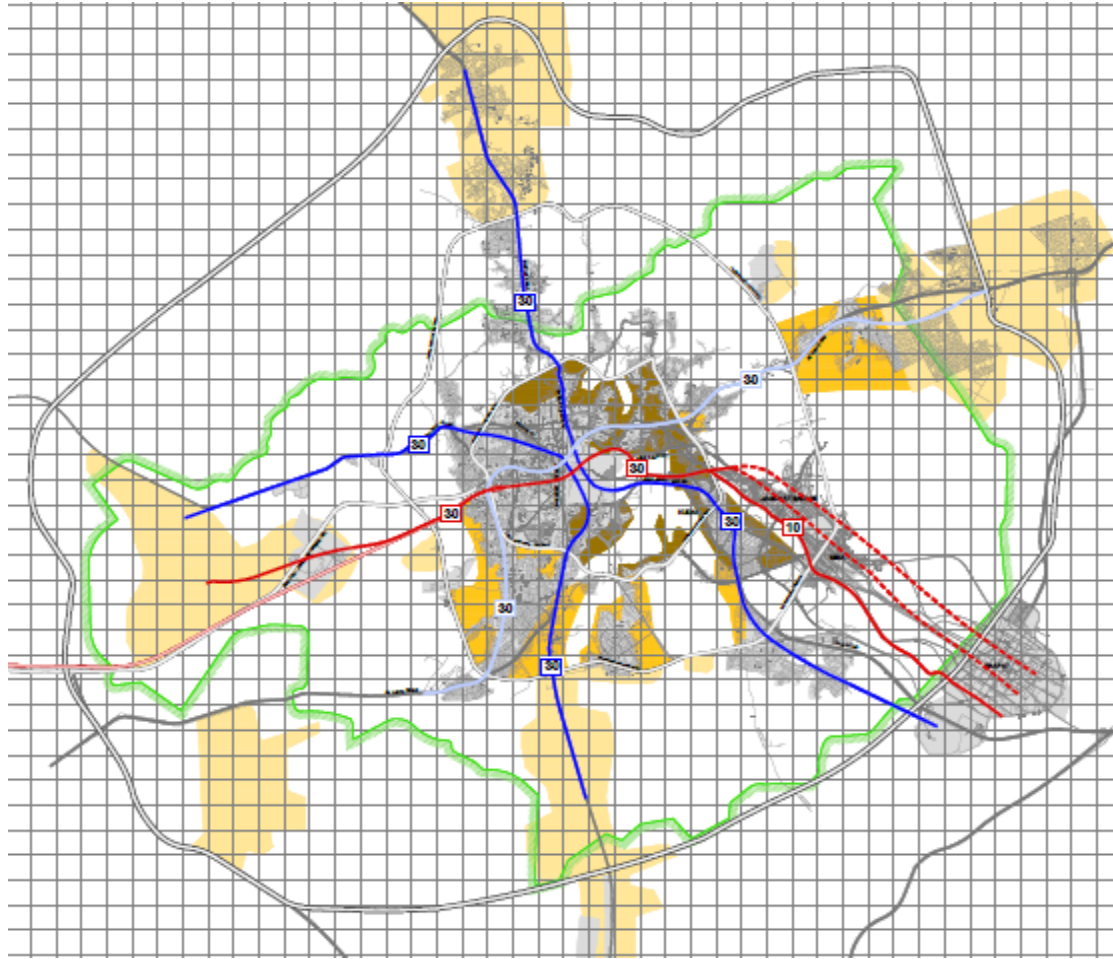
Alignment Constraints



Topography

-  Very High Hills
-  Medium Hills
-  Low Hills

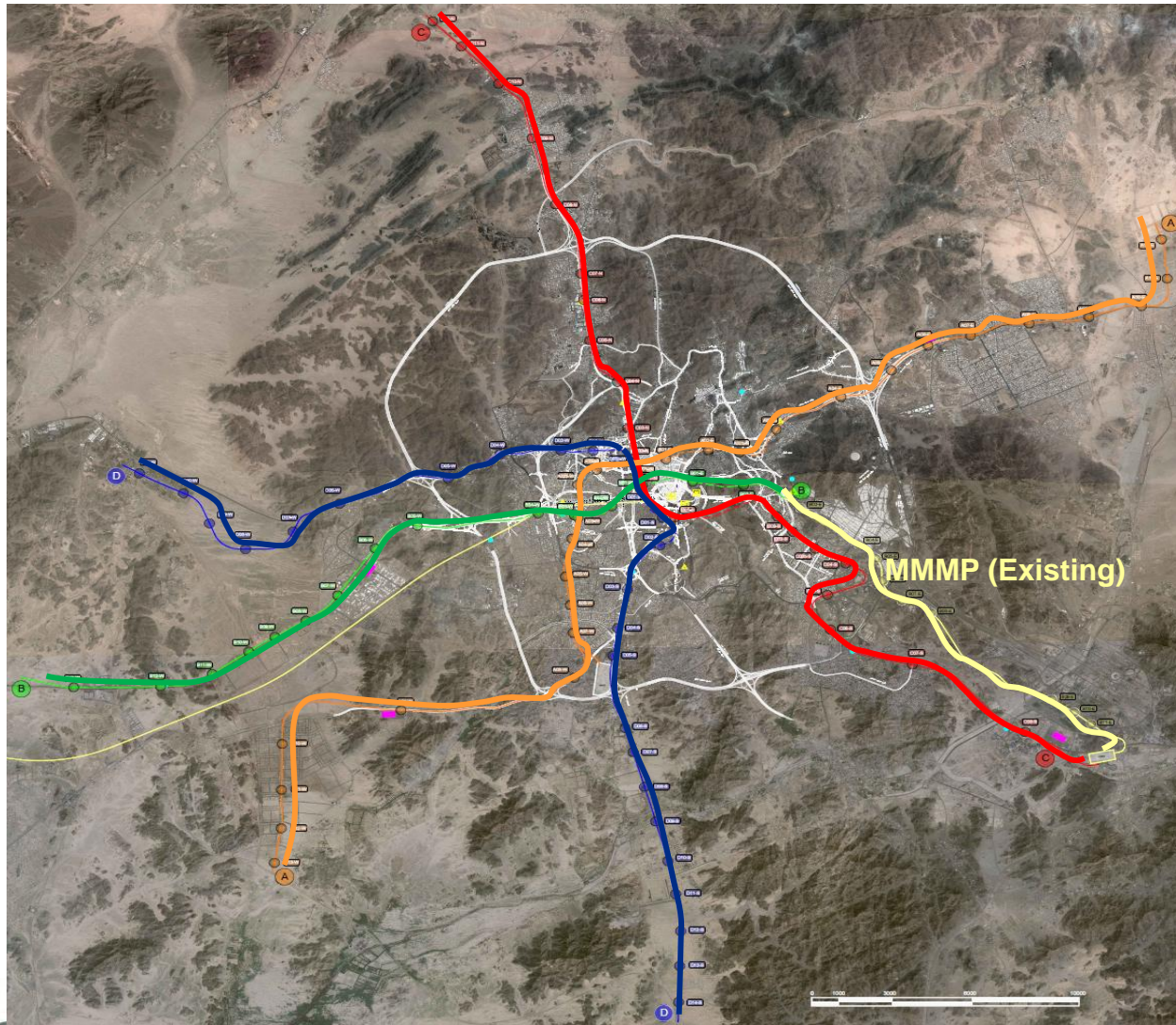
Preferred Network



Selected for

- *Demand*
- *Attractivity*
- *Accessibility*
- *Environment*
- *Deliverability*
- *Financeability*

Final Network



4 lines:

Line A: From Al Sail Road (East) to Al Laith Road (West) via North of Al Haram

Line B: Extension of Mashaaer Line (Jamarat) to HHSR Railway Station and to Makkah-Jeddah Expressway (West) via Shamiyah Project

Line C: Umm Al Qura University (South) to Al Madinah Road (North) via South of Al Haram

Line D: Ibrahim Al Khalil Road (South) to Old Makkah-Jeddah Road (West)

MMRT Network Description

Line A	54.2km	27 Stations
Line B	32.1km	15 Stations
Line C	48.1km	21 Stations
Line D	47.3km	25 Stations
Total	181.7km	88 Stations

**MCA Tunnel =
35.6 km
21 Stations**

**Arterial Roads Viaduct =
146.1 km
67 Stations**

Examples:

Cairo: 66 km, 53 Stations

Dubai: 70 km, 50 Stations

Tehran: 120 km, 80 Stations



Metro Makkah

Delhi: 190 km, 142 Stations

Paris (Center only): 800 km, 560 Stations

London: 436 km, 310 Stations



Network Cost Summary (per phase)

Phase	Line	Length in km	Stations N.O.	Investment MSAR
1	B + C	39.5	20	25,785
2	A	27.7	18	17,220
3	D	12.4	9	7,721
4	C	11.5	5	3,695
5	D	22.8	10	5,765
	All network	113.9	62	60,186

Possible network after 2029 = 182 km with 88 stations

Size of the Transport System

	Line A	Line B	Line C	Line D
<i>Selected System</i>	MRT	MRT	MRT	MRT
<i>Rolling Stock</i>	4 / 8 cars	6 cars	6 cars	4 cars
<i>Platform Length</i>	200 m	140 m	140 m	100 m
<i>Min. Headway Friday</i>	145 s	400 s	195 s	210 s
<i>PPHPD</i>	48,660	12,125	24,920	16,800
<i>PPHPD demand</i>	47,200	12,100	24,500	16,300

Increasing capacity during Ramadan

	FRIDAY (100 %)	RAMADAN (114 %)	Max Reserve Capacity (161 %)
Line A	47,200	52,266	56,450
Line B	12,100	12,100	34,700
Line C	24,500	30,375	40,500
Line D	16,300	19,600	29,400

Same fleet – Different operating strategy
 Extra rolling stock required

MMRT Procurement

**Transaction Advisory (TA) Services
(Financial & Legal Advisor)
for Procurement of MMRT Project**

TA Scope of Work

Stage One

1. *Feasibility study review*
2. *Detailed Planning*

Stage Two

3. *Pre-Qualification*
4. *Request for Proposal (“RFP”)*
5. *Proposals Evaluation*
6. *Best and Final Offer (“BAFO”)*
7. *Preferred Bidder to Financial Close*

Short-listed delivery option

Short-listed delivery option for the Project has the following features:

- One EPC contract to design and build the infrastructure for Line B.
- One Public Private Partnership (“PPP”) contract to Design, Build, partly Finance and Maintain the infrastructure for Phase 1 of Line C.
- One PPP contract to DBFM the rolling stock and control systems for Line B and Phase 1 of Line C (“Stage 1”).
- One Operation contract for the operation of Stage 1 including the maintenance of the infrastructure for Line C.
- A Contract Management Function (“CMF”) overseeing the delivery and ongoing management of the contracts above.

	Construction	Maintenance	Operation	
EPC	Infrastructure Line B	Infrastructure Line B	Infrastructure Line B	TOC
	Stations Line B	Stations Line B	Stations Line B	
	Shared Depot	Shared Depot	Shared Depot	
PPP	Infrastructure Line C	Infrastructure Line C	Infrastructure Line C	
	Stations Line C	Stations Line C	Stations Line C	
	Shared Depot	Shared Depot	Shared Depot	
PPP	Rolling stock	Rolling stock	Train Operation	
	Control Systems	Control Systems	Control Systems	

Procurement Sequencing Strategy



Thanks for your attention

