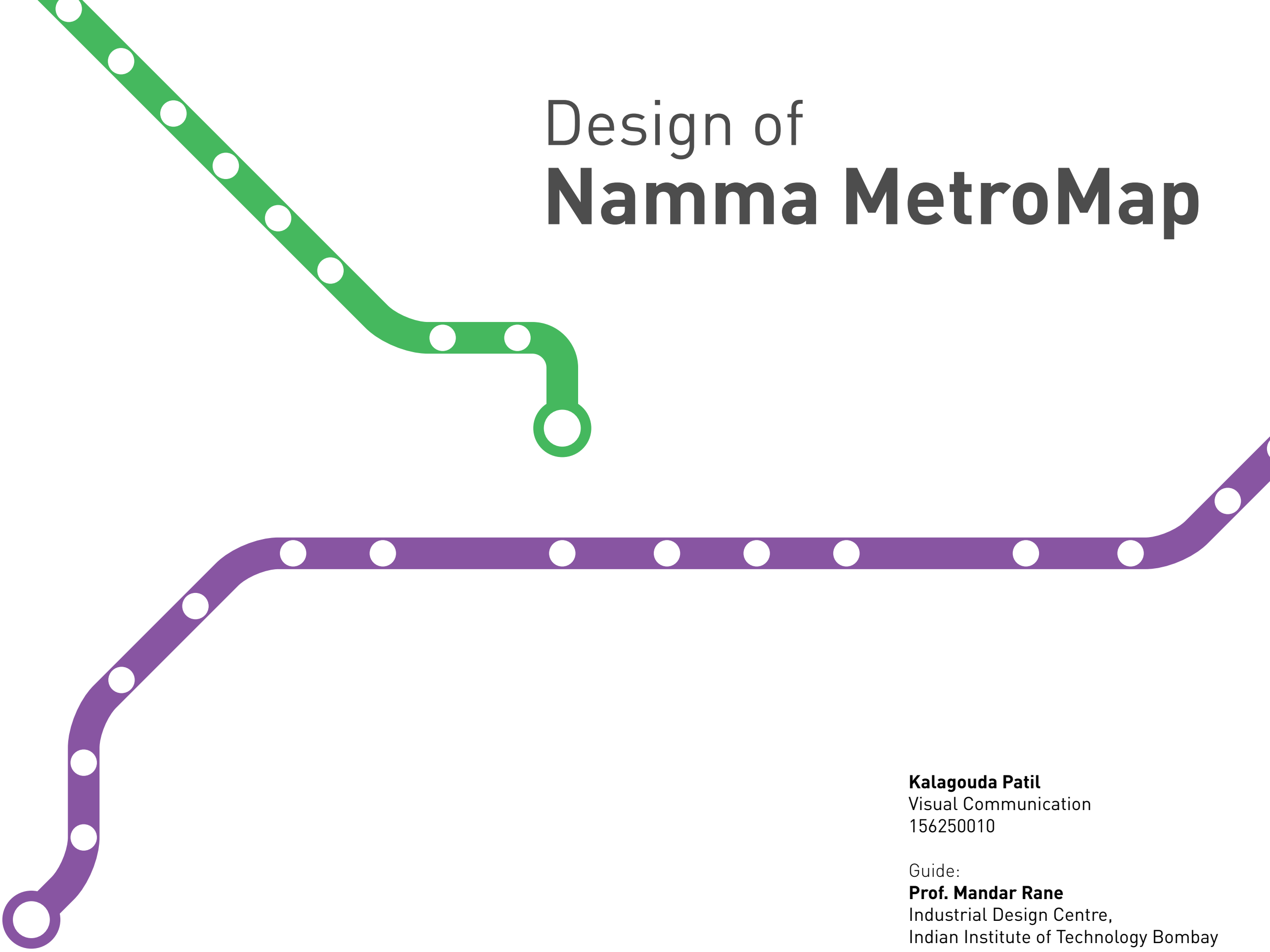




Design of **Namma MetroMap**

Kalagouda Patil
Visual Communication
156250010

Guide:
Prof. Mandar Rane
Industrial Design Centre,
Indian Institute of Technology Bombay
Powai. Mumbai - 400076

Namma Metro

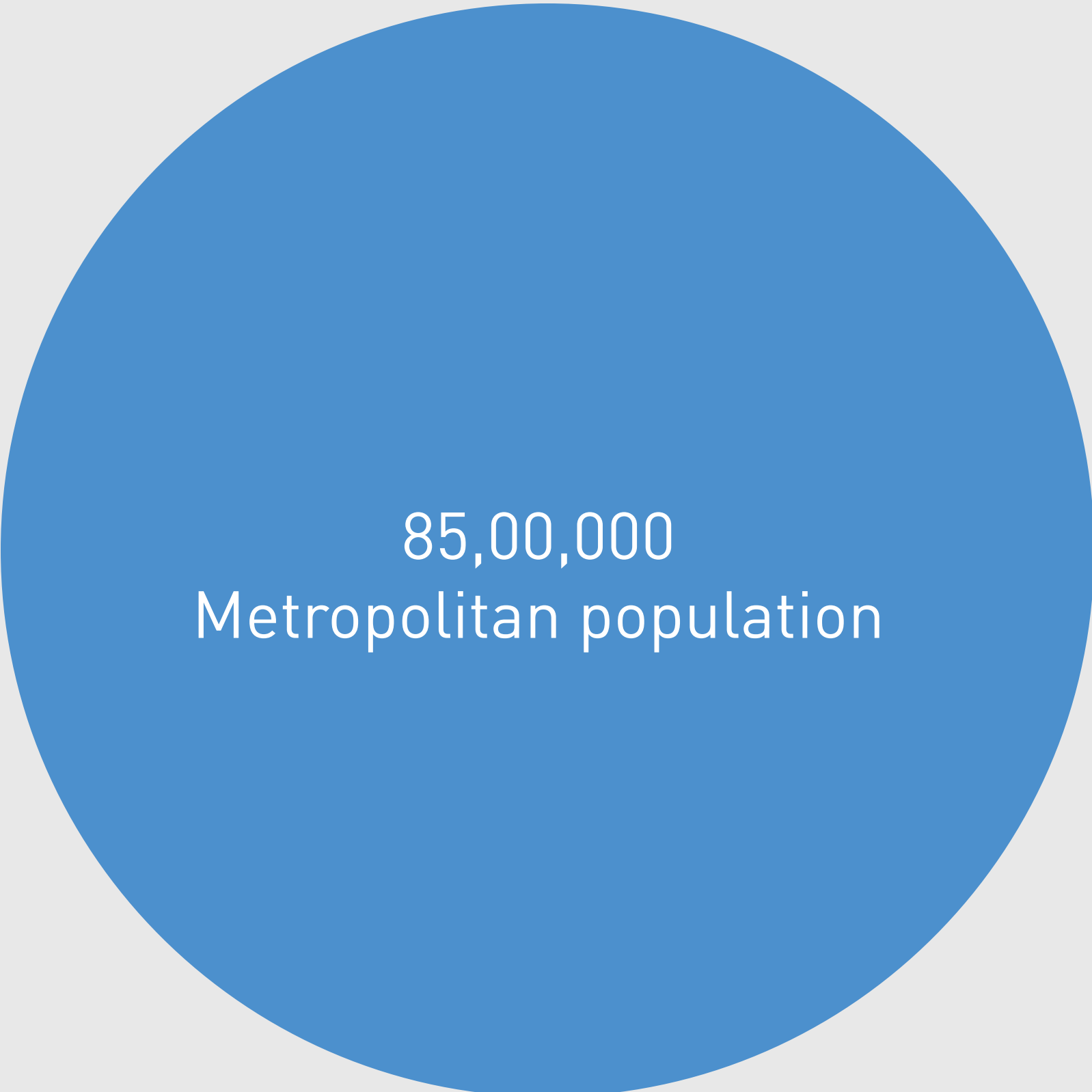
Govt. of
India

Govt. of
Karnataka

Bengaluru Metro Rail Corp. Ltd.
(BMRCL)

Namma Metro

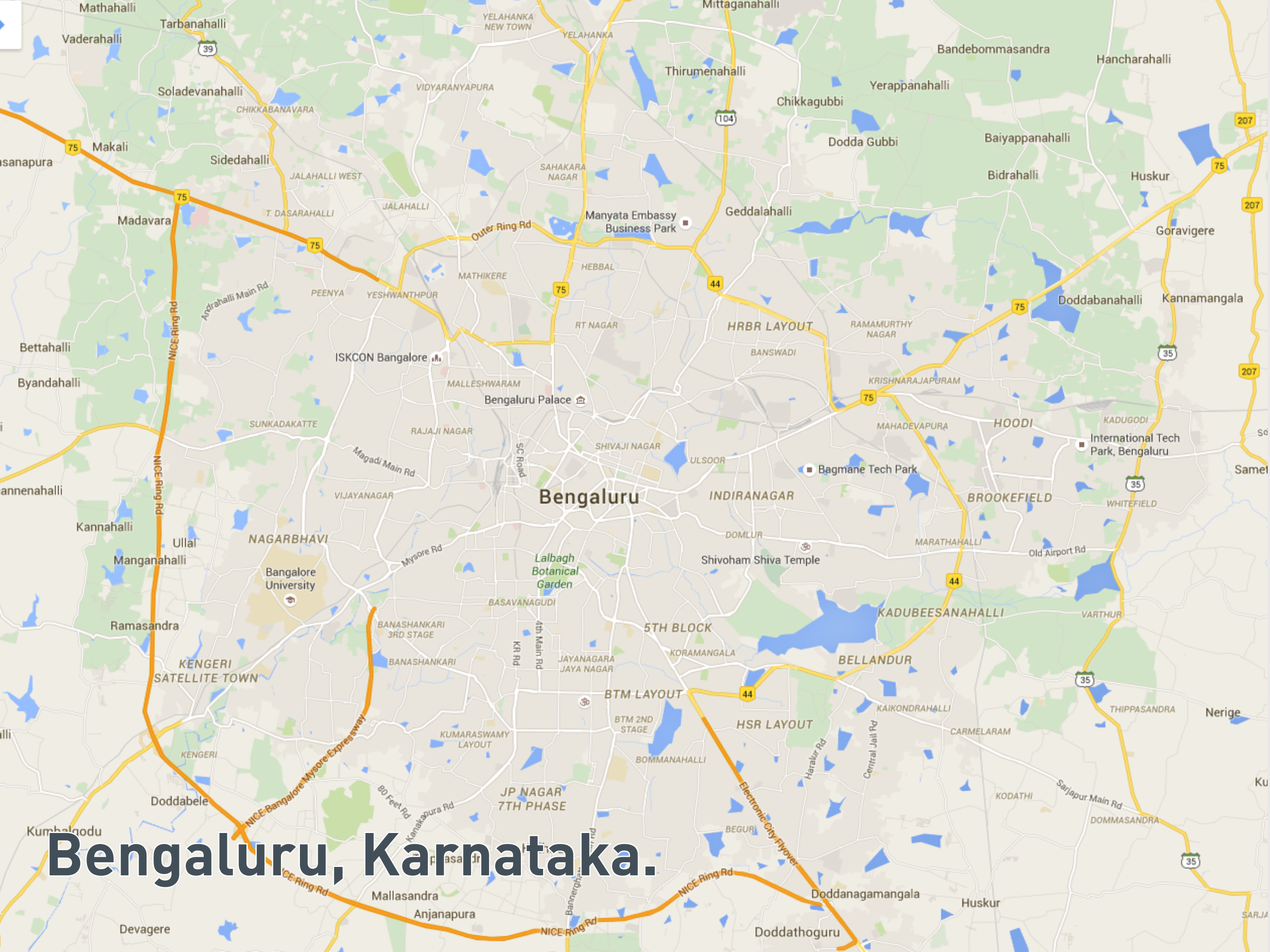
Namma Metro started its work
in 2007 and was open to public
on 20th Oct 2011.



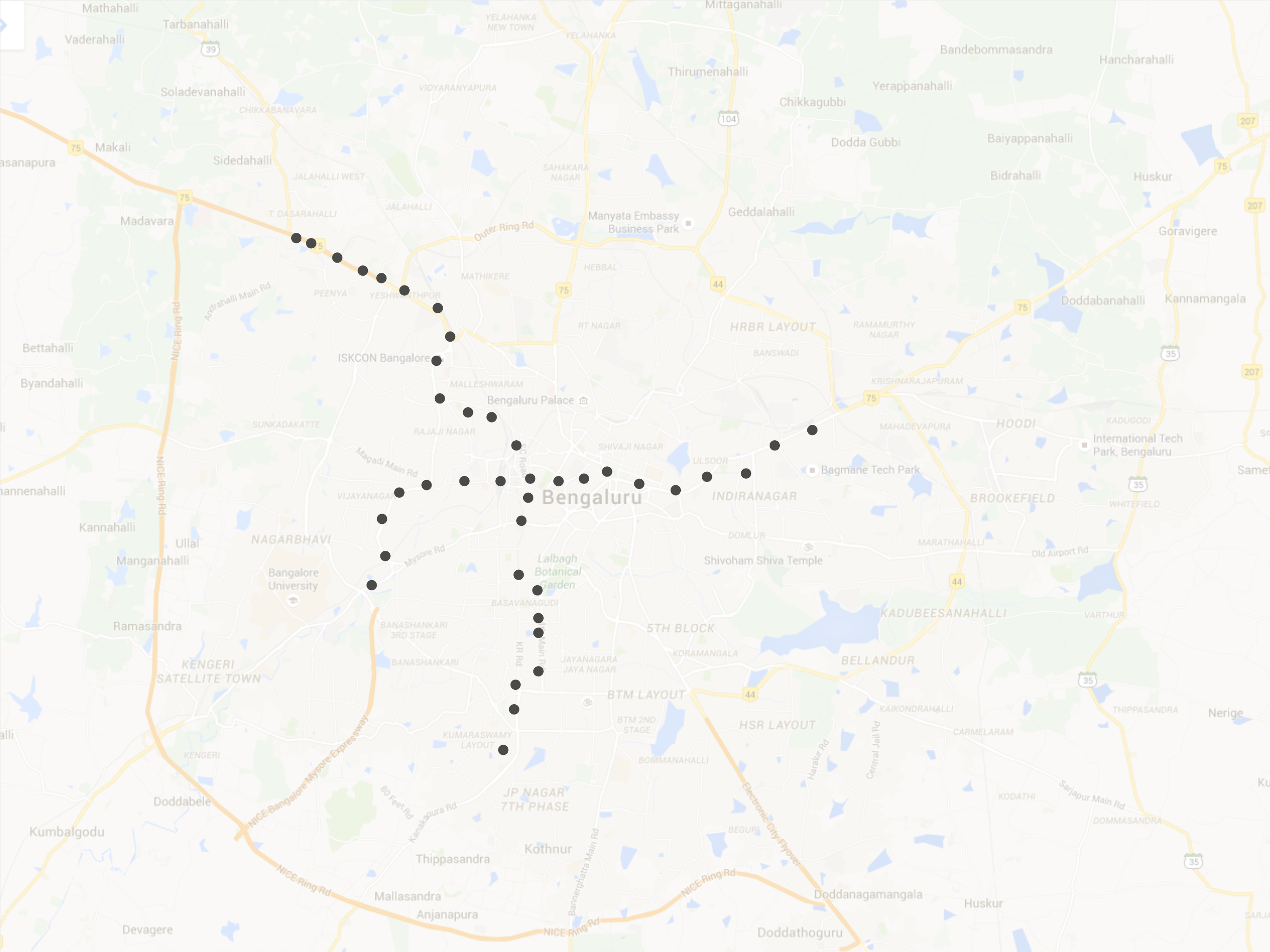
85,00,000
Metropolitan population

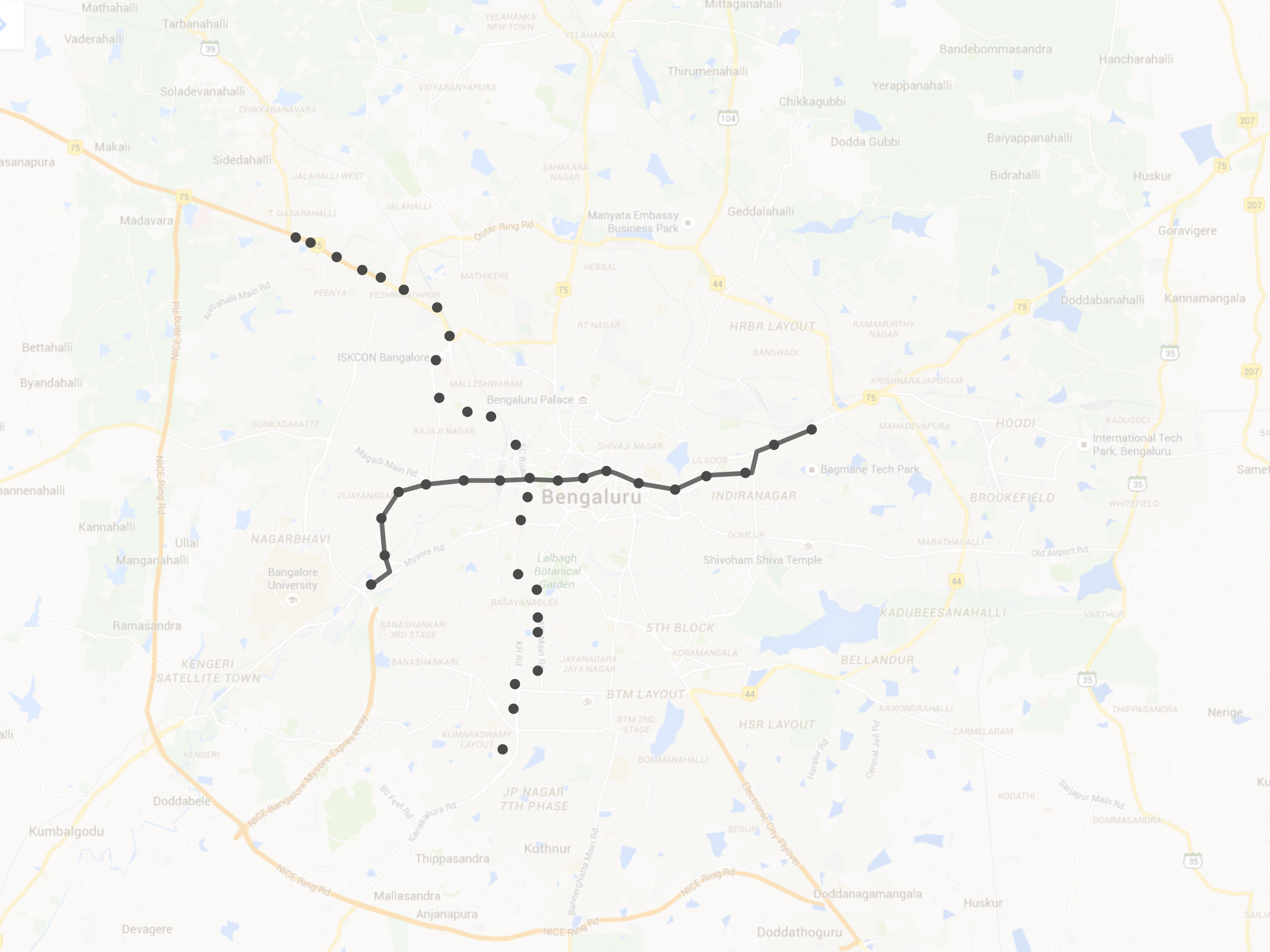


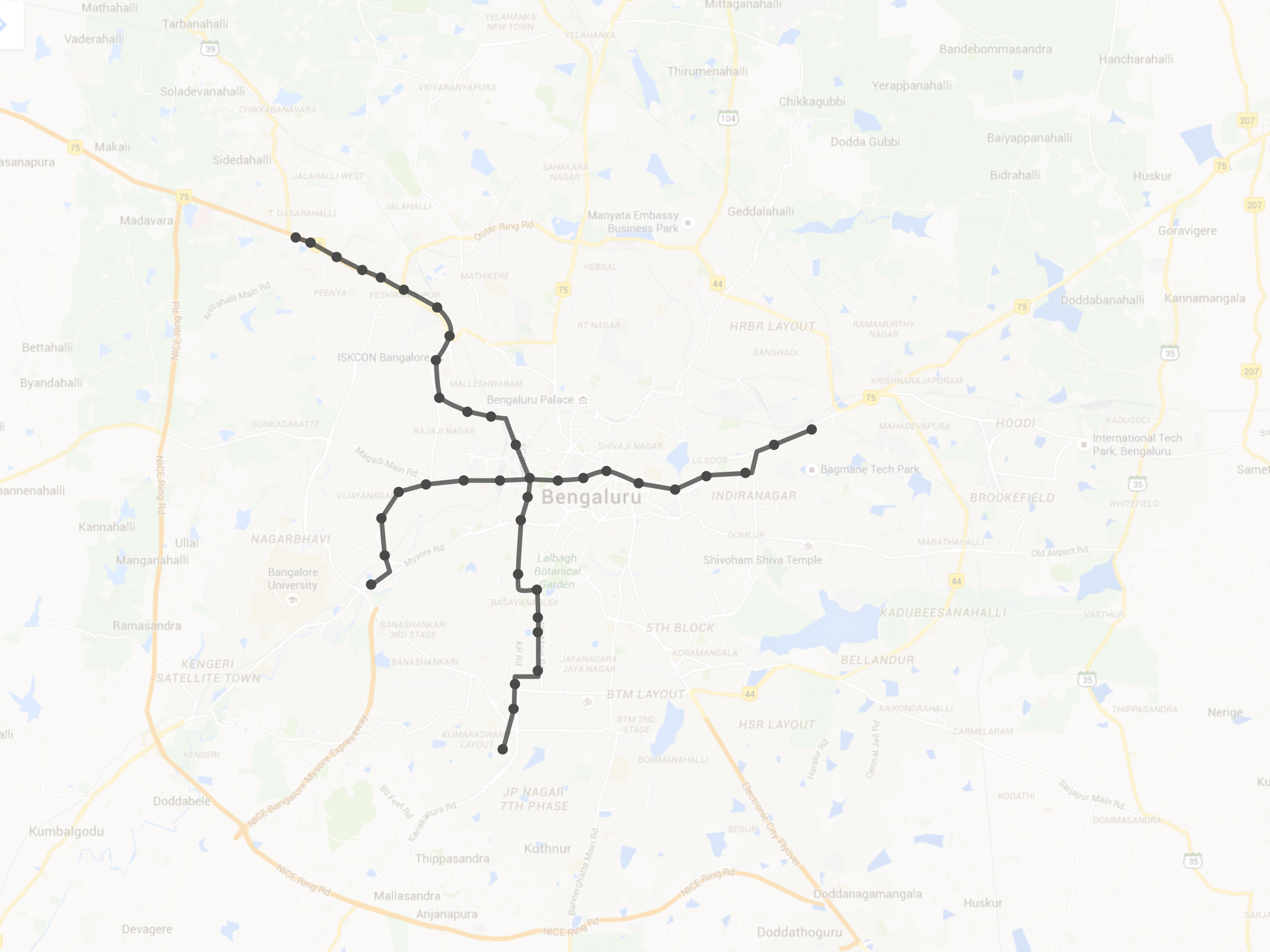
1,40,000
Daily Commuters

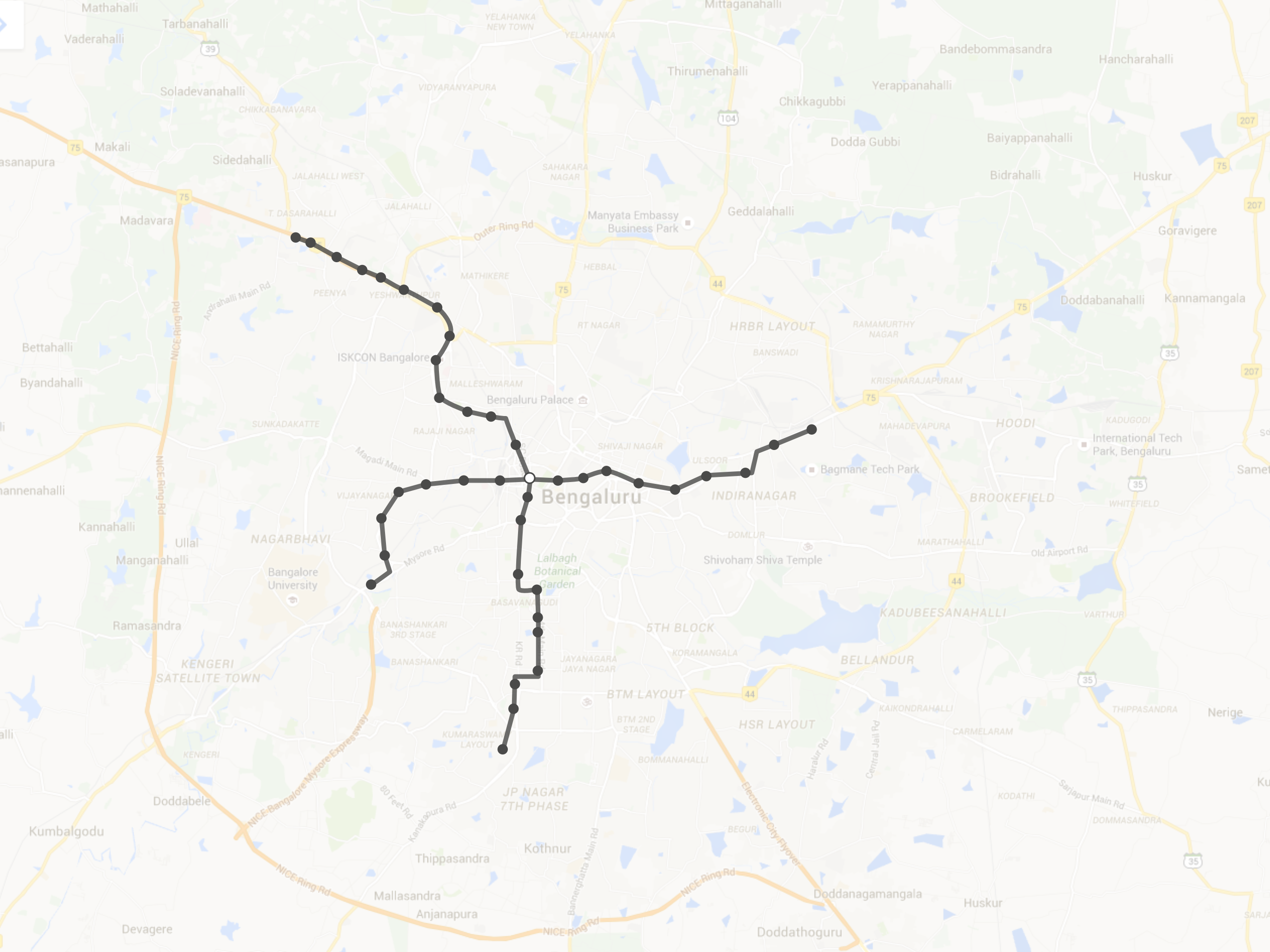


Bengaluru, Karnataka.

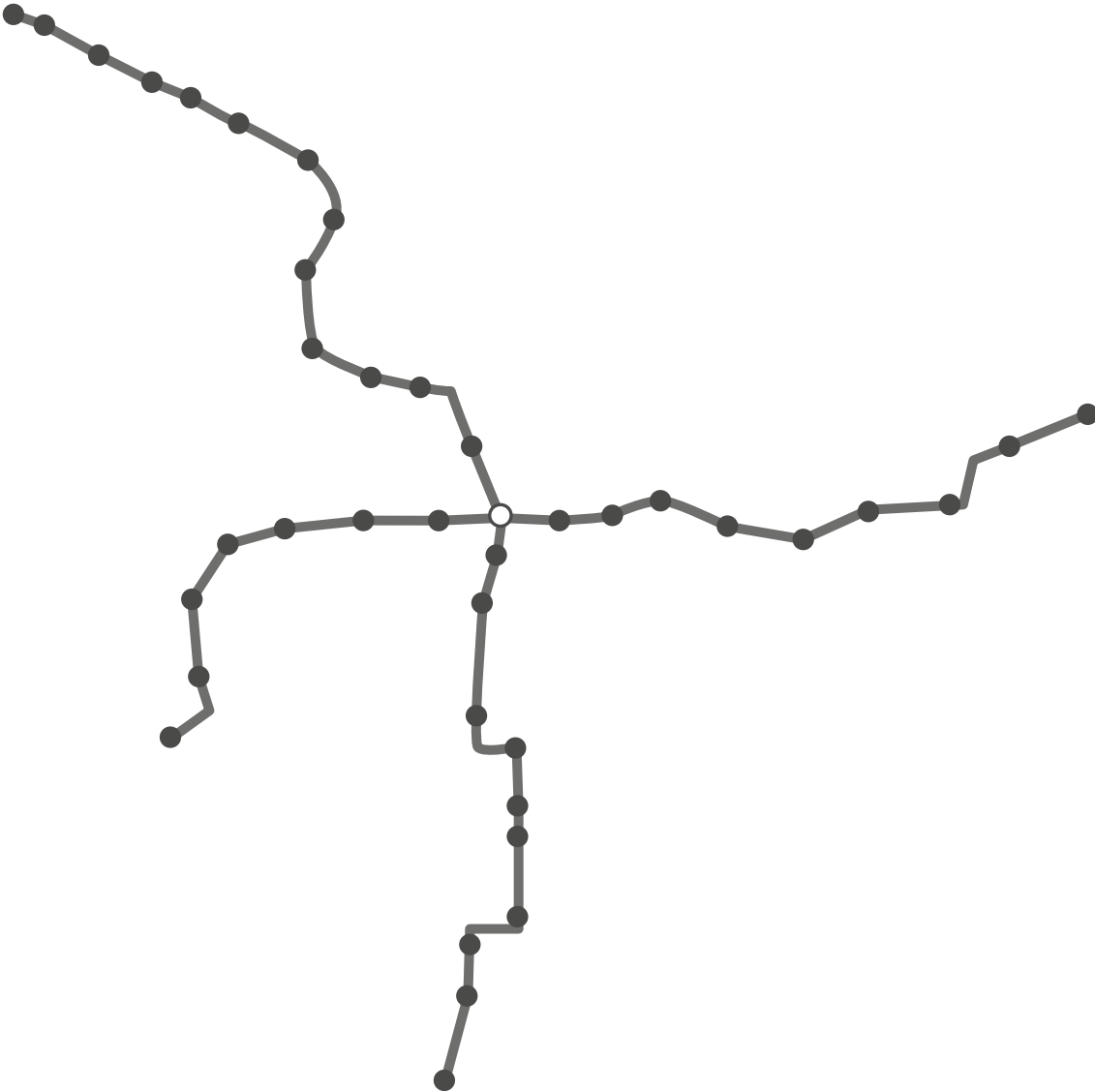


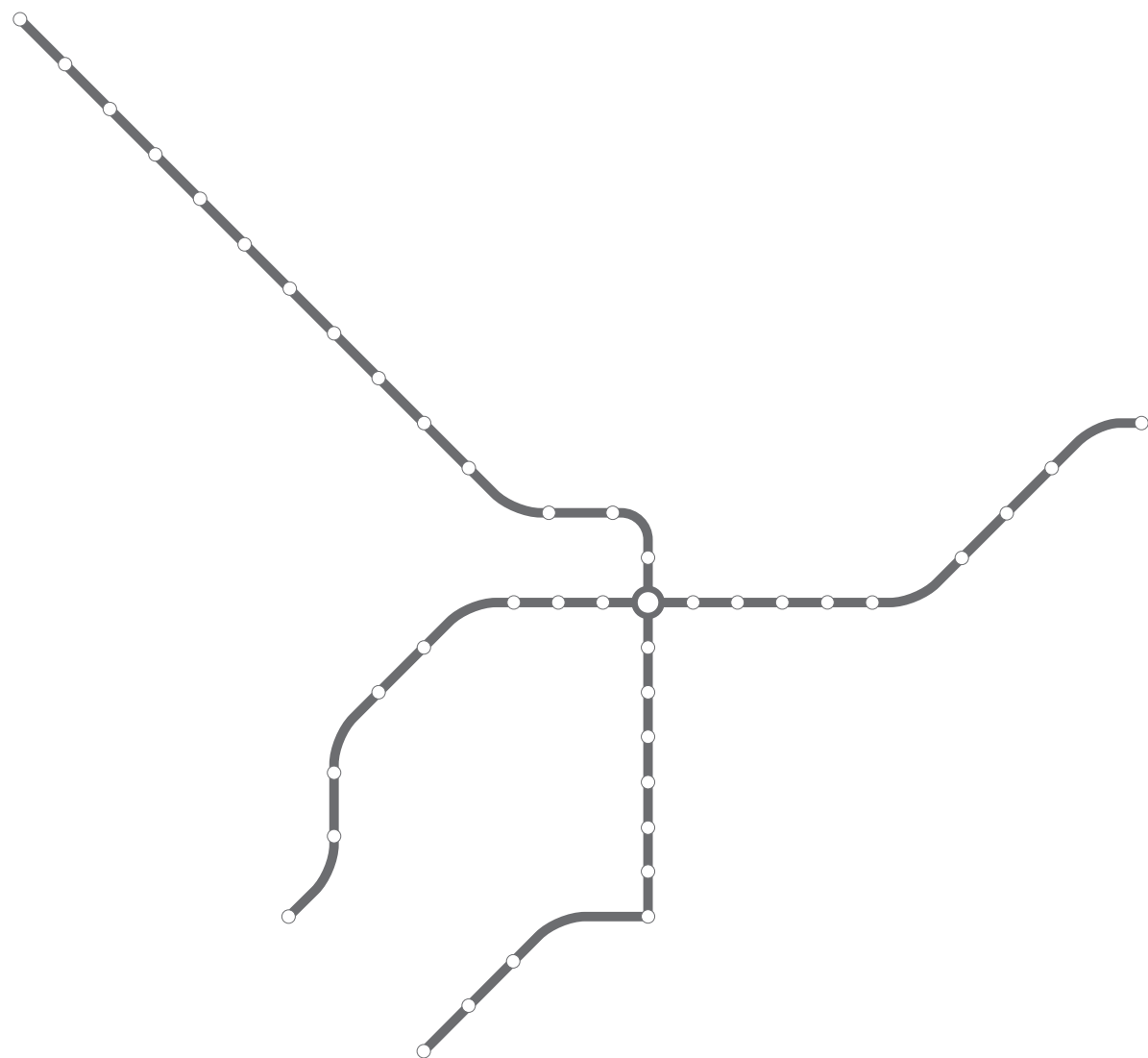


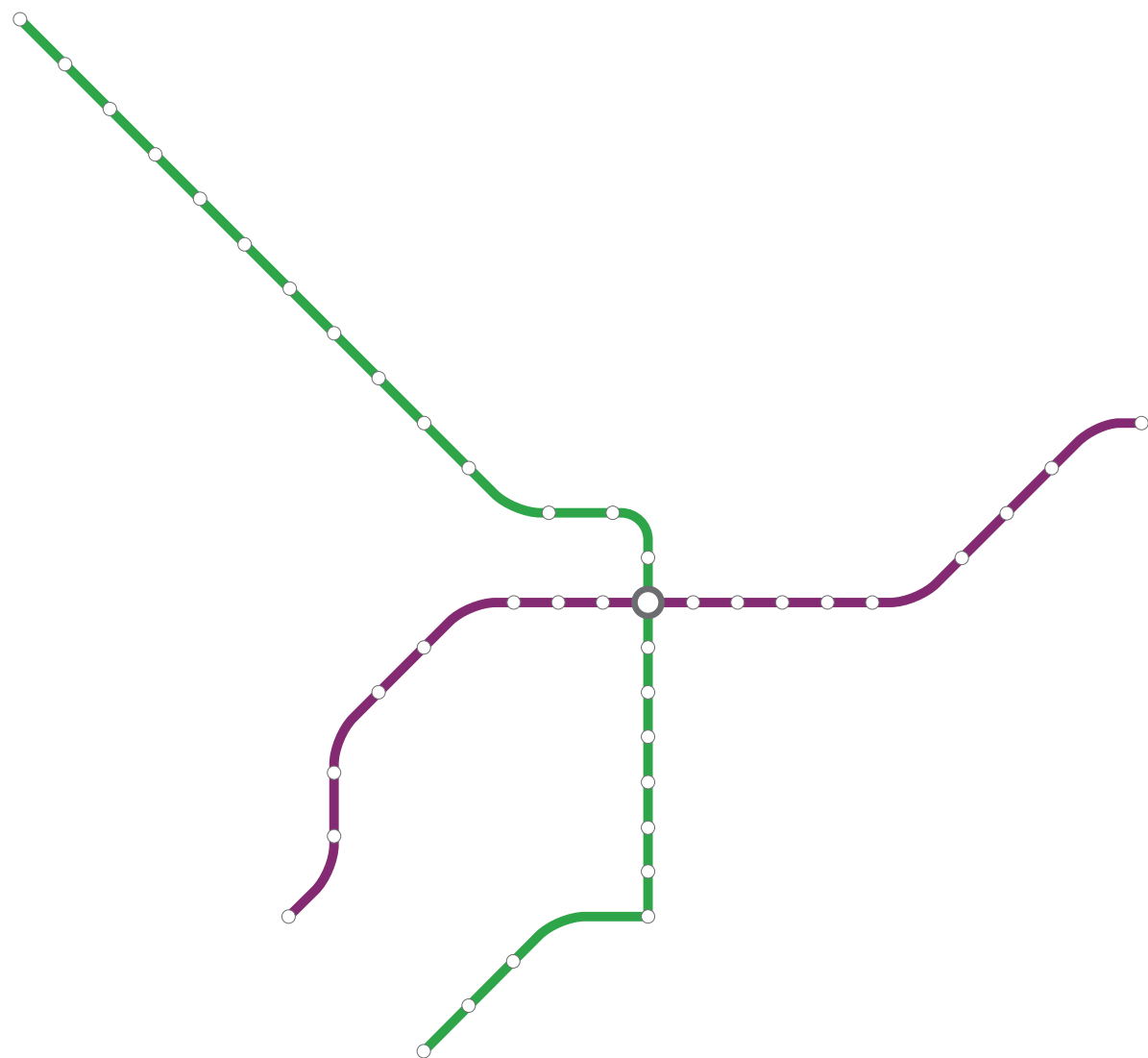


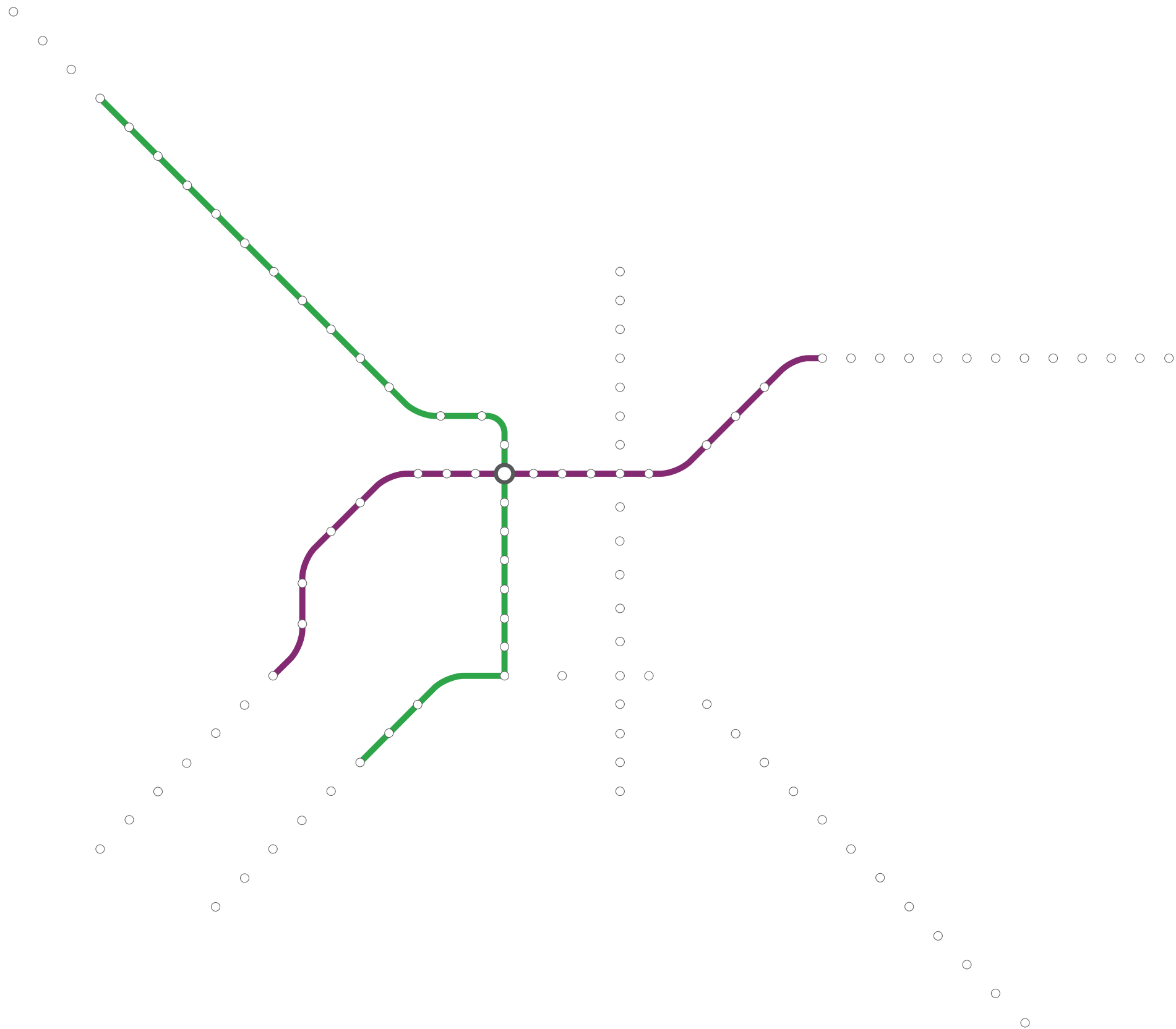


Phase 1

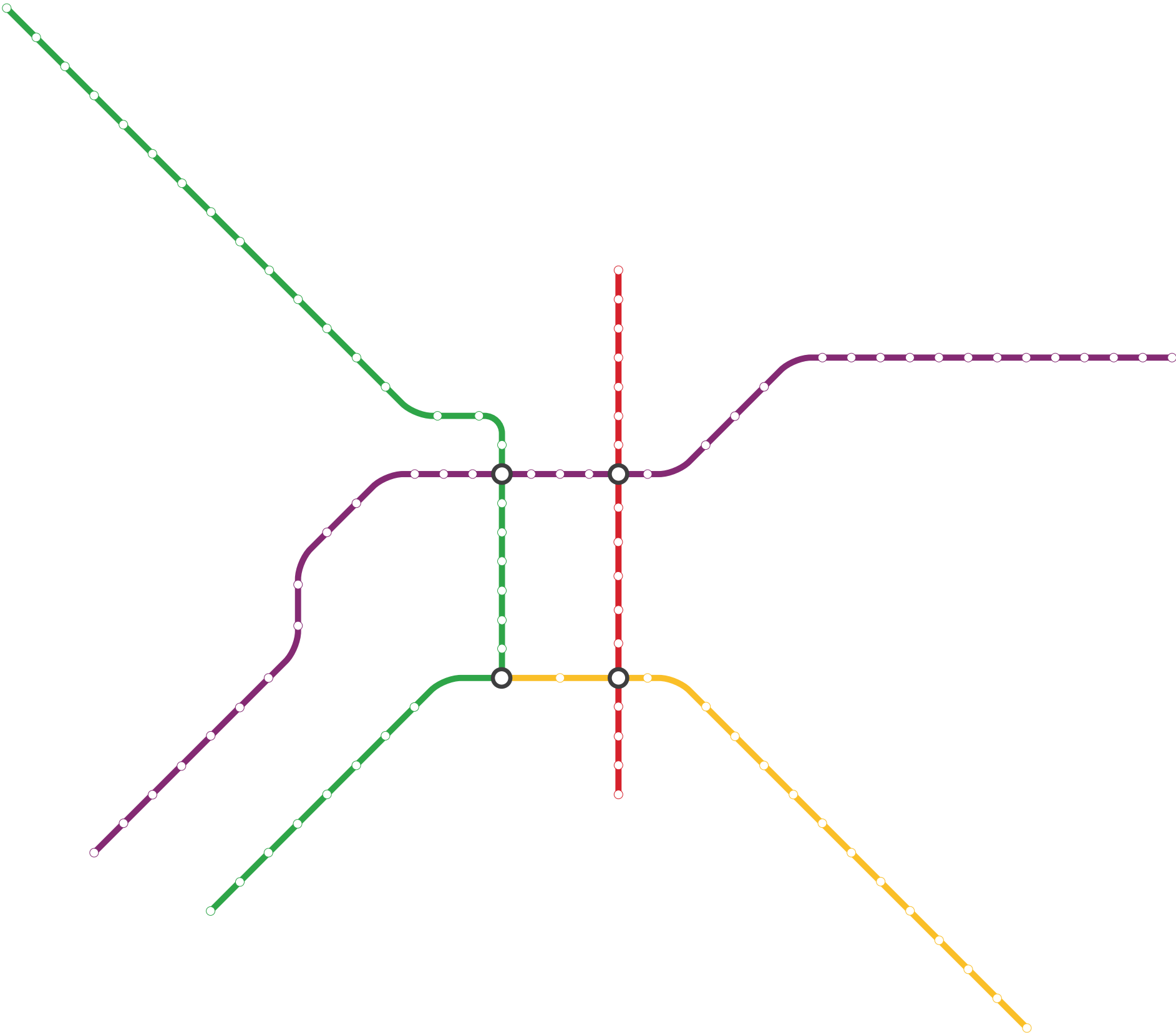








Phase 2









Designers cant choose any font which they like or one which aesthetically appeals.

What font to choose?

Large x-height



Typefaces with very large x-height relative to the total height of the font have shorter ascenders and descenders

Open Counters

Myriad Pro

a c e

Microsoft
Yi Baiti

a c e

a c e

Myriad Pro

a c e

● Open Counters



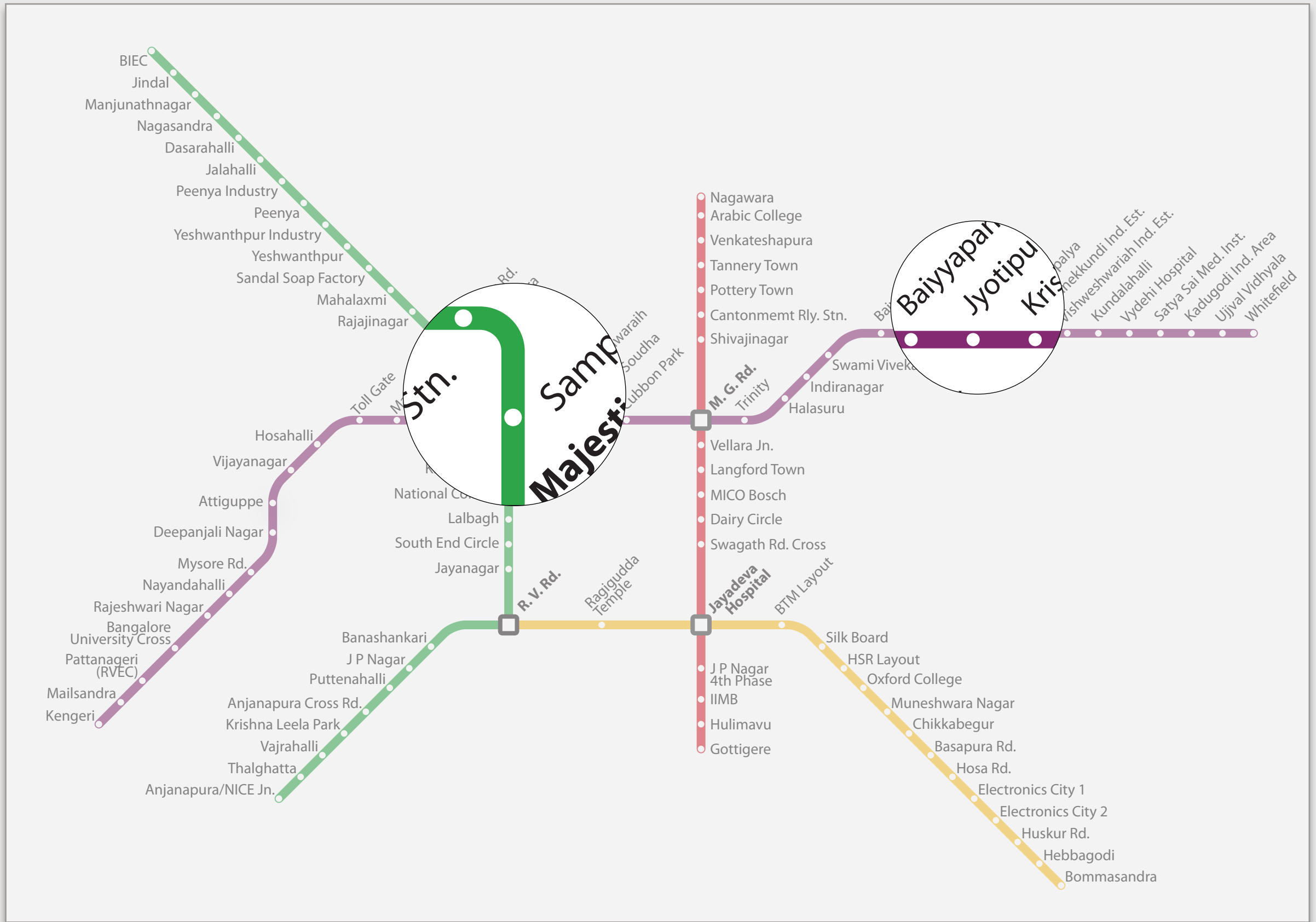
The print size of the map was
changed from A4 to A5.

A4



A5





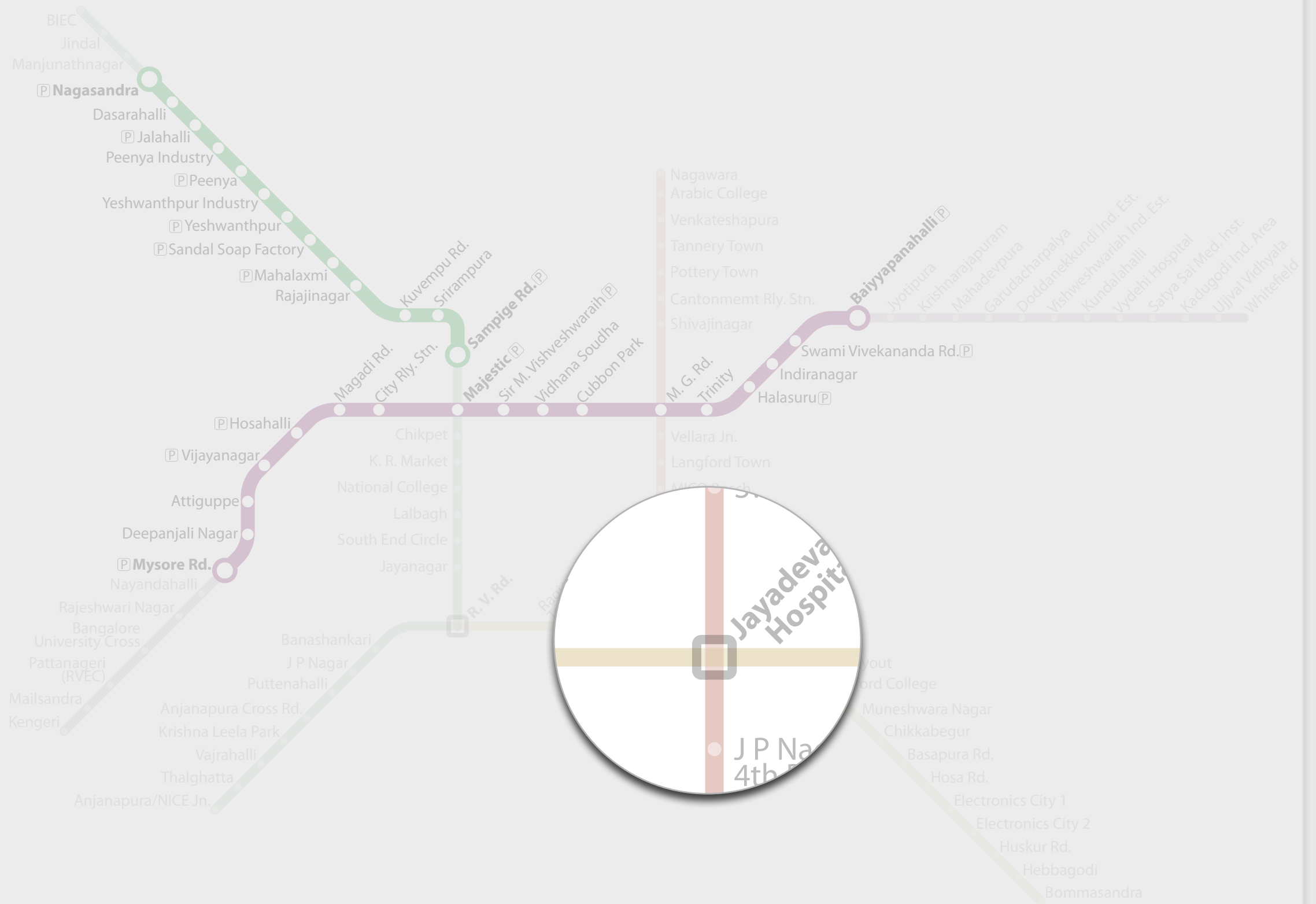
Low Proximity





Proximity leading to new relationship





Good Interchange Symbol?



London Tube Map



Madrid Metro Map



Libson Metro Map



Tokyo Metro Map

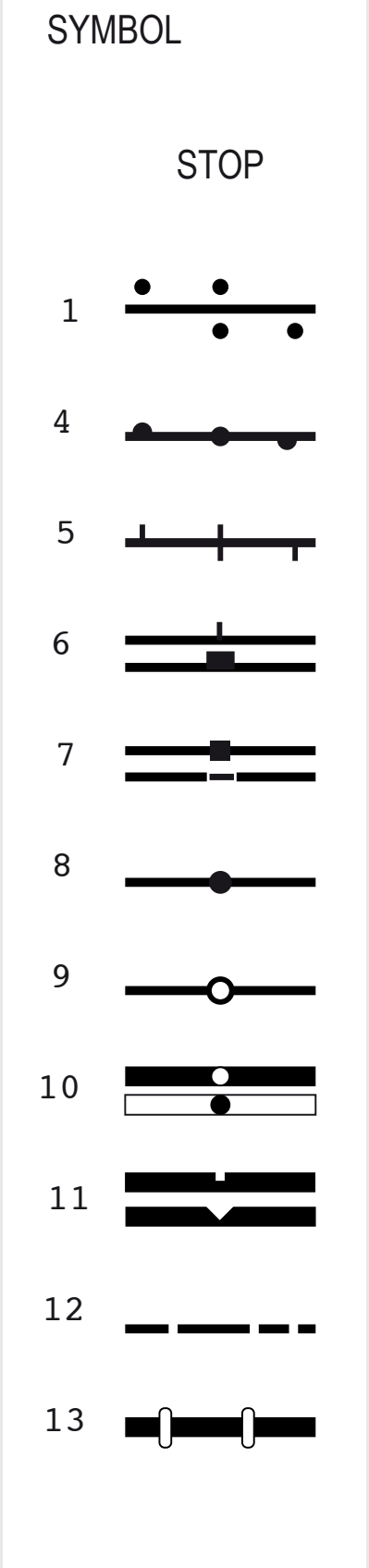
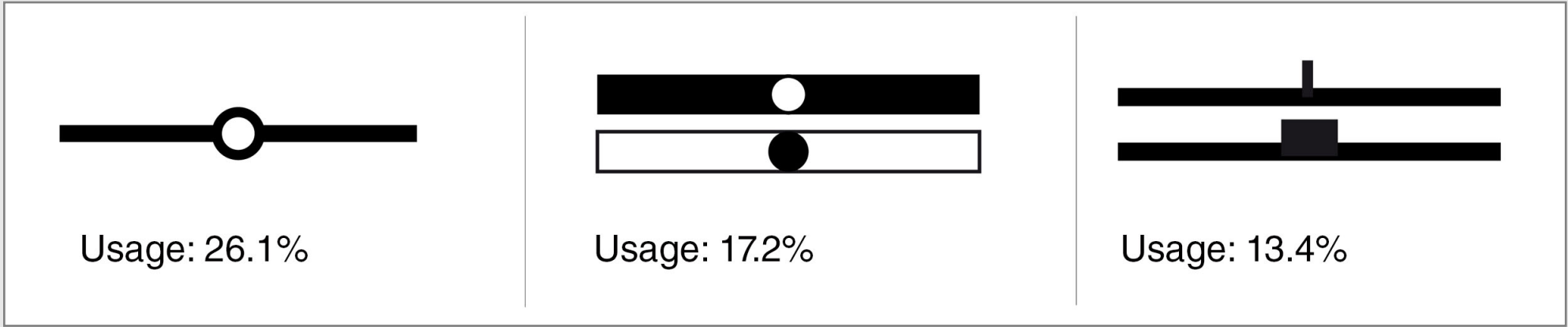
Usage of Interchange Symbols across the world

Source: The design of Public Transport Maps by José Allard

Interchange Stations				
Ring				
Rings Connected				
Rings Stressed				
Concenric Rings				
Dot				
Regular Polygon				
Irregular Polygon				
Pie				
Color Overprint				
Area				
Pictogram				
Blank Space				
String				

Usage of Station Symbols across the world

Source: The design of Public Transport Maps by José Allard



Do the designer should have
his/her habit of creating a
new visual language in design
of Transit Maps?

Either standardize all the graphic notations so that there is no confusion about the meaning of symbols, or study and analyze the characteristics of perception and how they apply to maps so that symbolization and design decisions can be based on “objective” rules.

Robinson in The Look of Maps(1952)

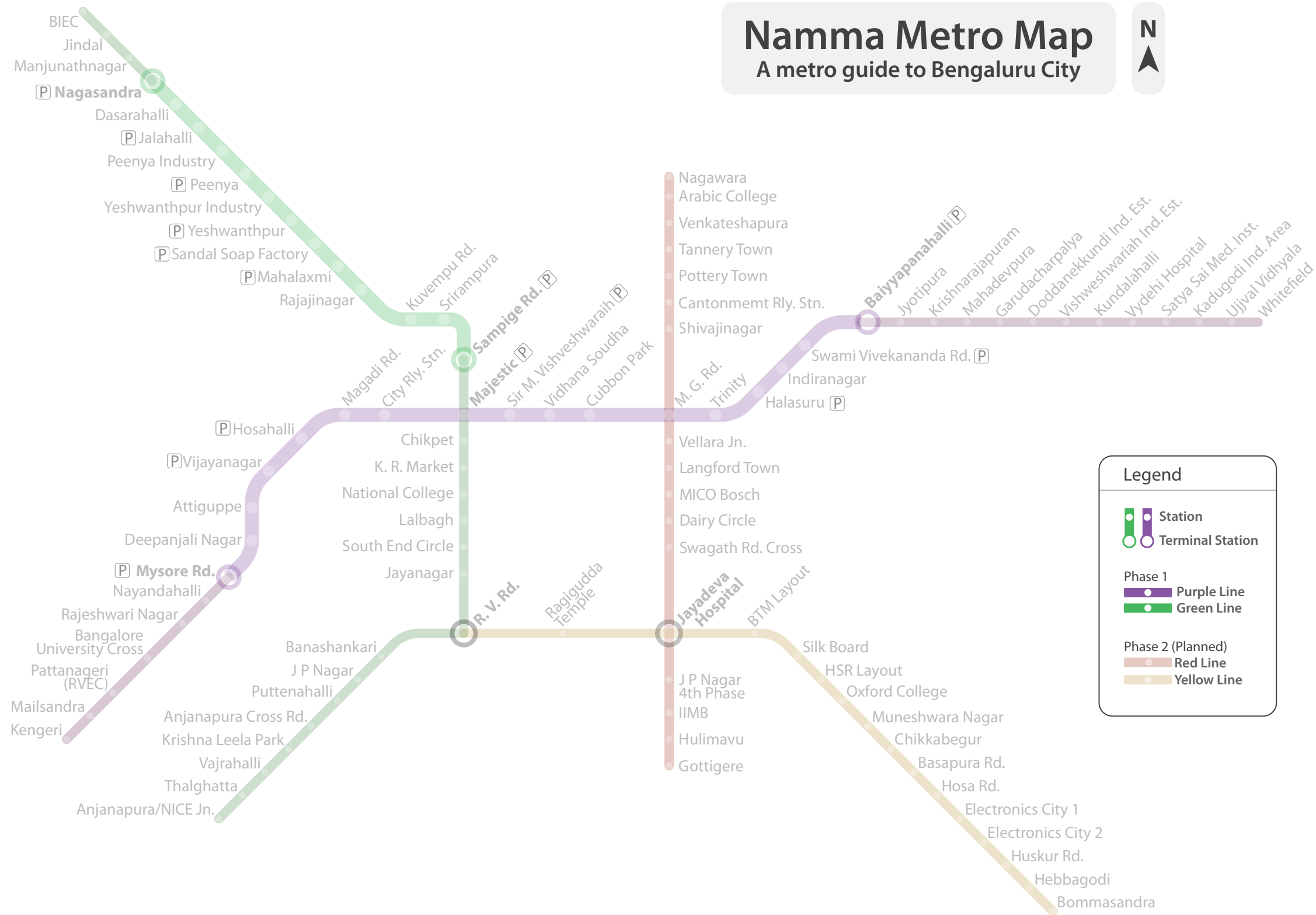


**But who will translate the
meaning of the symbols used
on map?**

LEGEND

Namma Metro Map

A metro guide to Bengaluru City

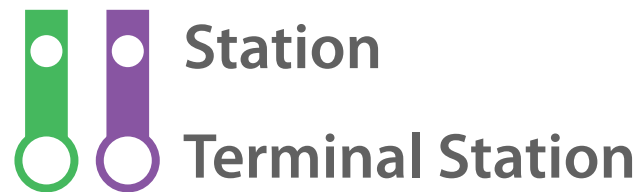


Namma Metro Map

A metro guide to Bengaluru City



Legend

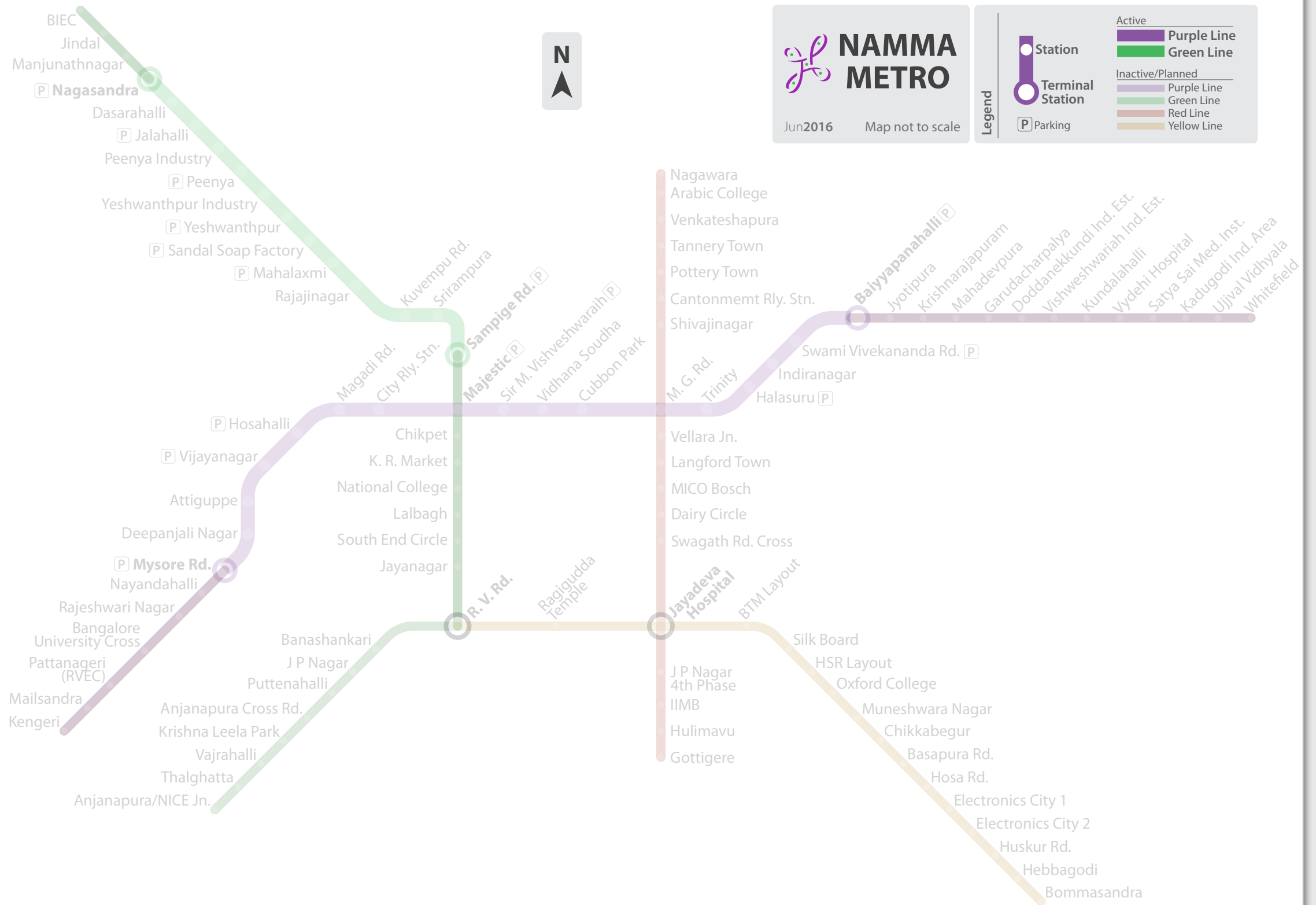


Phase 1



Phase 2 (Planned)







NAMMA METRO

Jun**2016**

Map not to scale

Legend



Station

Terminal
Station

P Parking

Active

Purple Line

Green Line

Inactive/Planned

Purple Line

Green Line

Red Line

Yellow Line

Nagawara

Arabic College

Venkateshapura

Tannery Town

Pottery Town

Cantonment Rly. Stn.

Shivajinagar

M. G. Rd.

Trinity

Indiranagar

Halasuru **P**

Vellara Jn.

Swami Vivekananda Rd. **P**

Baiyyapanahalli **P**

Jyotipura

Krishnarajapuram

Mahadevpura

Garudacharpalya

Doddanekkundi Ind. Est.

Vishweshwariah Ind. Est.

Kundalahalli

Vydehi Hospital

Satya Sai Med. Inst.

Kadugodi Ind. Area

Ujval Vidhyala

Whitefield

Is the design of map is over?

How can a passenger find his interest station on the map which is filled with tons of information?

Lets put ourselves in
passengers scenario

Search

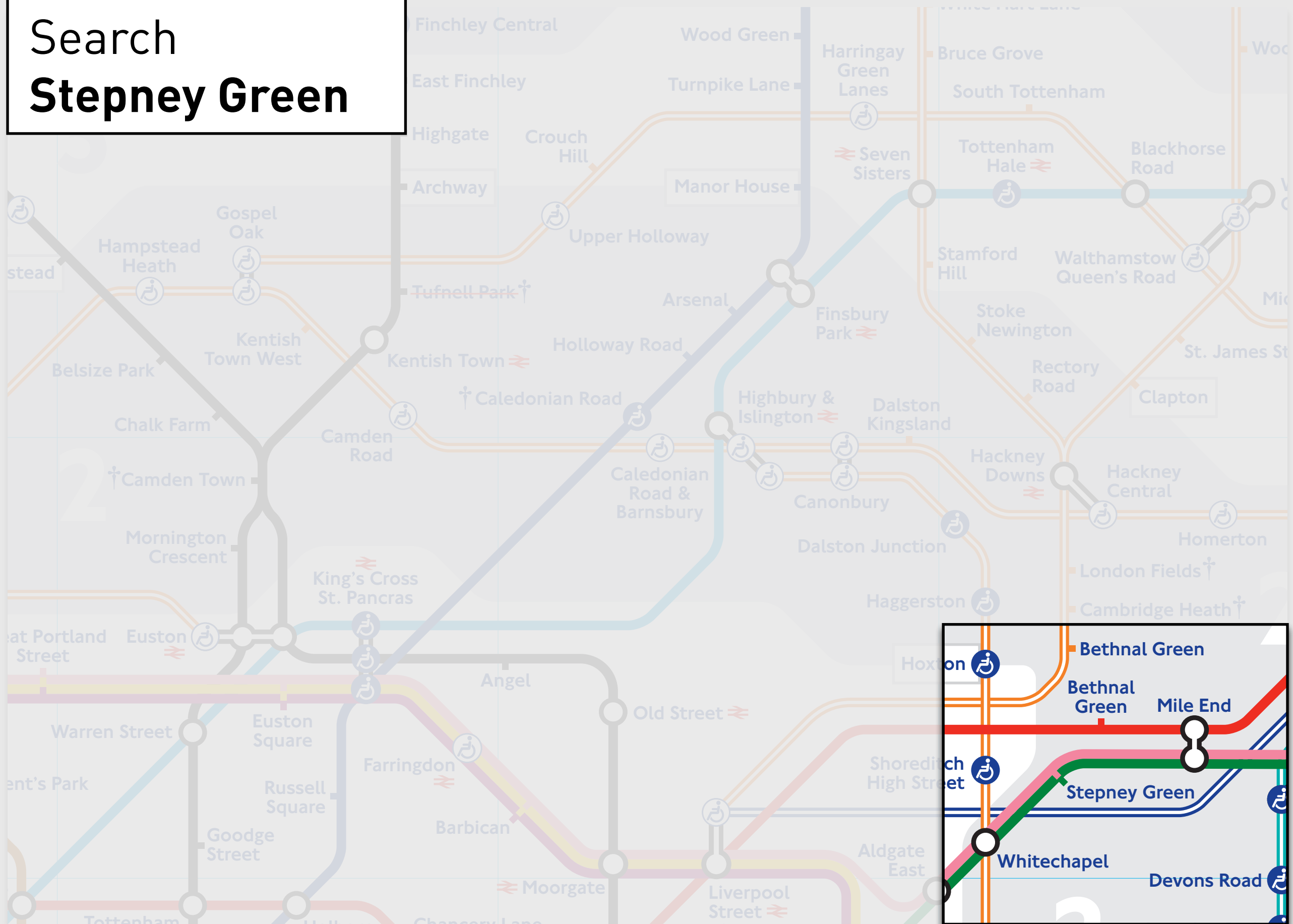
Stepney Green

Search Stepney Green



Did you scan the whole map?

Search Stepney Green



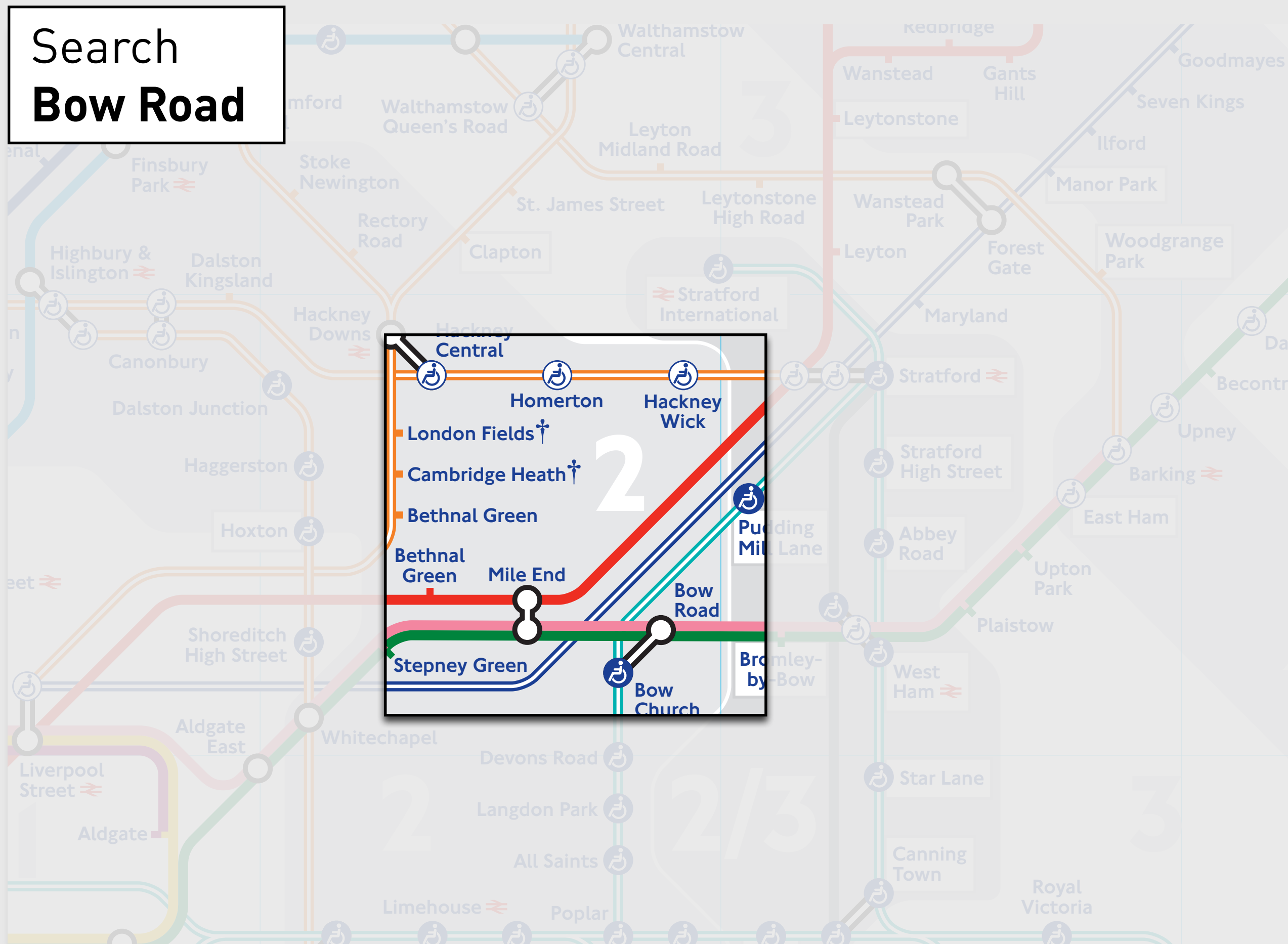
Lets try another example.

But this time with a clue.

Search

Bow Road

Search Bow Road

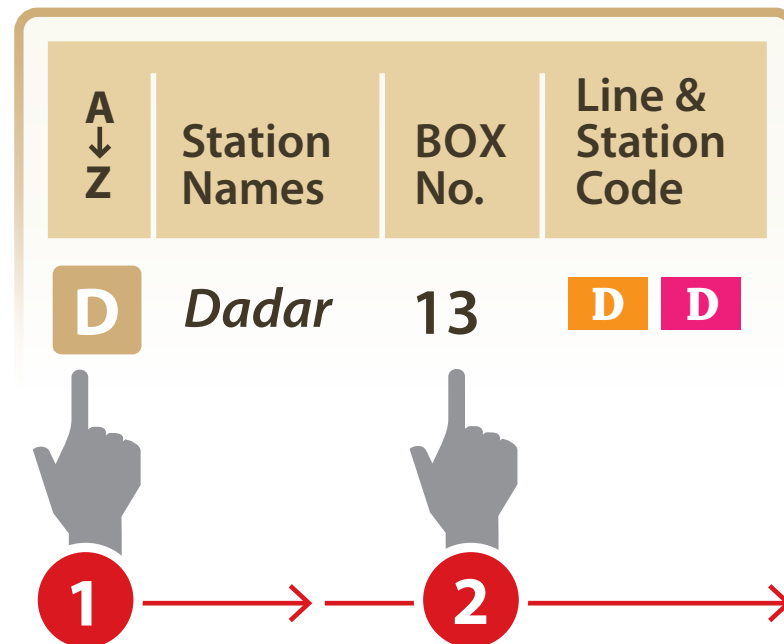


Easy to find when
scan area is reduced.

This can be achieved by
Index and Grid concept

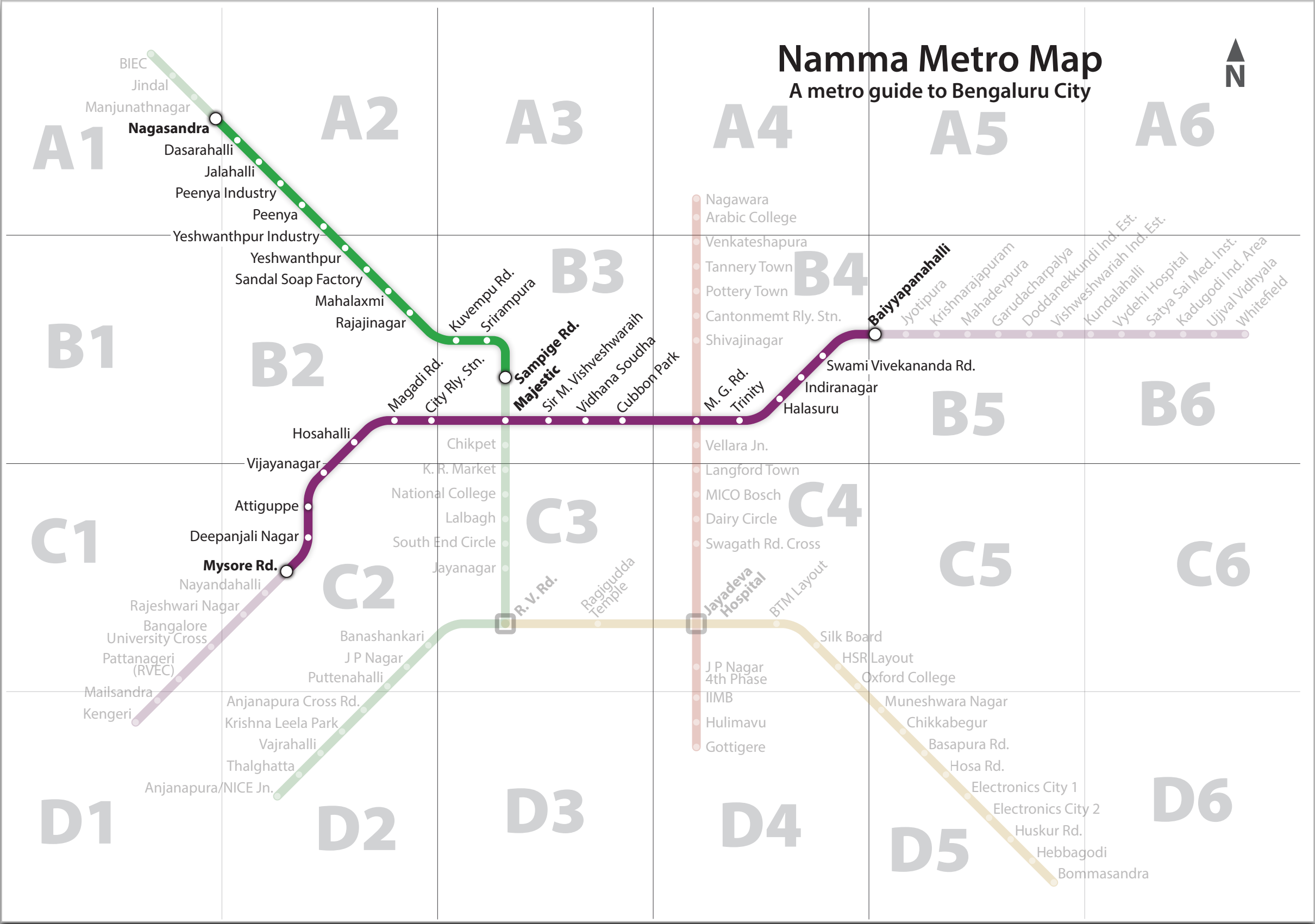
Three steps to find your station...

e.g. to find the station
Dadar in the map:

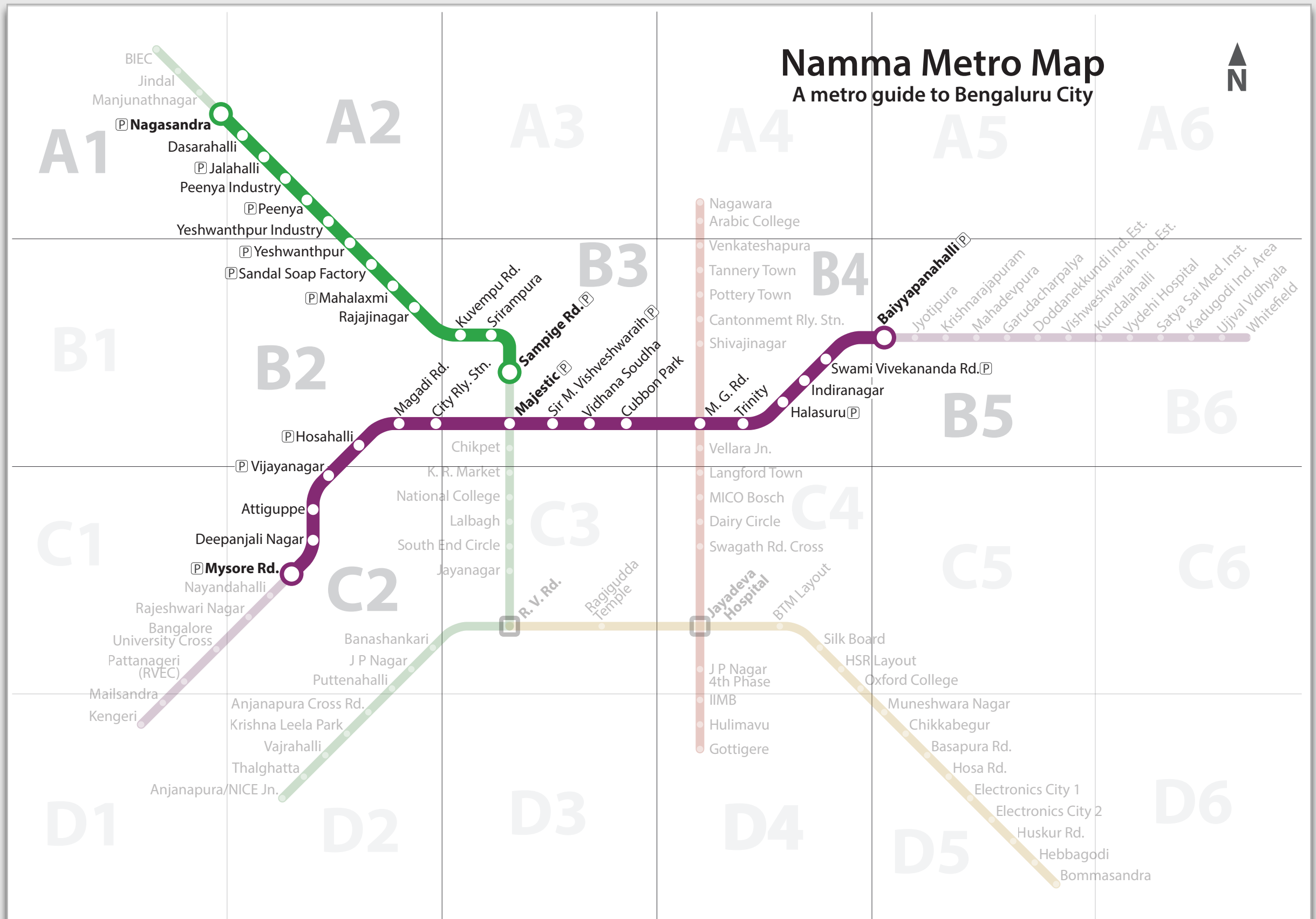


GRID

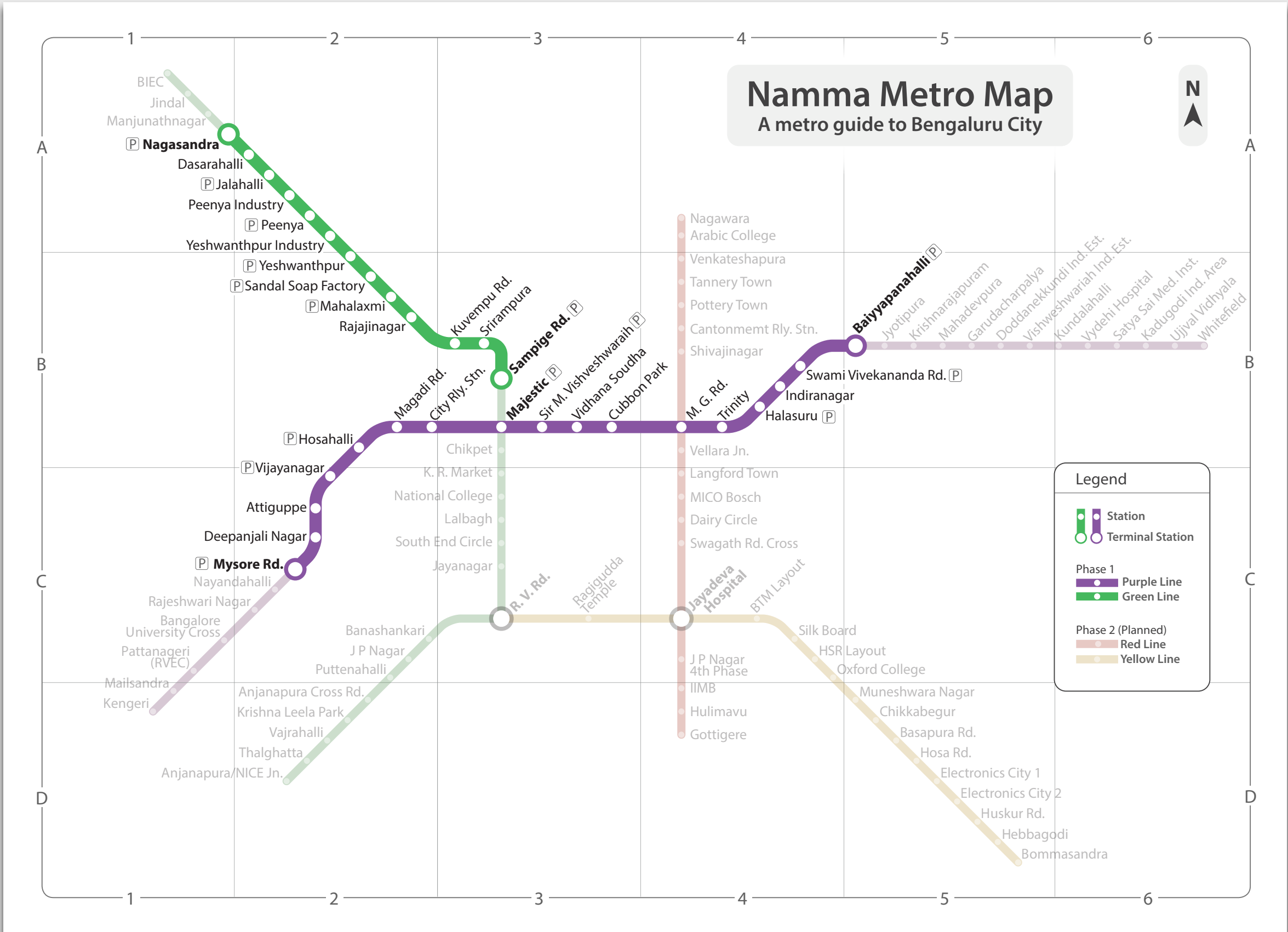




Grid names pop up



Reduced but still interferes | People need to be trained



Grids pushed out

INDEX

A		
Anjanapura Cross Rd.	D2	
Anjanapura/NICE Jn.	D2	
Arabic College	A4	
Attiguppe	C2	

B		
Baiyyapanahalli	B5	
Banashankari	C2	
BIEC	A1	
Bangaore University Cross	C1	
Basapura Rd.	D5	
Bommasandra	D5	
BTM Layout	C4	

C		
Cantonment Rly. Stn.	B4	
Chikkabegur	D5	
Chikpet	B3	
City Rly. Stn.	B2	
Cubbon Park	B3	

D		
Dairy Circle	C4	
Dasarahalli	A2	
Deepanjali Nagar	C2	
Doddanekkundi Ind. Est.	B5	

E		
Electronics City 1	D5	
Electronics City 2	D5	

G		
Garudacharpalya	B5	
Gottigere	D4	

H		
Halasuru	B4	
Hebbagodi	D5	
Hosa Rd.	D5	
Hosahalli	B2	
HSR Layout	C4	
Hulimavu	D4	
Huskur Rd.	D5	

J		
J P Nagar	C2	
J P Nagar 4th Phase	C4	
Jalahalli	A2	
Jayadeva Hospital	C4	
Jayanagar	C3	
Jindal	A1	
Jyotipura	B5	

K		
K. R. Market	C3	
K. R. Puram	B5	
Kadugodi Ind. Area	B6	
Kengeri	D1	
Krishna Leela Park	D2	
Kundalahalli	B6	
Kuvempu Road	B3	

L		
Lalbagh	C3	
Langford Town	C4	

M		
M. G. Rd.	B4	
Magadi Rd.	B2	
Mahadevpura	B5	
Mahalaxmi	B2	
Mailsandra	D1	
Majestic	B3	
Manjunathnagar	A1	
Mantri Square/Sampige Rd.	B3	
MICO Bosch	C4	
Muneshwara Nagar	D5	
Mysore Rd.	C2	

N		
Nagasandra	A1	
Nagawara	A4	
National College	C3	
Nayandahalli	C2	

O		
Oxford College	C4	

Peenya Industry	A2
Pottery Town	B4
Puttenahalli	C2

R		
R. V. Road	C3	
Ragigudda Temple	C3	
Rajajinagar	B2	
Rajeshwari Nagar	C2	

S		
Sandal Soap Factory	B2	
Satya Sai Med. Inst.	B6	
Shivajinagar	B4	
Silk Board	C4	
Sir M. Vishveshwariah	B3	
South End Circle	C3	
Srirampura	B3	
Swagath Rd. Cross	C4	
Swami Vivekananda Rd.	B4	

T		
Tannery Town	B4	
Thalghatta	D2	
Toll Gate	B4	
Trinity	B2	

U		
Ujjval Vidhyala	B6	

V		
Vajrahalli	D2	
Vellara Jn.	B4	
Venkateshapura	B4	
Vidhana Soudha	B3	
Vijayanagar	C2	
Vishweshwariah Ind. Est.	B5	
Vydehi Hospital	B6	

W		
Whitefield	B6	

Y		
Yeshwanthpur	B2	
Yeshwanthpur Ind.t	A2	

A		
Anjanapura Cross Rd.	D2	
Anjanapura/NICE Jn.	D2	
Arabic College	A4	
Attiguppe	C2	
B		
Baiyyapanahalli	B5	
Banashankari	C2	
BIEC	A1	
Bangaore University Cross	C1	
Basapura Rd.	D5	
Bommasandra	D5	
BTM	C4	
Chikkabeggur		
Chikpet	B4	
City Rly. Stn.	D5	
Cubbon Park	B3	
Dairy Circle	B2	
Dairy Circle	B3	
D		
Dairy Circle	C4	
Dasarahalli	A2	
Deepanjali Nagar	C2	
Doddanekkundi Ind. Est.	B5	
E		
Electronics City 1	D5	
Electronics City 2	D5	
G		
Garudacharpalya	B5	
Gottigere	D4	
H		
Halasuru	B4	
Hebbagodi	D5	
Hosa Rd.	D5	
Hosahalli	B2	
HSR Layout	C4	
Hulimavu	D4	
Huskur Rd.	D5	

J		
J P Nagar	C2	
J P Nagar 4th Phase	C4	
Jalahalli	A2	
Jayadeva Hospital	C4	
Jayanagar	C3	
Jindal	A1	
Jyotipura	B5	
K		
K. R. Market	C3	
K. R. Puram	B5	
Kadugodi Ind. Area	B6	
Kengeri	D1	
Krishna Leela Park	D2	
Kundalahalli	B6	
Kuvempu Road	B3	
L		
Lalbagh	C3	
Langford Town	C4	
M		
M. G. Rd.	B4	
Magadi Rd.	B2	
Mahadevpura	B5	
Mahalaxmi	B2	
Mailsandra	D1	
Majestic	B3	
Manjunath Nagar	A1	
Manjunath Nagar	B3	
Muneshwara	C4	
Mysore Rd.	D5	
N		
Nagasandra	C2	
Nagawara	A1	
National College	A4	
Nayandahalli	C3	
Nayandahalli	C2	
O		
Oxford College	C4	

Peenya Industry	A2	
Pottery Town	B4	
Puttenahalli	C2	
R		
R. V. Road	C3	
Ragigudda Temple	C3	
Rajajinagar	B2	
Rajeshwari Nagar	C2	
S		
Sandal Soap Factory	B2	
Satya Sai Med. Inst.	B6	
Shivajinagar	B4	
Silk Board	C4	
Sir M. Vishveshwaraiah	B3	
South End Circle	C3	
Srirampura	B3	
Swagath Rd. Cross	C4	
Swami Vivekananda Rd.	B4	
T		
Tannery Town	B4	
Thalghatta	D2	
Toll Gate	B4	
Trinity	B2	
U		
Ujjval Vidhyala	B6	
V		
Vajrahalli	D2	
Vellara Jn.	B4	
Venkateshapura	B4	
Vidhana Soudha	B3	
Vijayanagar	C2	
Vishweshwariah Ind. Est.	B5	
Vydehi Hospital	B6	
W		
Whitefield	B6	
Y		
Yeshwanthpur	B2	
Yeshwanthpur Ind.t	A2	

A

Anjanapura Cross Rd.	D2
Anjanapura/NICE Jn.	D2
Arabic College	A4
Attiguppe	C2

B

Baiyyapanahalli	B5
Banashankari	C2
BIEC	A1
Bangaore University Cross	C1
Basapura Rd.	D5
Bommasandra	D5
BTM Layout	C4

C

Cantonment Rly. Stn.	B4
Chikkabegur	D5
Chikpet	B3
City Rly. Stn.	B2
Cubbon Park	B3

D

Dairy Circle	C4
Dasarahalli	A2
Deepanjali Nagar	C2
Doddanekkundi Ind. Est.	B5

E

Electronics City 1	D5
Electronics City 2	D5

G

Garudacharpalya	B5
Gottigere	D4

A	
Anjanapura Cross Rd.	D2
Anjanapura/NICE Jn.	D2
Arabic College	A4
Attiguppe	C2

B	
Baiyyapanahalli	B5
Banashankari	C2
BIEC	A1
Bangaore University Cross	C1
Basapura Rd.	D5
Bommasandra	D5
BTM Layout	C4

C	
Cantonment Rly. Stn.	B4
Chikkabegur	D5
Chikpet	B3
City Rly. Stn.	B2
Cubbon Park	B3

D	
Dairy Circle	C4
Dasarahalli	A2
Deepanjali Nagar	C2
Doddanekkundi Ind. Est.	B5

E	
Electronics City 1	D5
Electronics City 2	D5

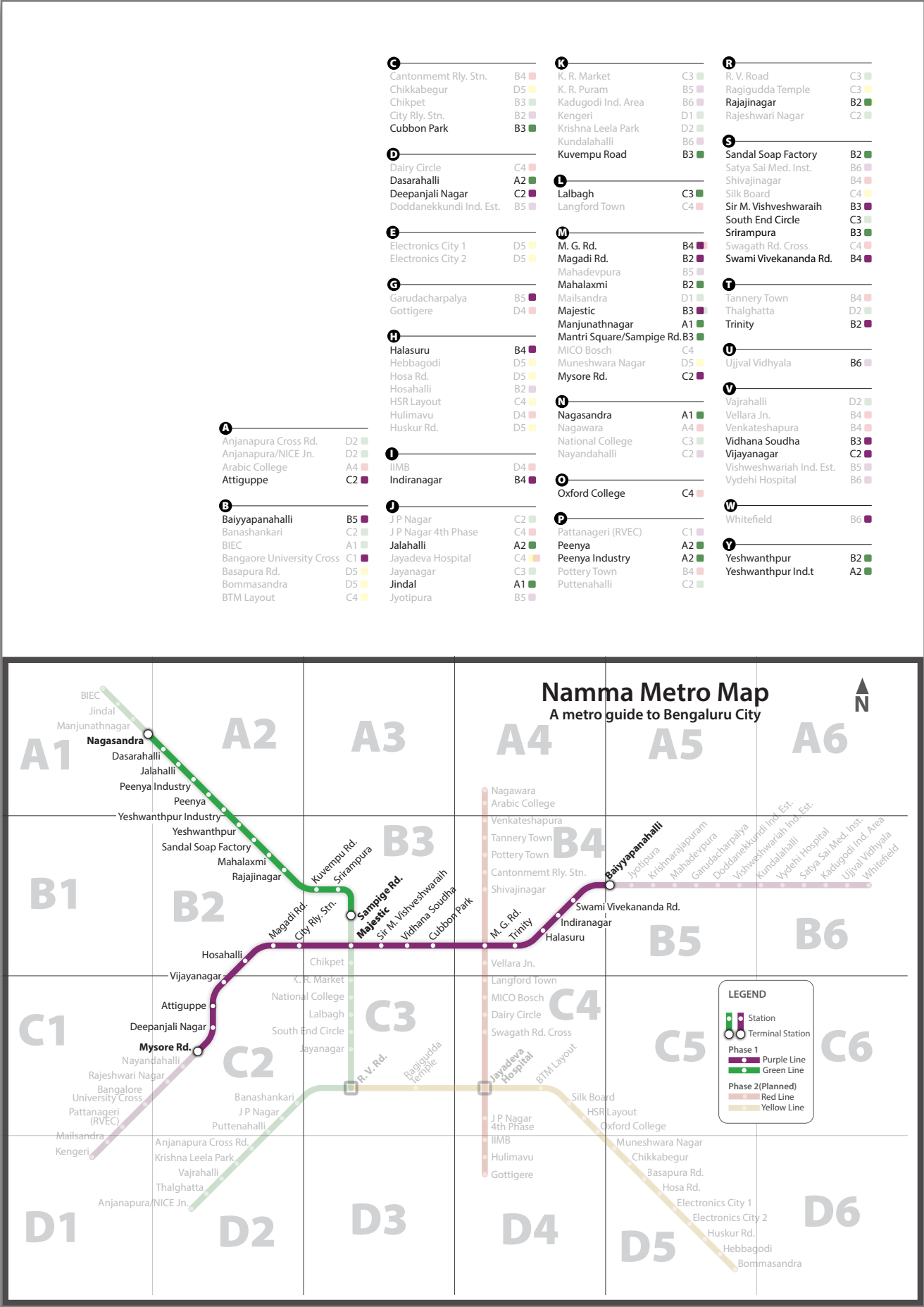
G	
Garudacharpalya	B5
Gattigere	D4

C			K			R		
Cantonment Rly. Stn.	B4		K. R. Market	C3		R. V. Road	C3	
Chikkabegur	D5		K. R. Puram	B5		Ragigudda Temple	C3	
Chikpet	B3		Kadugodi Ind. Area	B6		Rajajinagar	B2	
City Rly. Stn.	B2		Kengeri	D1		Rajeshwari Nagar	C2	
Cubbon Park	B3		Krishna Leela Park	D2				
D			Kundalahalli	B6		S		
Dairy Circle	C4		Kuvempu Road	B3		Sandal Soap Factory	B2	
Dasarahalli	A2		L			Satya Sai Med. Inst.	B6	
Deepanjali Nagar	C2		Lalbagh	C3		Shivajinagar	B4	
Doddanekkundi Ind. Est.	B5		Langford Town	C4		Silk Board	C4	
E			M			Sir M. Vishveshwariah	B3	
Electronics City 1	D5		M. G. Rd.	B4		South End Circle	C3	
Electronics City 2	D5		Magadi Rd.	B2		Srirampura	B3	
G			Mahadevpura	B5		Swagath Rd. Cross	C4	
Garudacharpalya	B5		Mahalaxmi	B2		Swami Vivekananda Rd.	B4	
Gottigere	D4		Mailsandra	D1		T		
H			Majestic	B3		Tannery Town	B4	
Halasuru	B4		Manjunathnagar	A1		Thalghatta	D2	
Hebbagodi	D5		Mantri Square/Sampige Rd.	B3		Trinity	B2	
Hosa Rd.	D5		MICO Bosch	C4		U		
Hosahalli	B2		Muneshwara Nagar	D5		Ujjval Vidhyala	B6	
HSR Layout	C4		Mysore Rd.	C2		V		
Hulimavu	D4		N			Vajrahalli	D2	
Huskur Rd.	D5		Nagasandra	A1		Vellara Jn.	B4	
I			Nagawara	A4		Venkateshapura	B4	
IIMB	D4		National College	C3		Vidhana Soudha	B3	
Indiranagar	B4		Nayandahalli	C2		Vijayanagar	C2	
J			O			Vishweshwariah Ind. Est.	B5	
J P Nagar	C2		Oxford College	C4		Vydehi Hospital	B6	
J P Nagar 4th Phase	C4		P			W		
Jalahalli	A2		Pattanageri (RVEC)	C1		Whitefield	B6	
Jayadeva Hospital	C4		Peenya	A2		Y		
Jayanagar	C3		Peenya Industry	A2		Yeshwanthpur	B2	
Jindal	A1		Pottery Town	B4		Yeshwanthpur Ind.t	A2	
Jyotipura	B5		Puttenahalli	C2				

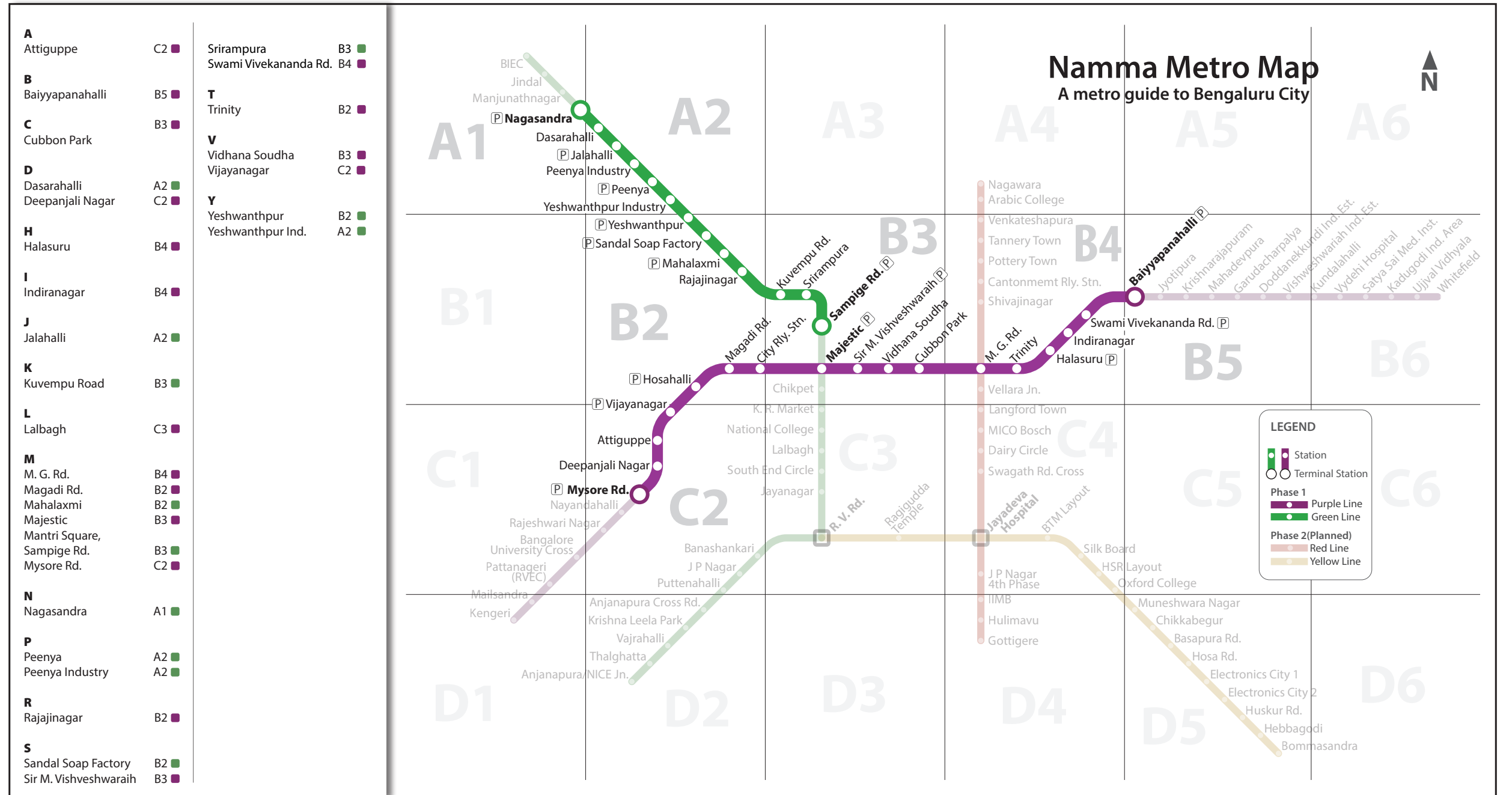
C	Cantonment Rly. Stn.	B4	K	K. R. Market	C3	R	R. V. 9th Phase	C3
	Chikkabegur	D5		K. R. Puram	B5		Rajajinagar	C3
	Chikpet	B3		Kadugodi Ind. Area	B6		Rajeshwari Nagar	B2
	City Rly. Stn.	B2		Kengeri	D1			C2
	Cubbon Park	B3		Krishna Leela Park	D2			
				Kundalahalli	B6	S	Sandal Soap Factory	B2
				Kuvempu Road	B3		Satya Sai Medical	B6
D	Dairy Circle	C4	L	Lalbagh	C3		Shivajinagar	B4
	Dasarahalli	A2		Langford Town	C4			C4
	Deepanjali Nagar	C2					Shri Lakshmi Circle	B3
	Doddanekkundi Ind. Est.	B5					South End Circle	C3
E	Electronics City 1	D5	M	M. G. Rd.	B4		Srirampura	B3
	Electronics City 2	D5		Magadi Rd.	B2		Swagath Rd. Cross	C4
				Mahadevpura	B5		Swami Vivekananda Rd.	B4
G	Garudacharpalya	B5		Mahalaxmi	B2	T	Tannery Town	B4
	Gottigere	D4		Mailsandra	D1		Thalghatta	D2
				Majestic	B3		Trinity	B2
H	Halasuru	B4		Manjunathnagar	A1			
	Hebbagodi	D5		Mantri Square	B3	U	Ujjval Vidhyala	B6
	Hosa Rd.	D5		Mangalampalle Rd.	C4			
	Hosahalli	B2		Mysore Rd.	D5	V	Vajrahalli	D2
	HSR Layout	C4	N	Nagasandra	C2		Vellara Jn.	B4
	Hulimavu	D4		Nagawara	C1		Venkateshapura	B4
	Huskur Rd.	D5		National College	C3		Vidhana Soudha	B3
I	IIMB	D4		Nayandahalli	C2		Vijayanagar	C2
	Indiranagar	B4	O	Oxford College	C4		Vishweshwariah Ind. Est.	B5
							Vydehi Hospital	B6
J	J P Nagar	C2	P	Pattanageri (RVEC)	C1	W	Whitefield	B6
	J P Nagar 4th Phase	C4		Peenya	A2	Y	Yeshwanthpur	B2
	Jalahalli	A2		Peenya Industry	A2		Yeshwanthpur Ind.t	A2
	Jayadeva Hospital	C4		Pottery Town	B4			
	Jayanagar	C3		Puttenahalli	C2			
	Jindal	A1						
	Jyotipura	B5						

Interference repeats

Potrait



Landscape

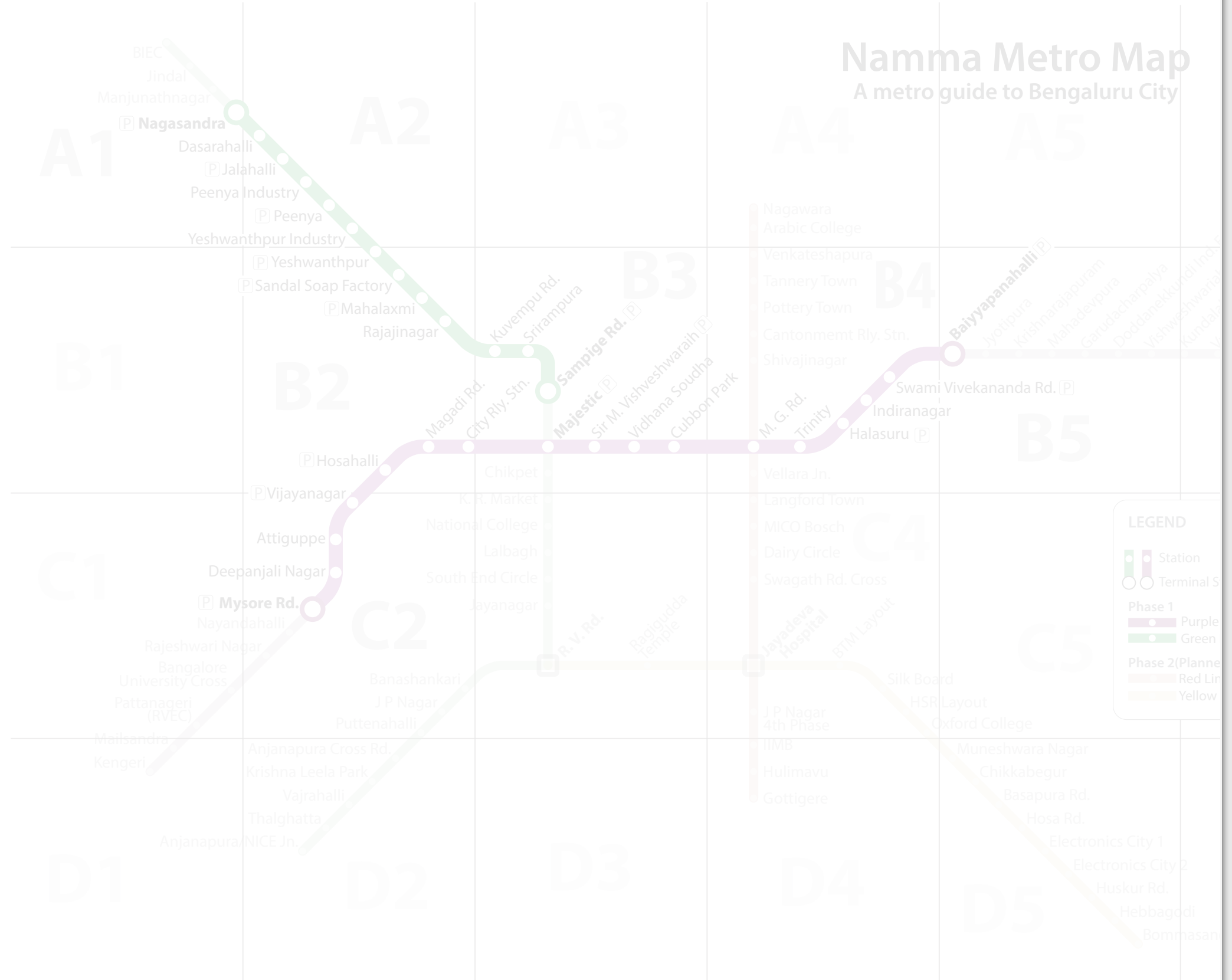


Eliminated unactive stations

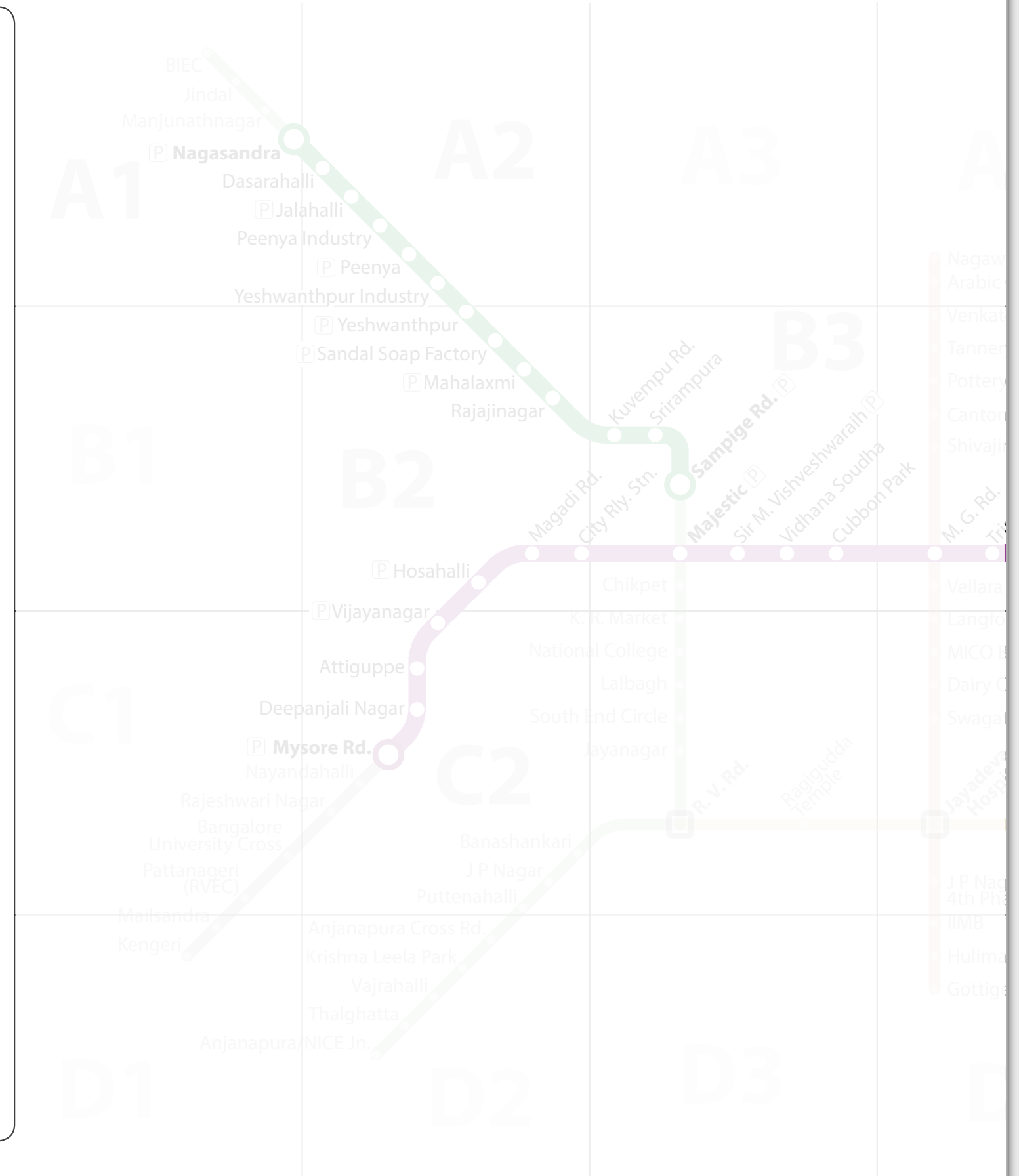
A ttiguppe	C2
B aiyyapanahalli	B5
C ubbon Park	B3
D asarahalli	A2
Deepanjali Nagar	C2
H alasuru	B4
I ndiranagar	B4
J alahalli	A2
K uvempu Road	B3
L albagh	C3
M . G. Rd.	B4
Magadi Rd.	B2
Mahalaxmi	B2
Majestic	B3
Mantri Square, Sampige Rd.	B3
Mysore Rd.	C2
N agasandra	A1
P eenya	A2
Peenya Industry	A2
R ajajinagar	B2
S andal Soap Factory	B2
Sir M. Vishveshwariah	B3
Srirampura	B3
Swami Vivekananda Rd.	B4
T rinity	B2
V idhana Soudha	B3
Vijayanagar	C2
Y eshwanthpur	B2
Yeshwanthpur Ind.	A2

Namma Metro Map

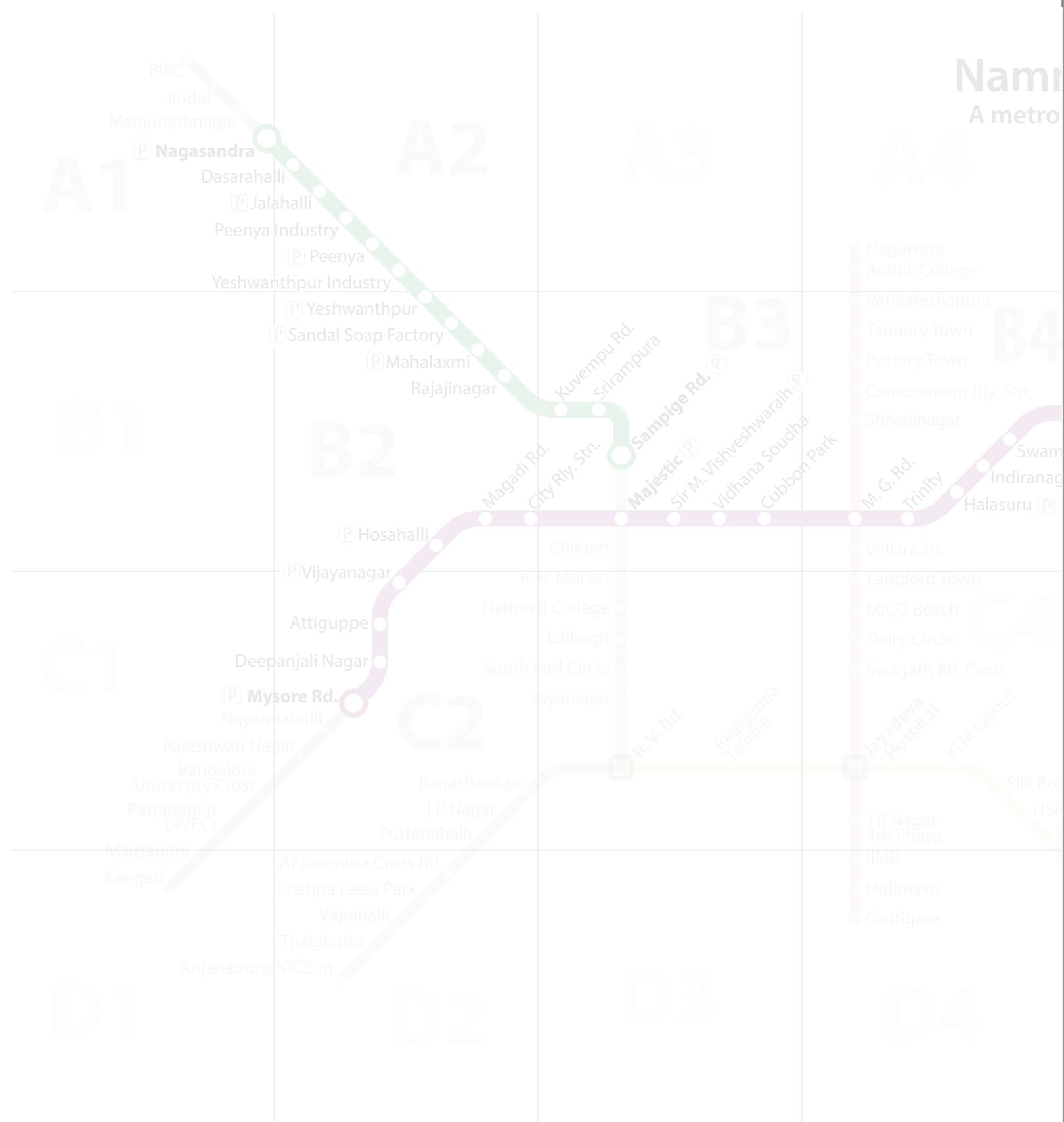
A metro guide to Bengaluru City



A Attiguppe	C2	A Attiguppe	C2
B Baiyyapanahalli	B5	B Baiyyapanahalli	B5
C Cubbon Park	B3	C Cubbon Park	B3
D Dasarahalli	A2	D Dasarahalli	A2
Deepanjali Nagar	C2	Deepanjali Nagar	C2
H Halasuru	B4	H Halasuru	B4
I Indiranagar	B4	I Indiranagar	B4
J Jalahalli	A2	J Jalahalli	A2
K Kuvempu Road	B3	K Kuvempu Road	B3
L Lalbagh	C3	L Lalbagh	C3
M M. G. Rd.	B4	M M. G. Rd.	B4
Magadi Rd.	B2	Magadi Rd.	B2
Mahalaxmi	B2	Mahalaxmi	B2
Majestic	B3	Majestic	B3
Mantri Square,		Mantri Square,	
Sampige Rd.	B3	Sampige Rd.	B3
Mysore Rd.	C2	Mysore Rd.	C2
N Nagasandra	A1	N Nagasandra	A1
P Peenya	A2	P Peenya	A2
Peenya Industry	A2	Peenya Industry	A2
R Rajajinagar	B2	R Rajajinagar	B2
S Sandal Soap Factory	B2	S Sandal Soap Factory	B2
Sir M. Vishveshwariah	B3	Sir M. Vishveshwariah	B3
Srirampura	B3	Srirampura	B3
Swami Vivekananda Rd.	B4	Swami Vivekananda Rd.	B4
T Trinity	B2	T Trinity	B2
V Vidhana Soudha	B3	V Vidhana Soudha	B3
Vijayanagar	C2	Vijayanagar	C2
Y Yeshwanthpur	B2	Y Yeshwanthpur	B2
Yeshwanthpur Ind.	A2	Yeshwanthpur Ind.	A2



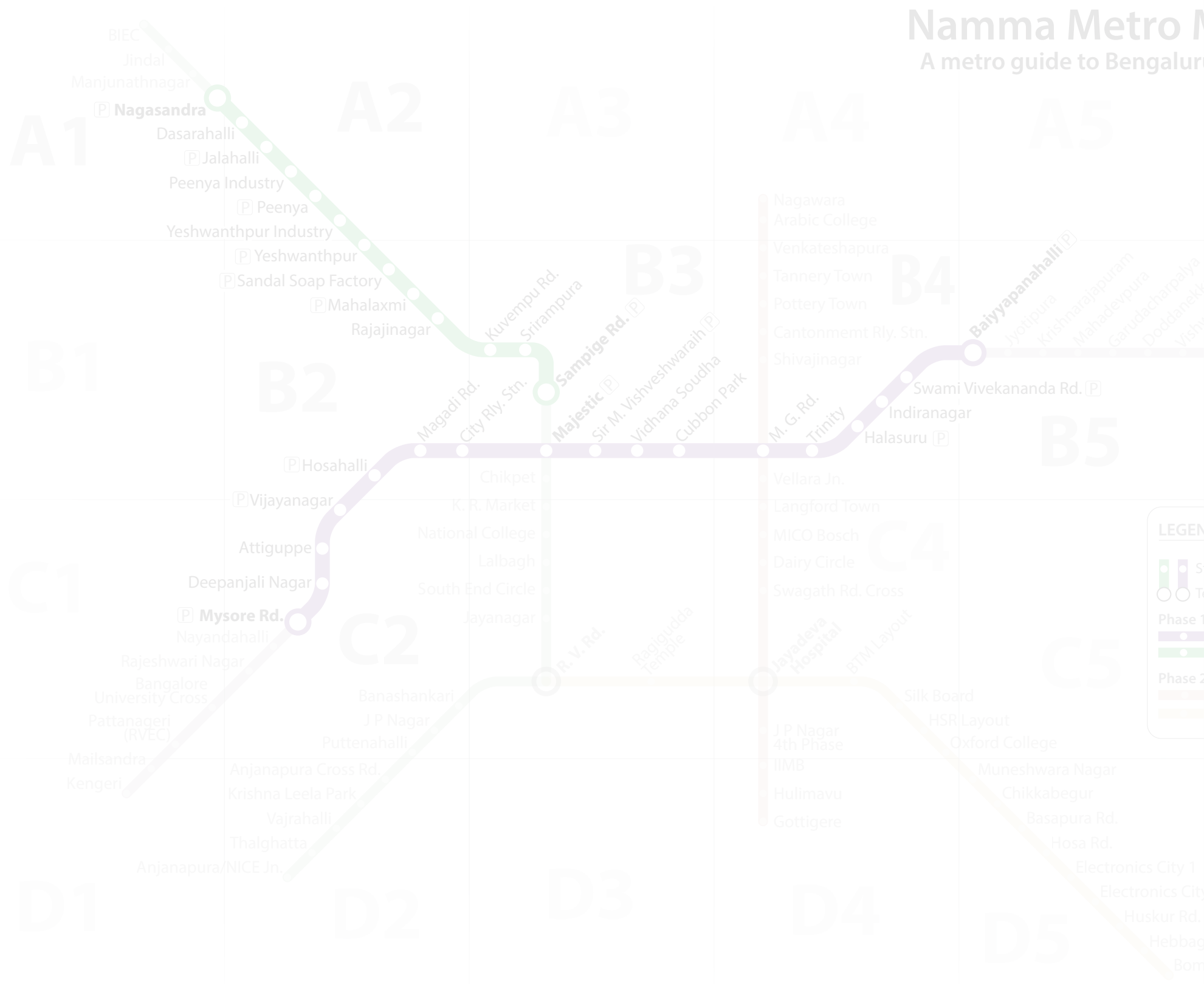
A Attiguppe	C2 ■	V Vidhana Soudha	B3 ■
		Vijayanagar	C2 ■
B Baiyyapanahalli	B5 ■	Y Yeshwanthpur	B2 ■
C Cubbon Park	B3 ■	Yeshwanthpur Ind.	A2 ■
D Dasarahalli	A2 ■	A Attiguppe	C2 ■
Deepanjali Nagar	C2 ■	B Baiyyapanahalli	B5 ■
H Halasuru	B4 ■	C Cubbon Park	B3 ■
I Indiranagar	B4 ■	D Dasarahalli	A2 ■
J Jalahalli	A2 ■	Deepanjali Nagar	C2 ■
K Kuvempu Road	B3 ■	H Halasuru	B4 ■
M M. G. Rd.	B4 ■	I Indiranagar	B4 ■
Magadi Rd.	B2 ■	J Jalahalli	A2 ■
Mahalaxmi	B2 ■	K Kuvempu Road	B3 ■
Majestic	B3 ■	M M. G. Rd.	B4 ■
Mantri Square,		Magadi Rd.	B2 ■
Sampige Rd.	B3 ■	Mahalaxmi	B2 ■
Mysore Rd.	C2 ■	Majestic	B3 ■
N Nagasandra	A1 ■	Mantri Square,	B3 ■
P Peenya	A2 ■	Sampige Rd.	B3 ■
Peenya Industry	A2 ■	Mysore Rd.	C2 ■
R Rajajinagar	B2 ■	N Nagasandra	A1 ■
S Sandal Soap Factory	B2 ■	P Peenya	A2 ■
Sir M. Vishveshwaraiah	B3 ■	Peenya Industry	A2 ■
Srirampura	B3 ■	R Rajajinagar	B2 ■
Swami Vivekananda Rd.	B4 ■		
T Trinity	B3 ■		



Namma Metro M

A metro guide to Bengaluru

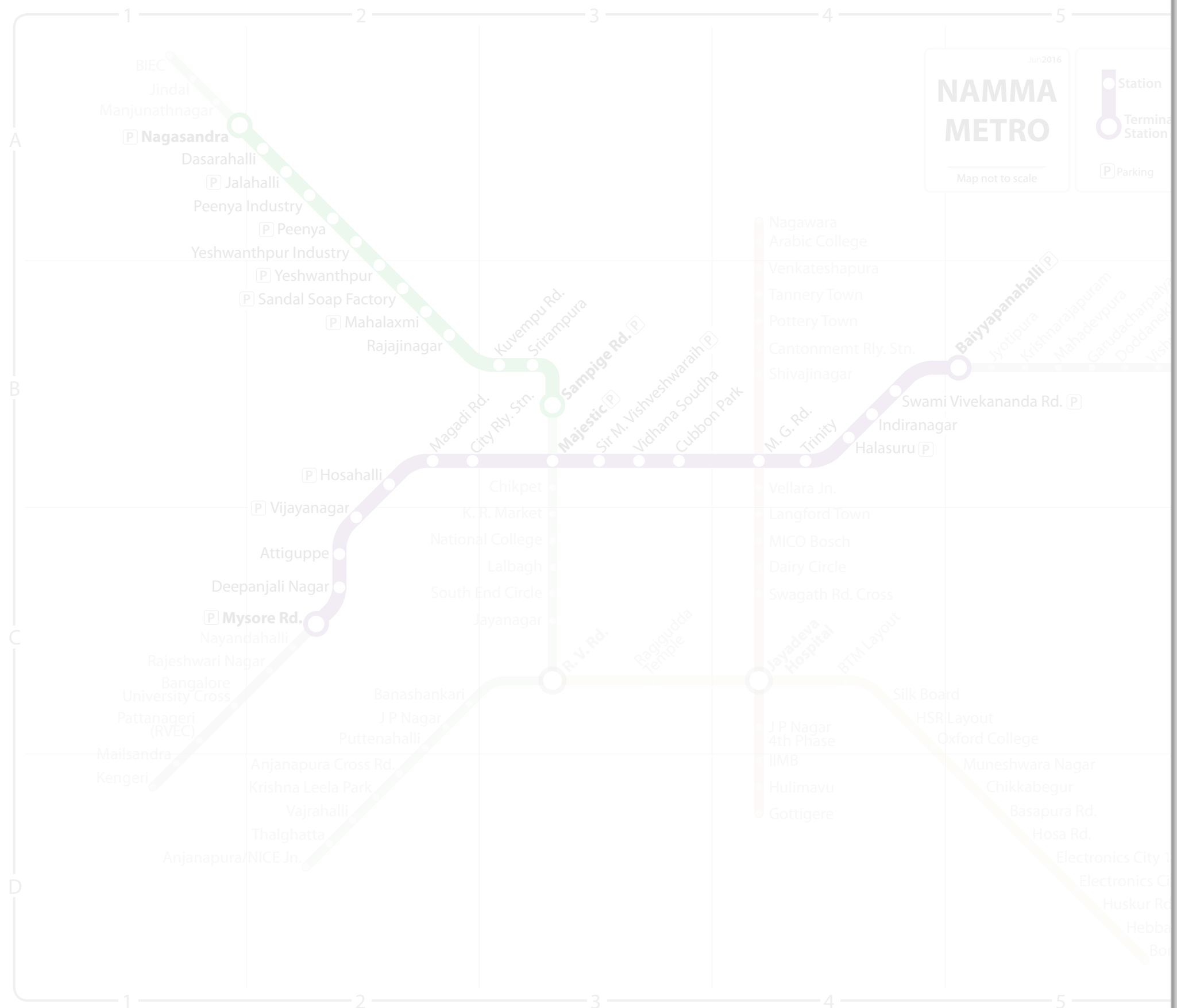
Station Name Index		
A	Attiguppe	C2
B	Baiyyapanahalli	B5
C	Cubbon Park	B3
D	Dasarahalli	A2
	Deepanjali Nagar	C2
H	Halasuru	B4
I	Indiranagar	B4
J	Jalahalli	A2
K	Kuvempu Road	B3
L	Lalbagh	C3
M	M. G. Rd.	B4
	Magadi Rd.	B2
	Mahalaxmi	B2
	Majestic	B3
	Mantri Sq,Sampige Rd.	B3
	Mysore Rd.	C2
N	Nagasandra	A1
P	Peenya	A2
	Peenya Industry	A2
R	Rajajinagar	B2
S	Sandal Soap Factory	B2
	Sir M. Vishveshwaraiah	B3
	Srirampura	B3
	Swami Vivekananda Rd.	B4
T	Trinity	B2
V	Vidhana Soudha	B3
	Vijayanagar	C2
Y	Yeshwanthpur	B2
	Yeshwanthpur Ind.	A2



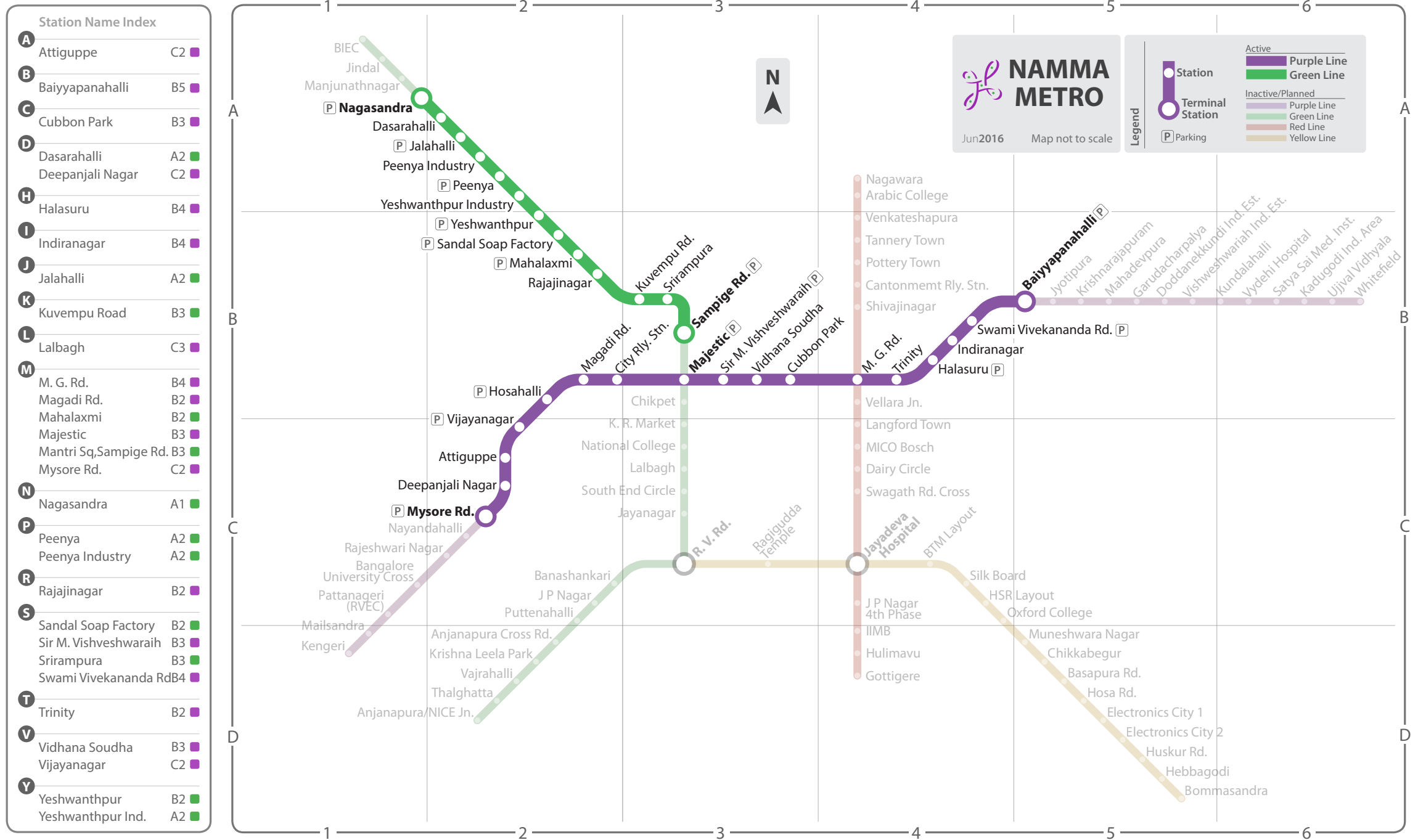
LEGEND

- Phase 1
- Phase 2
- Phase 3

Station Name Index		
A	Attiguppe	C2 ■
B	Baiyyapanahalli	B5 ■
C	Cubbon Park	B3 ■
D	Dasarahalli	A2 ■
	Deepanjali Nagar	C2 ■
H	Halasuru	B4 ■
I	Indiranagar	B4 ■
J	Jalahalli	A2 ■
K	Kuvempu Road	B3 ■
L	Lalbagh	C3 ■
M	M. G. Rd.	B4 ■
	Magadi Rd.	B2 ■
	Mahalaxmi	B2 ■
	Majestic	B3 ■
	Mantri Sq,Sampige Rd.	B3 ■
	Mysore Rd.	C2 ■
N	Nagasandra	A1 ■
P	Peenya	A2 ■
	Peenya Industry	A2 ■
R	Rajajinagar	B2 ■
S	Sandal Soap Factory	B2 ■
	Sir M. Vishveshwaraiah	B3 ■
	Srirampura	B3 ■
	Swami Vivekananda Rd	B4 ■
T	Trinity	B2 ■
V	Vidhana Soudha	B3 ■
	Vijayanagar	C2 ■
Y	Yeshwanthpur	B2 ■
	Yeshwanthpur Ind.	A2 ■



When all the elements are
put together then.....





Whats on the backside of map?



Space for Advertisement

Basic info. of
Metro Service