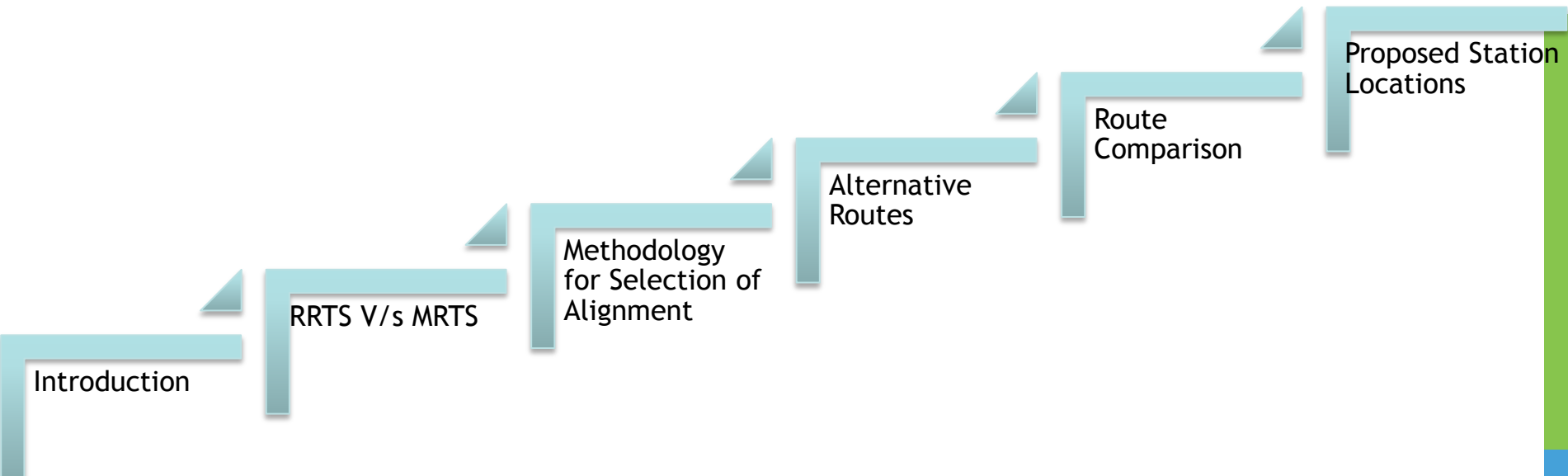


Urban Mass Transit
Company Limited

PRESENTATION ON DELHI-GURGAON-REWARI-ALWAR RRTS CORRIDOR ALIGNMENT

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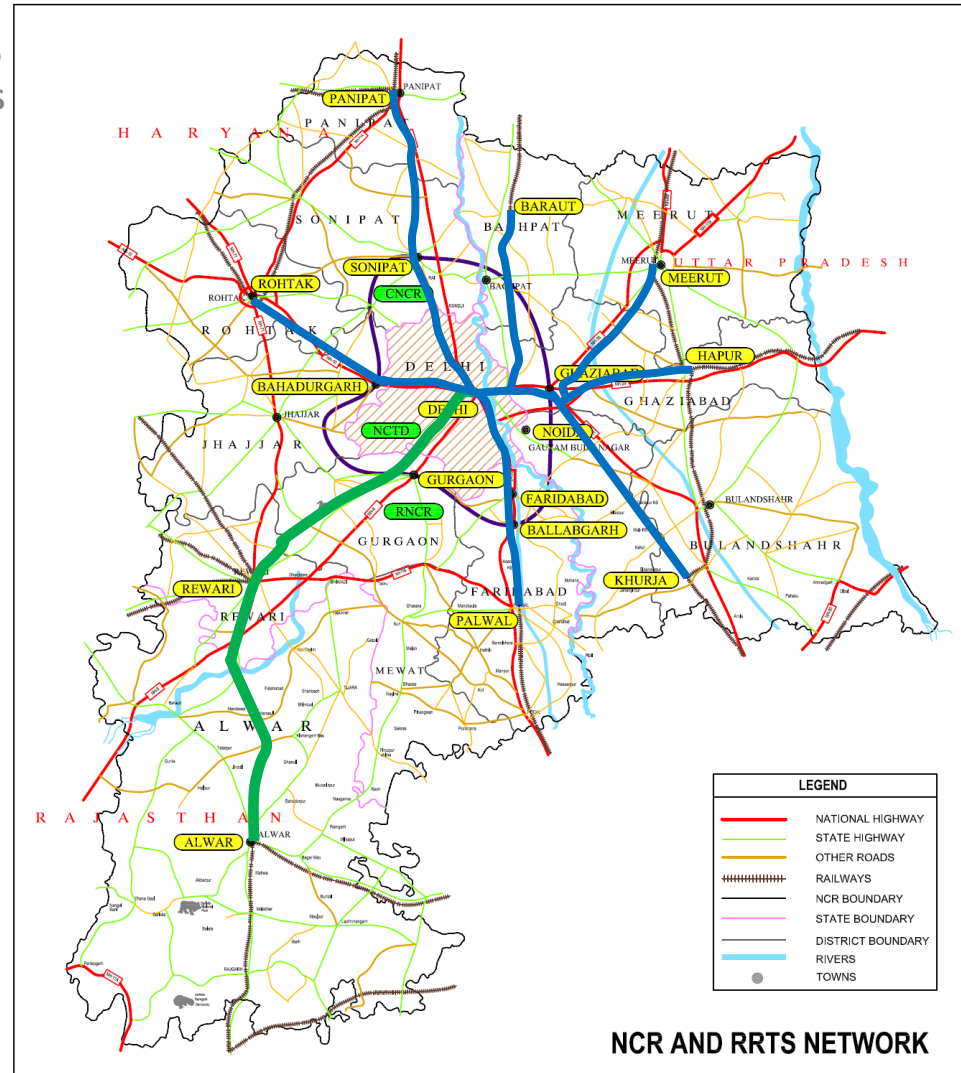
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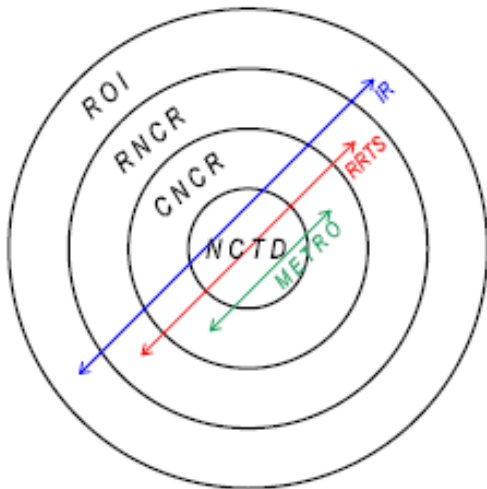
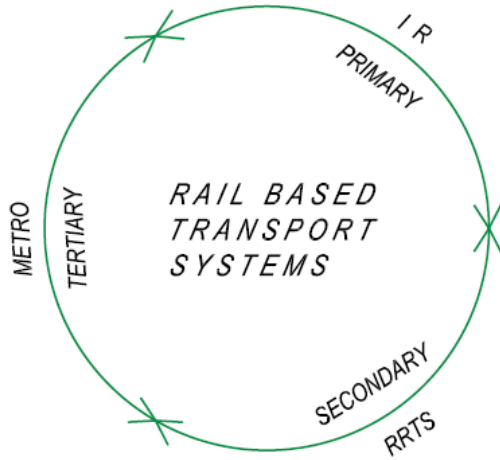
Proposed Station
Locations

Introduction

- NCRPB) - Horizon 2032 - Identified Eight RRTS (Regional Rapid Transit System) Rail Corridors
 - Delhi - Gurgaon - Rewari - Alwar (158 Kms) [DGRA - Project Corridor]
 - Delhi - Ghaziabad - Meerut (67 Kms)
 - Delhi - Sonipat - Panipat (89 Kms)
 - Delhi - Faridabad - Ballabgarh - Palwal (60kms)
 - Delhi - Bahadurgarh - Rohtak (70 Kms)
 - Delhi - Shahadra - Baraut (56 Kms)
 - Ghaziabad - Khurja (83 Kms)
 - Ghaziabad - Hapur (57 Kms)
- RRTS corridors development broadly along the existing rail alignments
 - Deviate where necessary to connect - present and likely growth centers
 - RRTS to provide a rapid transportation system for intra regional movement

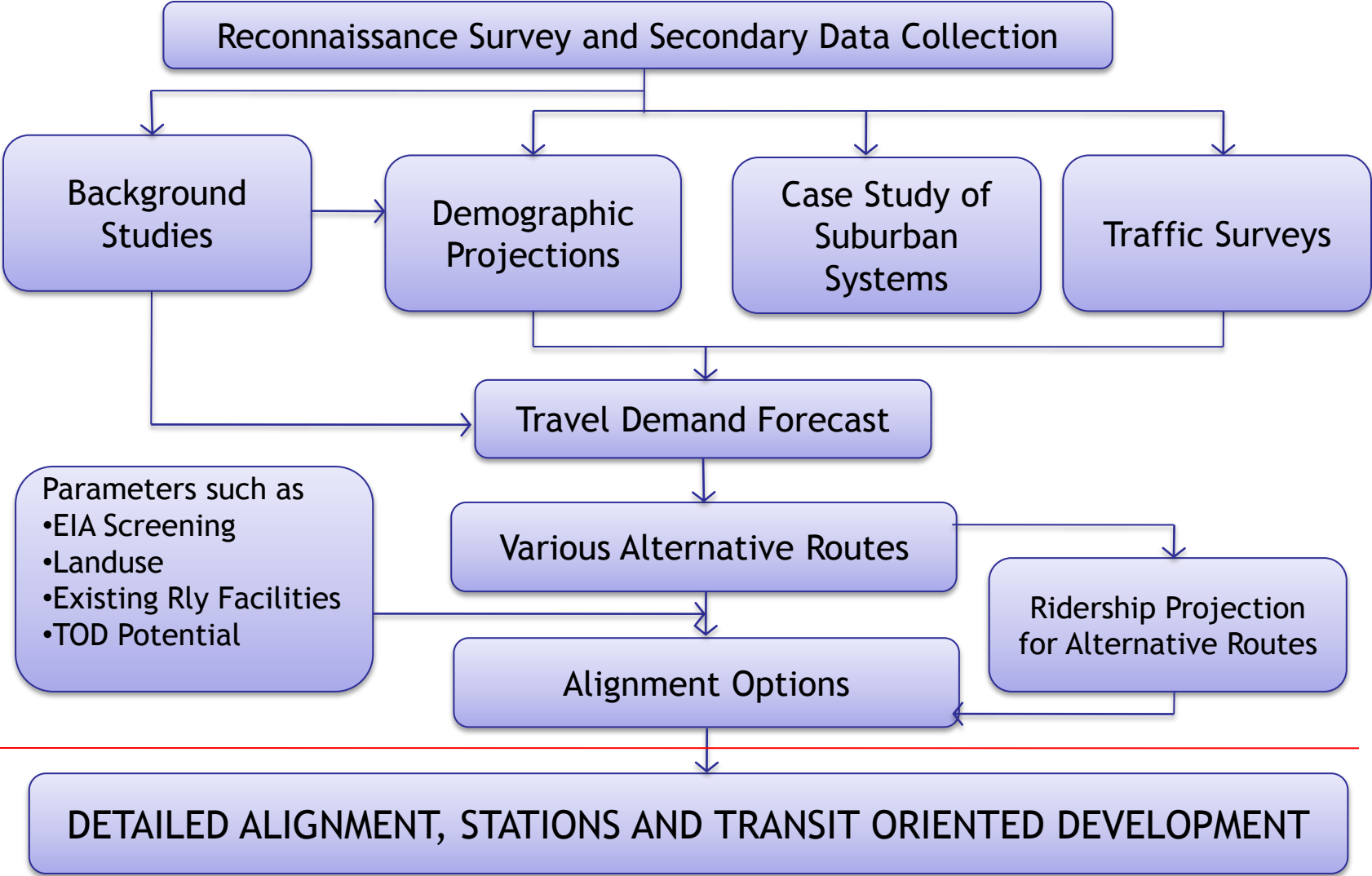


RRTS v/s MRTS



Parameter	RRTS	METRO/ MRTS
Traffic Served	Inter city/ Intra Regional	Intra City / Sub urban
Station Spacing (Km)	5 +	0.8 to 2
Average Station Spacing (Km)	10	1
Max Speed (KmPH)	160 +	80
Booked Speed (KmPH)	145 +	70
Average Speed (KmPH)	80 - 100	28 - 35

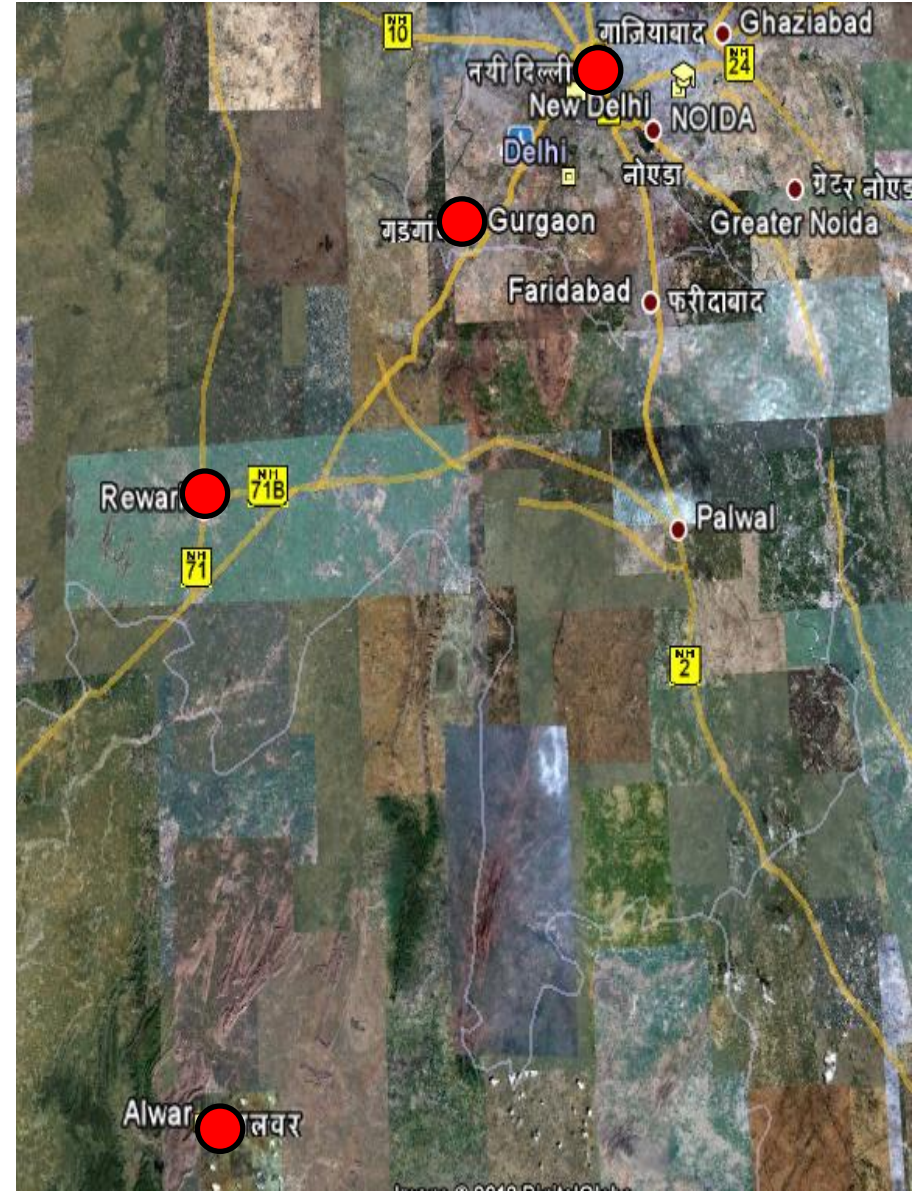
Methodology for Alignment Selection



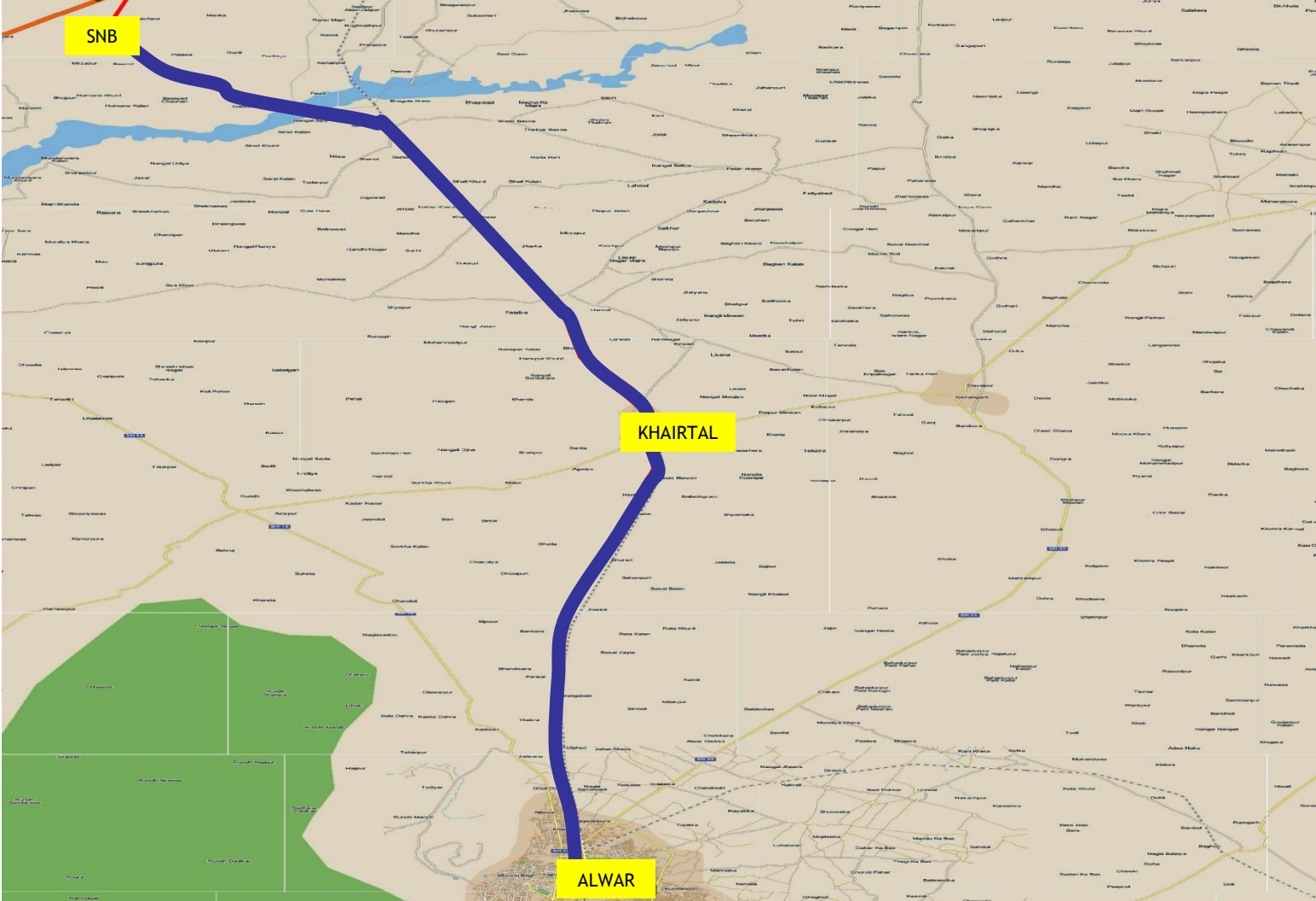
Route Planning

- **Considerations**

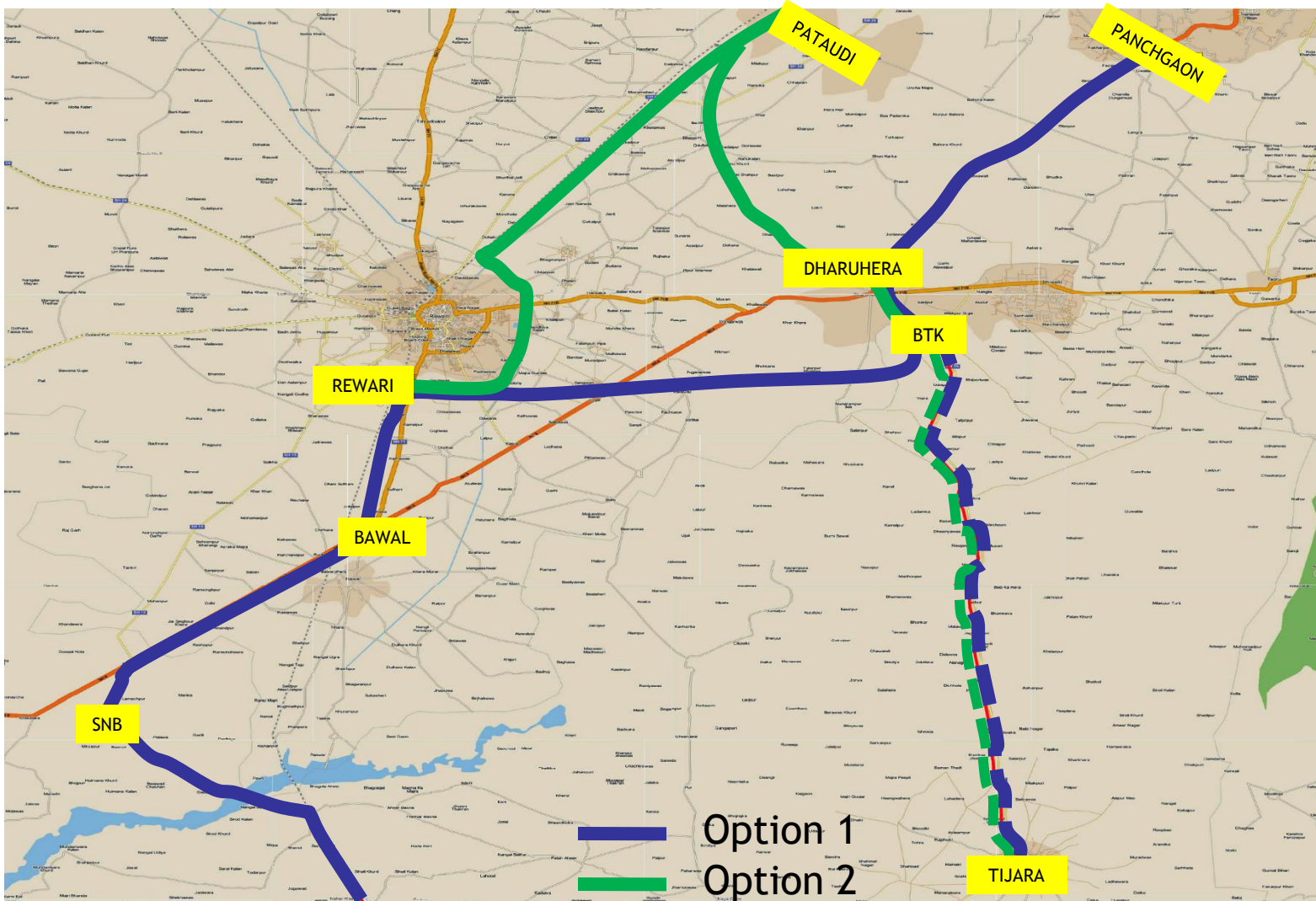
- DMRC network Development in NCTD and CNCR zones
- Development in Gurgaon-Rewari Region (DMIC project)
- Multiple access nodes within NCTD - Distributed Boarding / Alighting
- Minimum necessary access nodes to achieve the desired higher speeds



Route Options: Alwar - SNB



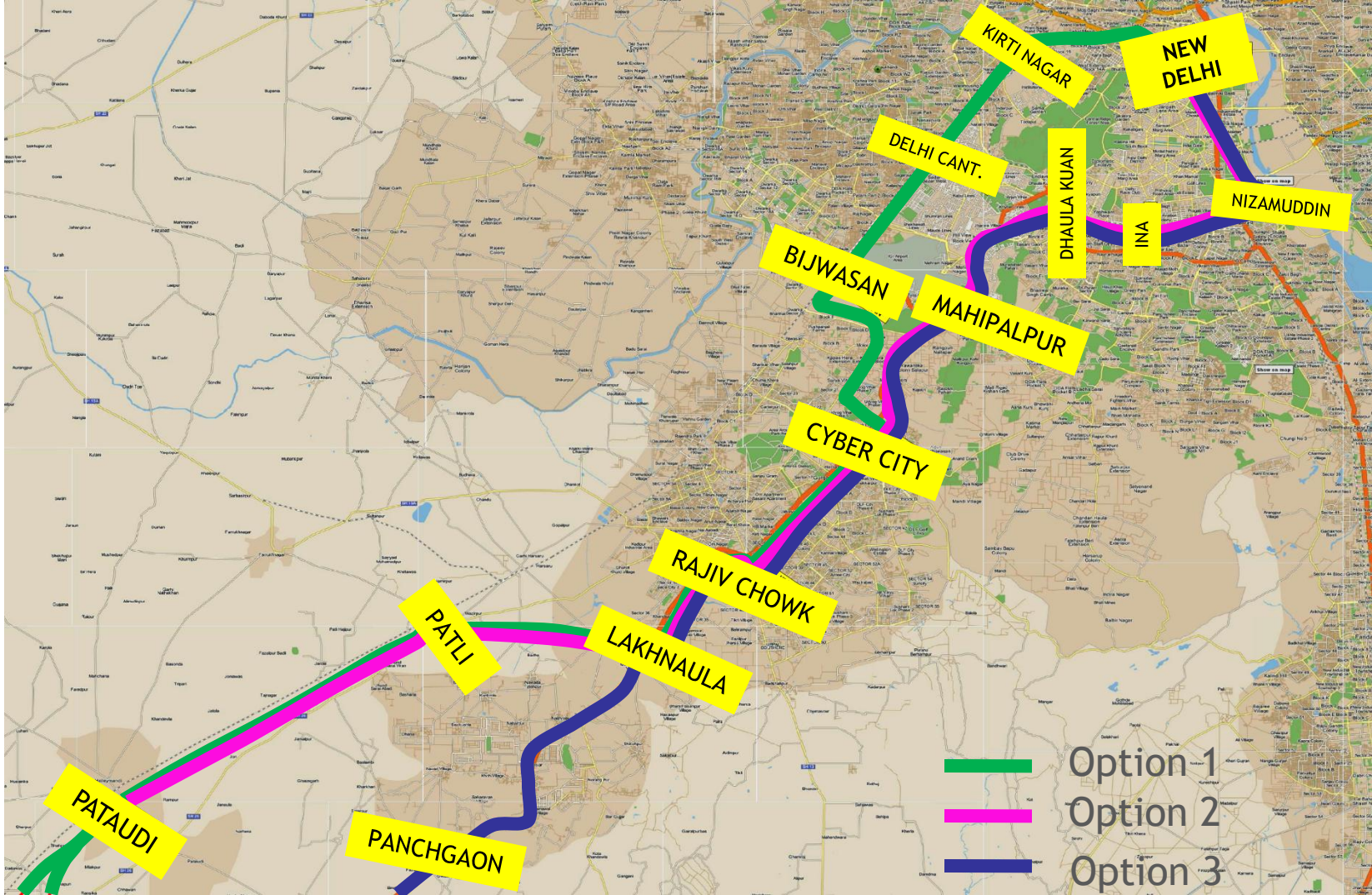
Route Options: SNB – Rewari – Pataudi/Panchgaon



Option 1
Option 2

Future Extn

Route Options: Pataudi / Panchgaon – New Delhi



Route Comparison

Route	Option 1	Option 2	Option 3
Route Description	New Delhi - Kirti Nagar - Bijwasan - Cyber City - Rajiv Chowk - Lakhnaula - Patli - Pataudi - Rewari - Bawal - Alwar Pataudi - Dharuhera - BTK - Tijara	New Delhi - Nizamuddin - Dhaula Kuan - Mahipalpur - Cyber City - Rajiv Chowk - Lakhnaula - Patli - Pataudi - Rewari - Bawal - Alwar Pataudi - Dharuhera - BTK - Tijara	New Delhi - Nizamuddin - Dhaula kuan - Mahipalpur - Cyber City - Rajiv Chowk - Lakhnaula - Panchgaon - Dharuhera - BTK - Rewari - Bawal - Alwal BTK - Tijara (Future)
Daily Traffic, lakh 2031	8.00 (-11%)	8.25 (-8%)	9.00
Peak Sectional Load in '000, 2031	18	18	16
Important nodes Served	Cyber City, Patli, Pataudi, Rewari	Cyber City, Patli, Pataudi, Rewari	Cyber City, Panchgaon, Dharuhera, BTK, Rewari
Important Nodes Not Served	Panchgaon	Panchgaon	Patli, Pataudi
Airport Connectivity	Bijwasan	Mahipalpur	Mahipalpur

Route Comparison

Route	Option 1	Option 2	Option 3
Route Description	New Delhi - Kirti Nagar - Bijwasan - Cyber City - Rajiv Chowk - Lakhnaula-Patli - Pataudi - Rewari - Bawal - Alwar Pataudi - Dharuhera - BTK - Tijara	New Delhi - Nizamuddin - Dhaula Kuan - Mahipalpur - Cyber City - Rajiv Chowk - Lakhnaula- Patli - Pataudi - Rewari - Bawal - Alwar Pataudi - Dharuhera - BTK - Tijara	New Delhi - Nizamuddin - Dhaula kuan - Mahipalpur - Cyber City - Rajiv Chowk - Lakhnaula - Panchgaon - Dharuhera - BTK - Rewari - Bawal - Alwal BTK - Tijara (Future)
Metro / MRTS Connectivity	New Delhi, Kirti Nagar, Cyber City, Rajiv Chowk, Mohammadpur Jharsa (Lakhnaula) <u>5 Nodes</u>	New Delhi, Nizamuddin, Jorbagh(INA), Dhaula Kuan, Cyber City, Rajiv Chowk, Mohammadpur Jharsa (Lakhnaula) <u>7 Nodes</u>	New Delhi, Nizamuddin, Jorbagh(INA), Dhaula Kuan, Cyber City, Rajiv Chowk, Mohammadpur Jharsa (Lakhnaula), Panchgaon <u>8 Nodes</u>
Multi Modal / Inter-state Connectivity	New Delhi	New Delhi, Nizamuddin	New Delhi, Nizamuddin

Route Comparison

Route	Option 1	Option 2	Option 3
Route Description	<p>New Delhi - Kirti Nagar - Bijwasan - Cyber City - Rajiv Chowk - Lakhnaula-Patli - Pataudi - Rewari - Bawal - Alwar</p> <p>Pataudi - Dharuhera - BTK - Tijara</p>	<p>New Delhi - Nizamuddin - Dhaula Kuan - Mahipalpur - Cyber City - Rajiv Chowk - Lakhnaula- Patli - Pataudi - Rewari - Bawal - Alwar</p> <p>Pataudi - Dharuhera - BTK - Tijara</p>	<p>New Delhi - Nizamuddin - Dhaula kuan - Mahipalpur - Cyber City - Rajiv Chowk - Lakhnaula - Panchgaon - Dharuhera - BTK - Rewari - Bawal - Alwal</p> <p>BTK - Tijara (Future)</p>
Engineering Constraints	<ul style="list-style-type: none"> •NDLS station modernization envisages 3 level underground facilities. •Existing & Planned Metro lines have already occupied possible UG /elevated alignment on major roads •Other roads available are Narrow & Congested 	Minimal constraints	Minimal constraints

Proposed Route – Stations & Distances

From	To	Approximate Distance (Kms)	Approx. Cumulative Distance (Kms)
New Delhi	Nizamuddin	7.50	7.50
Nizamuddin	INA	5.30	12.80
INA	Dhaura Kuan	4.10	16.90
Dhaura Kuan	Mahipalpur	7.20	24.10
Mahipalpur	Cyber City	7.00	31.10
Cyber City	Rajiv Chowk	7.60	38.70
Rajiv Chowk	Manesar / Lakhnaula	7.50	46.20
Manesar / Lakhnaula	Panchgaon	12.70	58.90
Panchgaon	Dharuhera	14.80	73.70
Dharuhera	BTK	6.00	79.70
BTK	Rewari	21.10	100.80
Rewari	Bawal	9.20	110.00
Bawal	SNB	11.90	121.90
SNB	Khairtal	28.50	150.40
Khairtal	Alwar	24.40	174.80

Proposed Station Locations on the Alignment

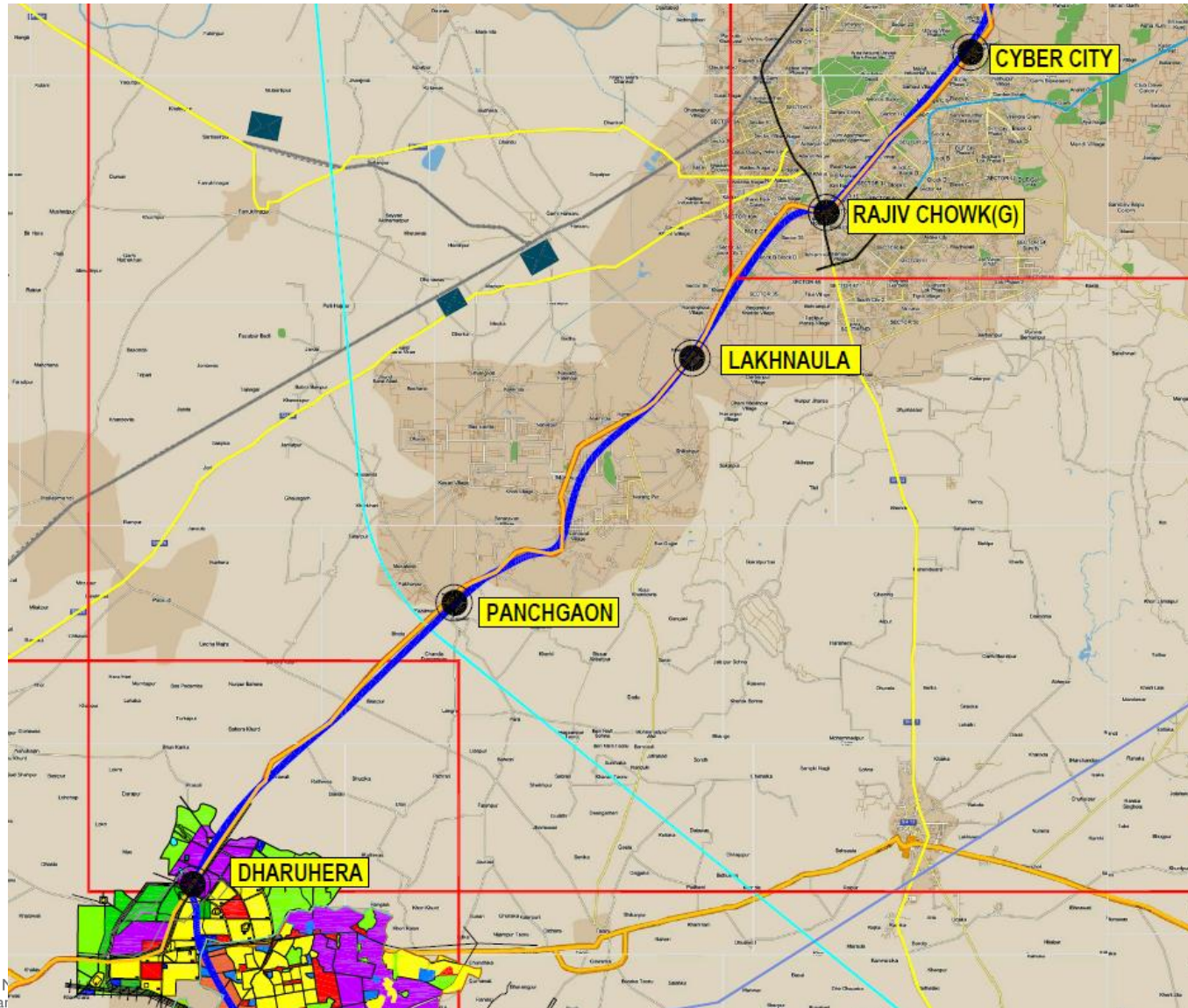
Proposed RRTS Station Locations

- **Considerations**

- Integration with Master Plan Land uses
- RRTS Stations have been proposed near proposed Transport Land use
- Availability of Space

Four RRTS Stations in Gurgaon-Manesar Urban Complex

Location on the Alignment

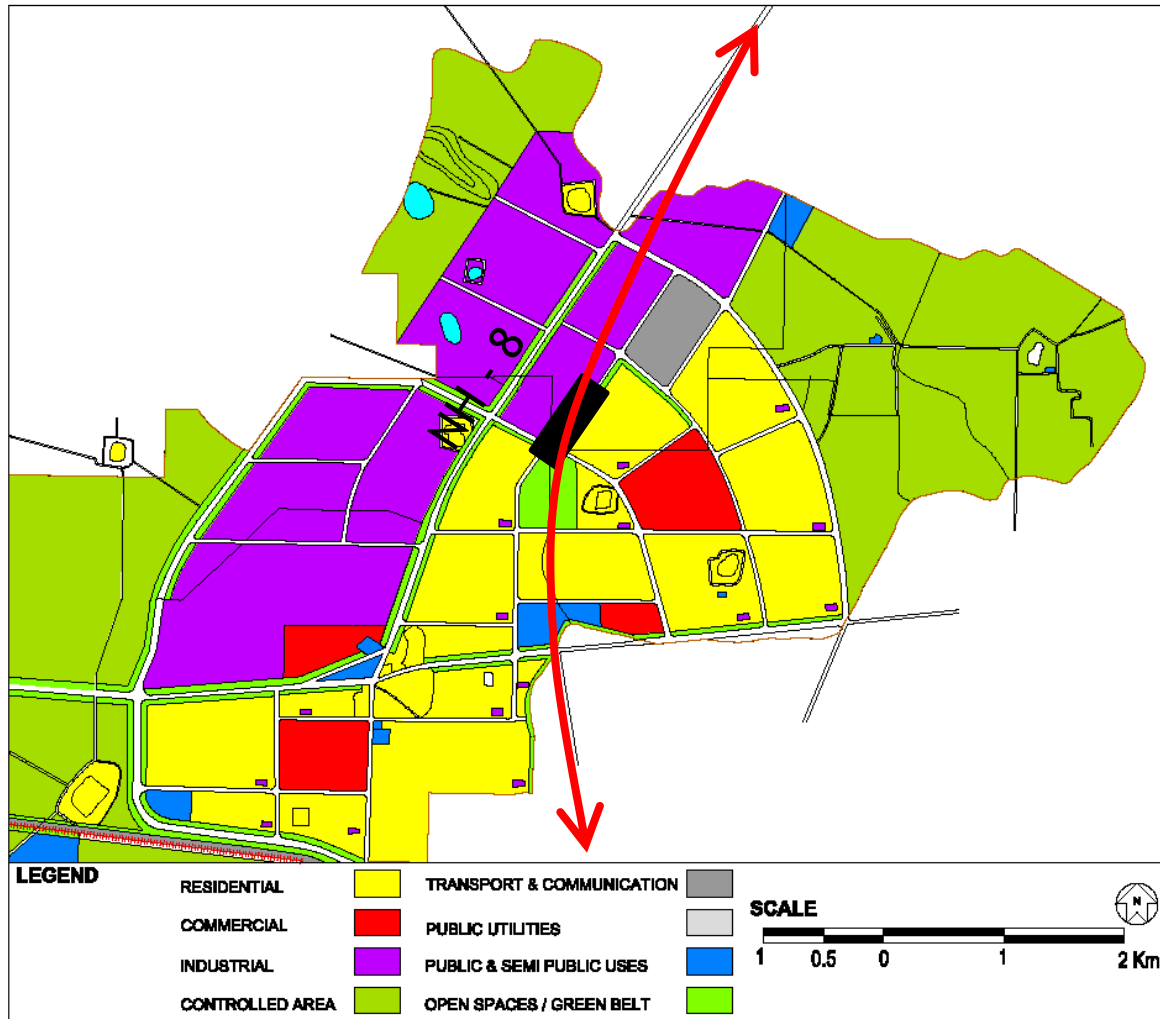


Dharuhera RRTS Station – Elevated Google Satellite Image Location



Dharuhera RRTS Station – Elevated

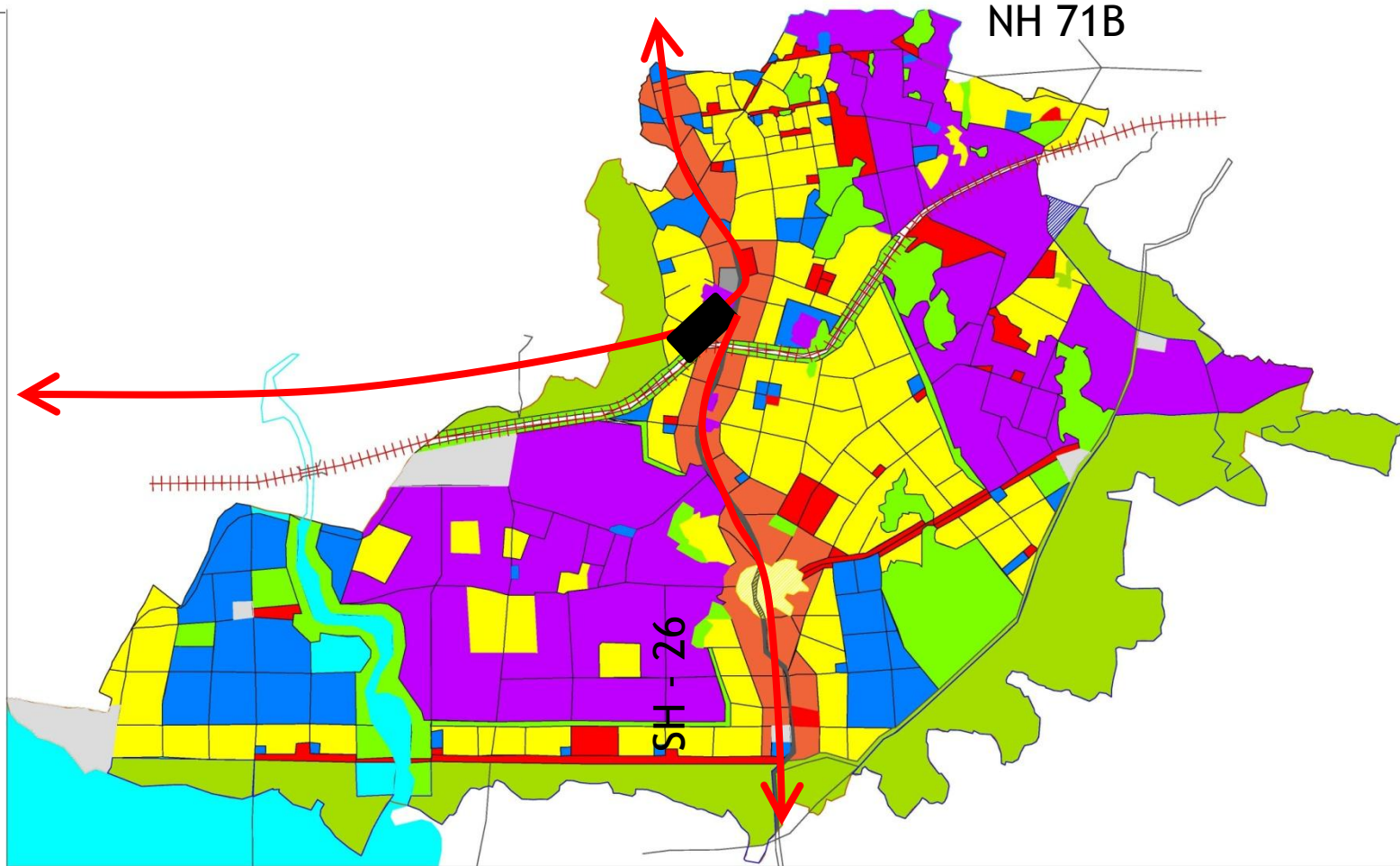
Location in Master Plan of Dharuhera - 2021



BTK RRTS Station – Elevated Location – Google Satellite Image



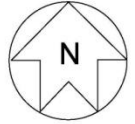
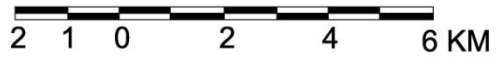
BTK RRTS Station – Proposed Transportation Land Use



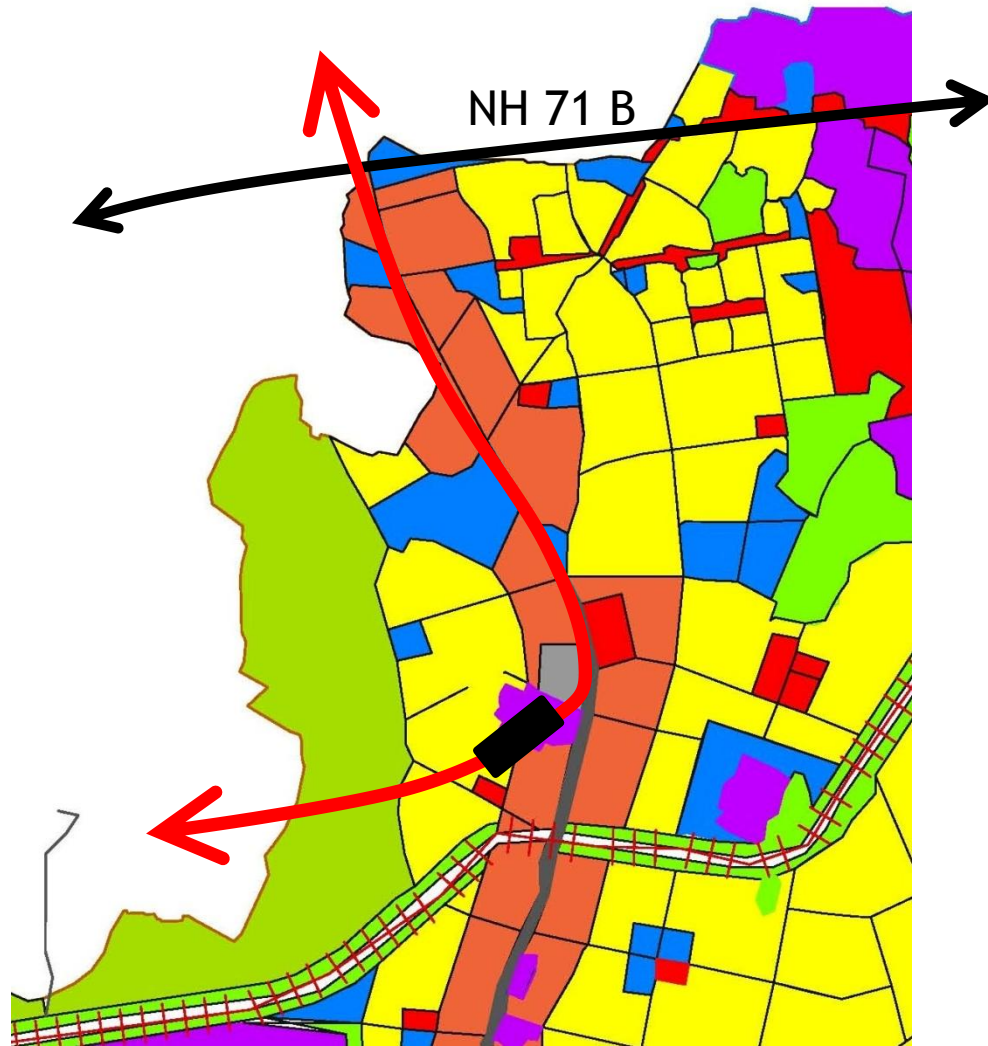
LEGEND

RESIDENTIAL		HIGH DENSITY MIXED USE		TRANSPORT & COMMUNICATION	
COMMERCIAL		PUBLIC UTILITIES			
INDUSTRIAL		PUBLIC & SEMI PUBLIC USES			
CONTROLLED AREA		OPEN SPACES / GREEN BELT			

SCALE



BTK RRTS Station – Elevated at Transportation Land Use proposed for ISBT



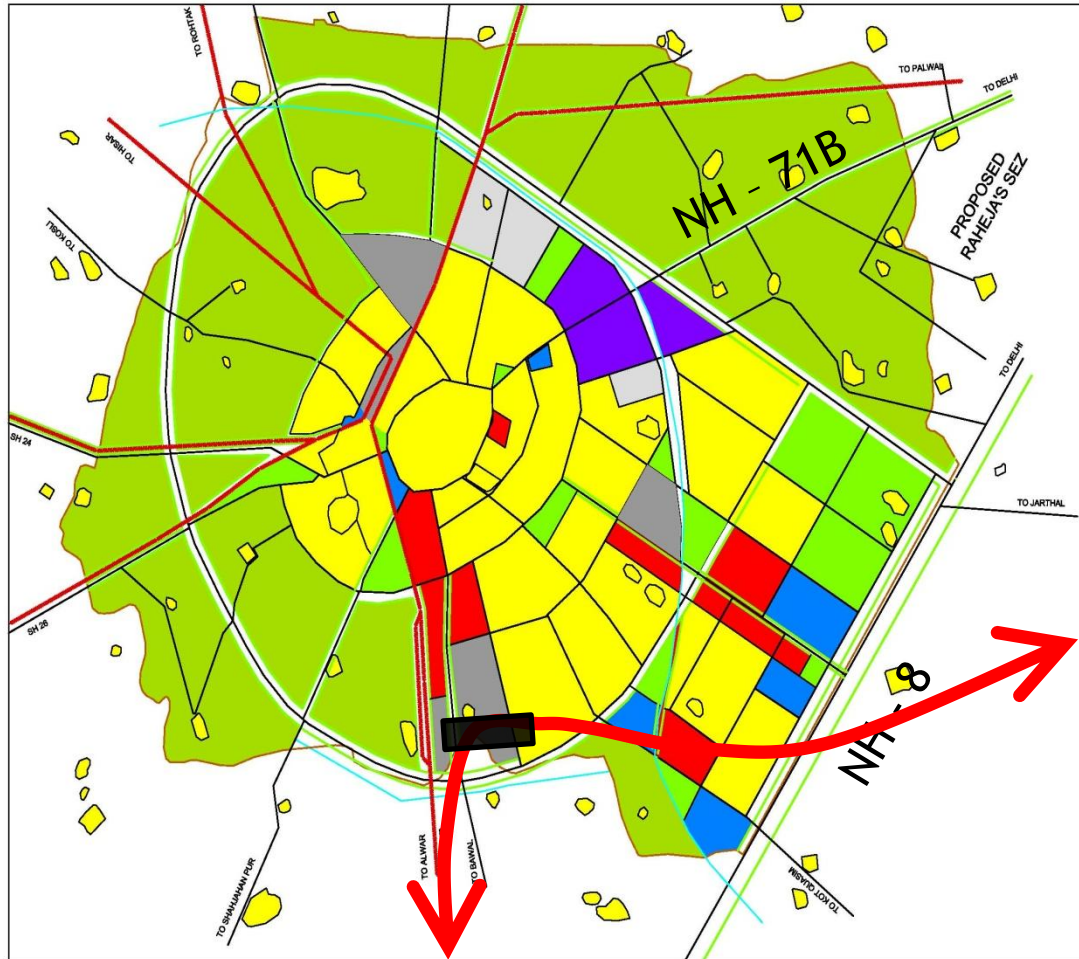
NH 71 B



SH - 26 and BTK

Rewari RRTS Station – Elevated

At the proposed Transportation Use – (Master Plan 2021)



LEGEND

RESIDENTIAL		TRANSPORT & COMMUNICATION	
COMMERCIAL		PUBLIC UTILITIES	
INDUSTRIAL		PUBLIC & SEMI PUBLIC USES	
CONTROLLED AREA		OPEN SPACES / GREEN BELT	

SCALE



Road abutting Rewari Railway Station



Rewari Railway Station

Rewari RRTS Station – Elevated

Location - South of Ring Road and Railway Intersection

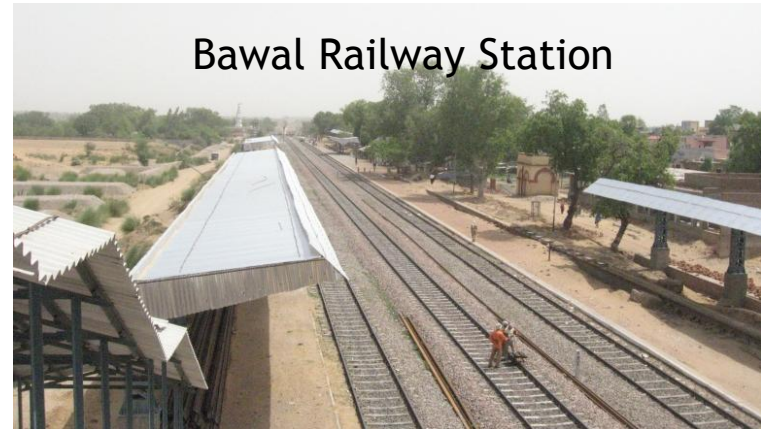


Bawal RRTS Station – Elevated

South of NH-8, West of Proposed Logistics Hub



Greenfield Development - potential
for TOD Development - Integrated
with Logistic Hub With DFC



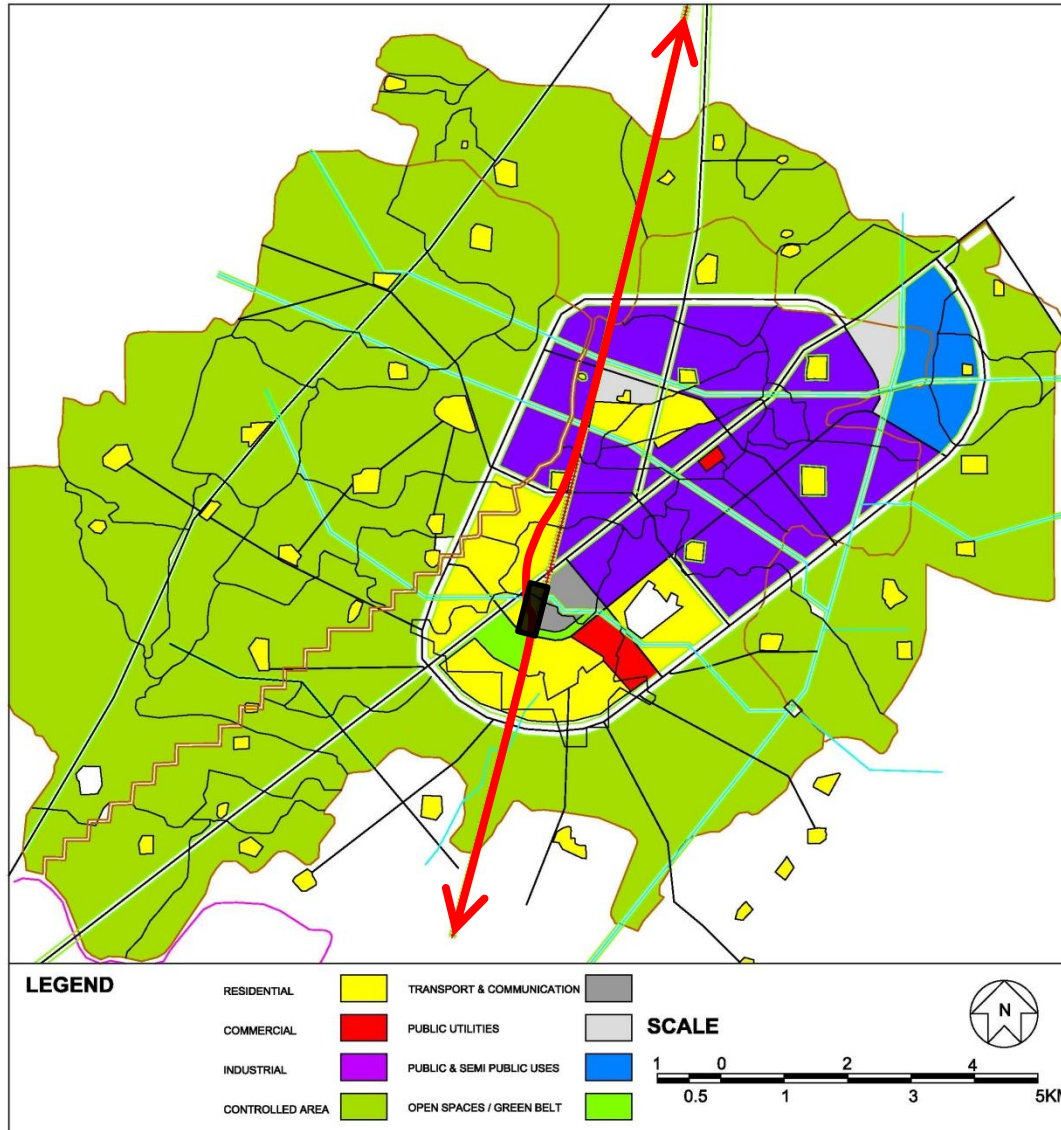
Bawal Railway Station



North of Bawal Settlement

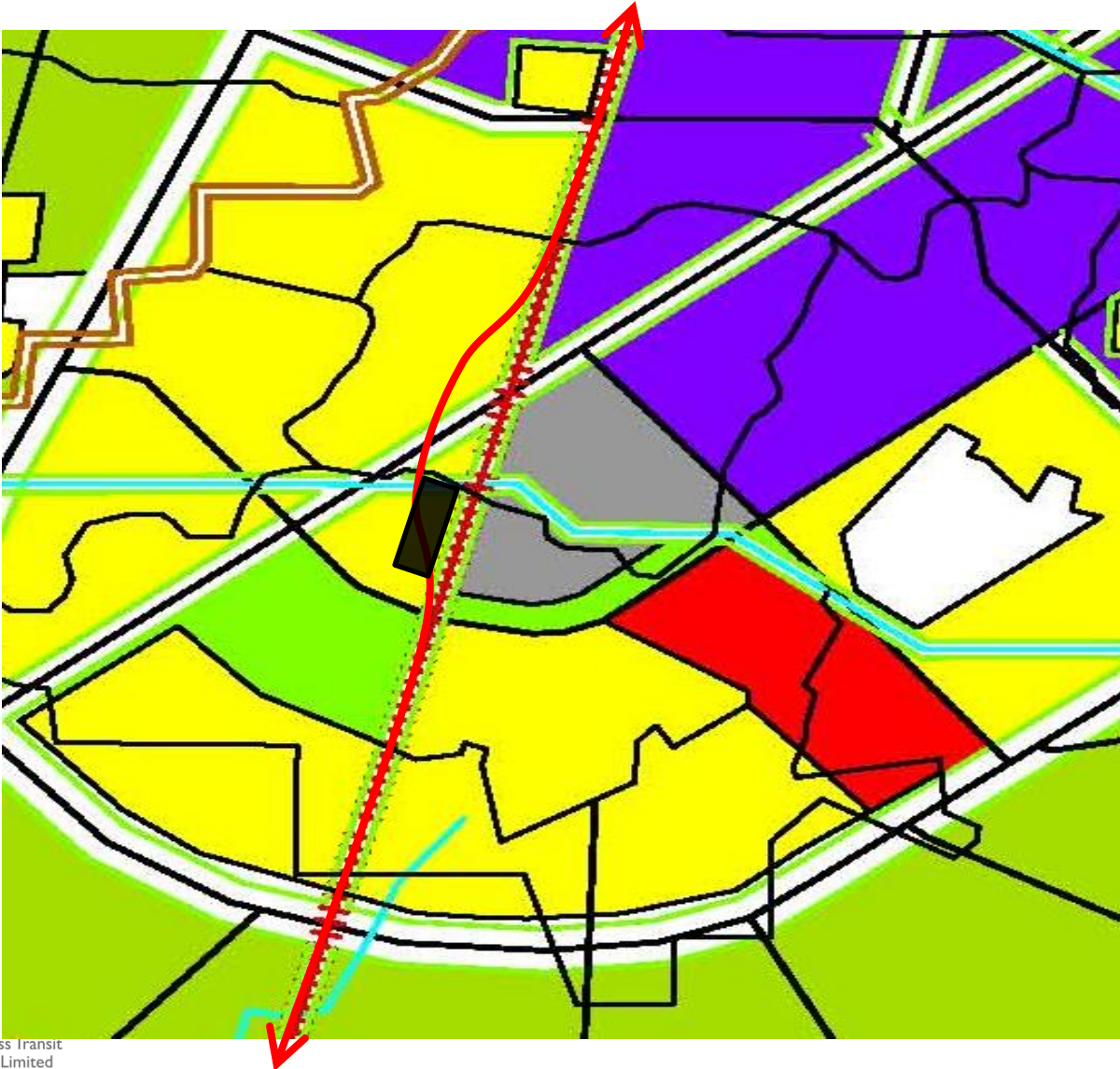
Bawal RRTS Station – Elevated

Master Plan of Bawal - 2021

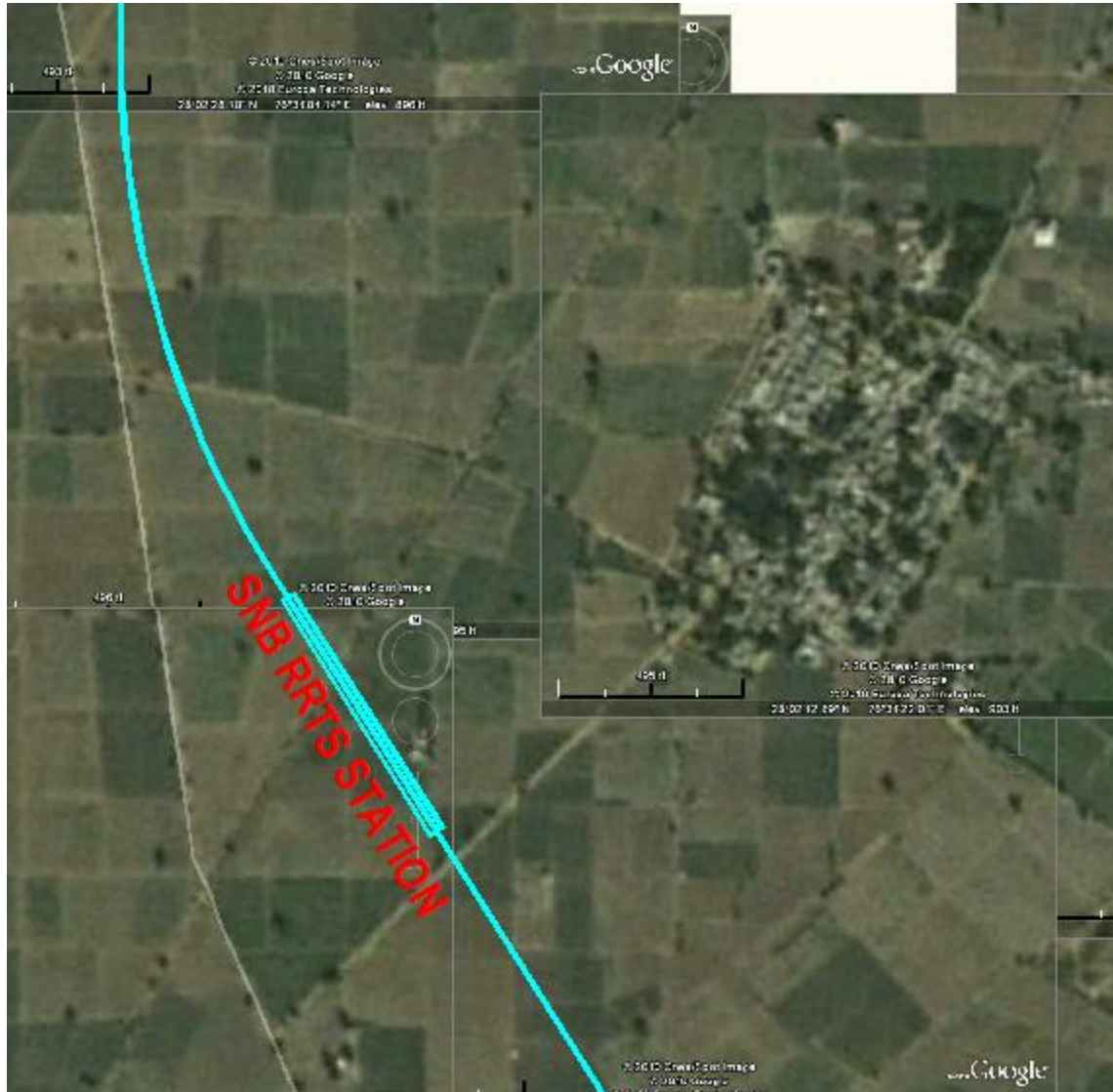


Bawal RRTS Station – Elevated

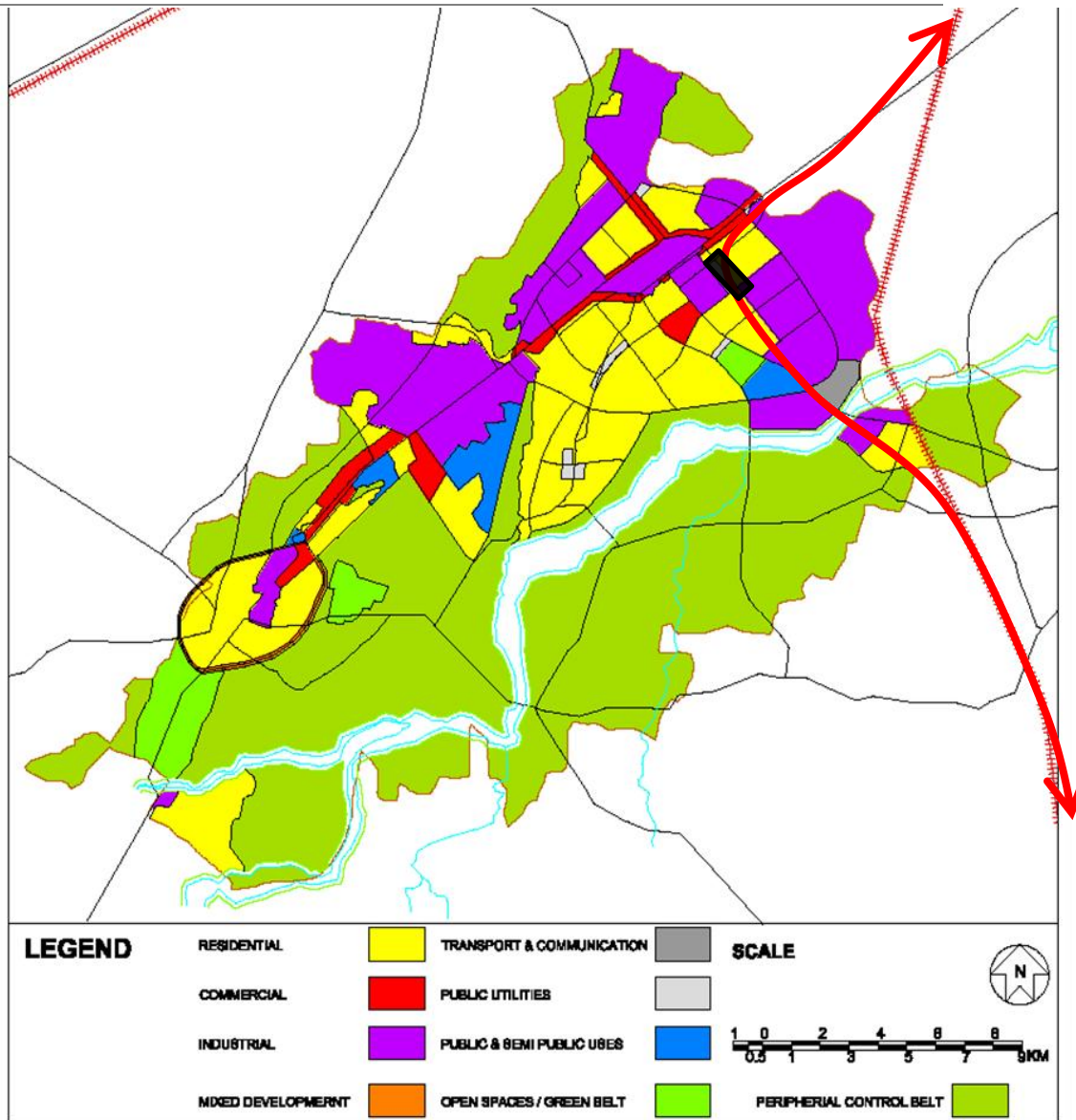
Master Plan of Bawal - 2021



SNB RRTS Station – Elevated At Transportation Land Use



SNB RRTS Station – Elevated

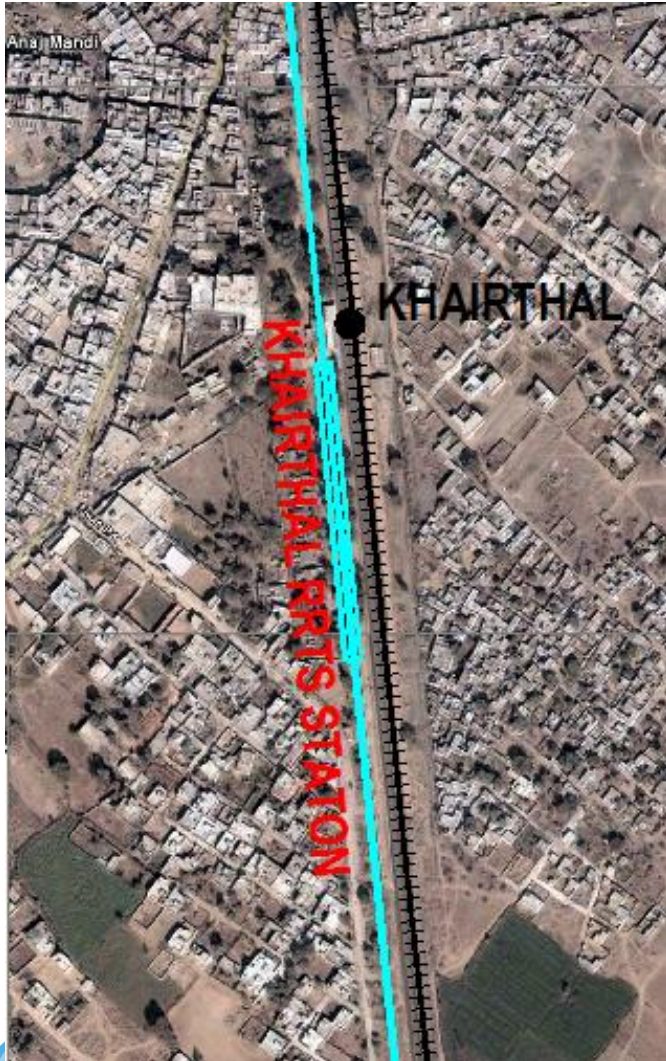


SNB RRTS Station – Elevated At Transportation Land Use



Khairthal RRTS Station – Elevated South of Existing Railway Station

Greenfield Development, Potential for
TOD Development

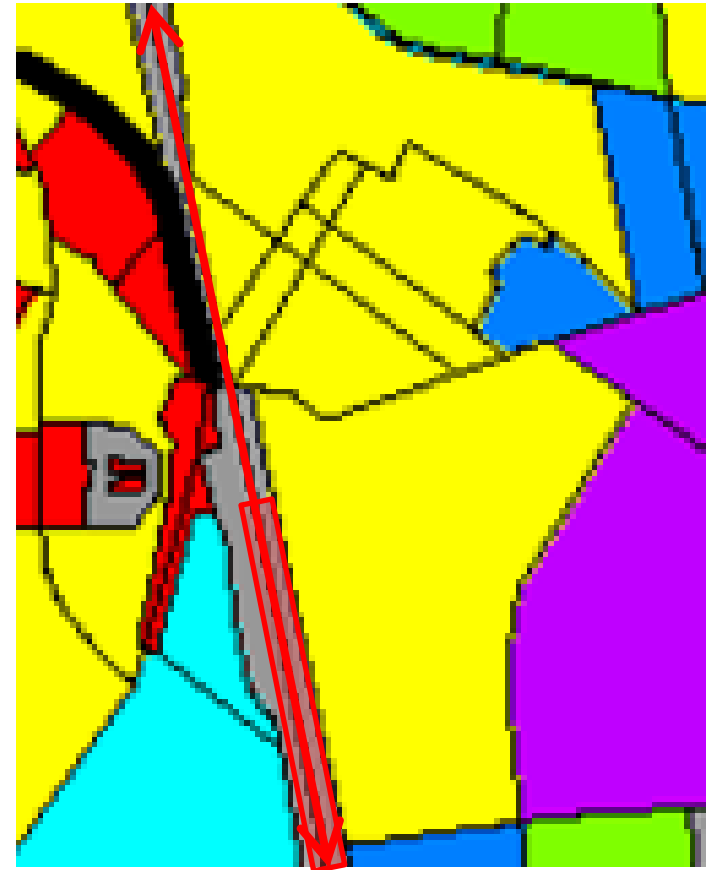
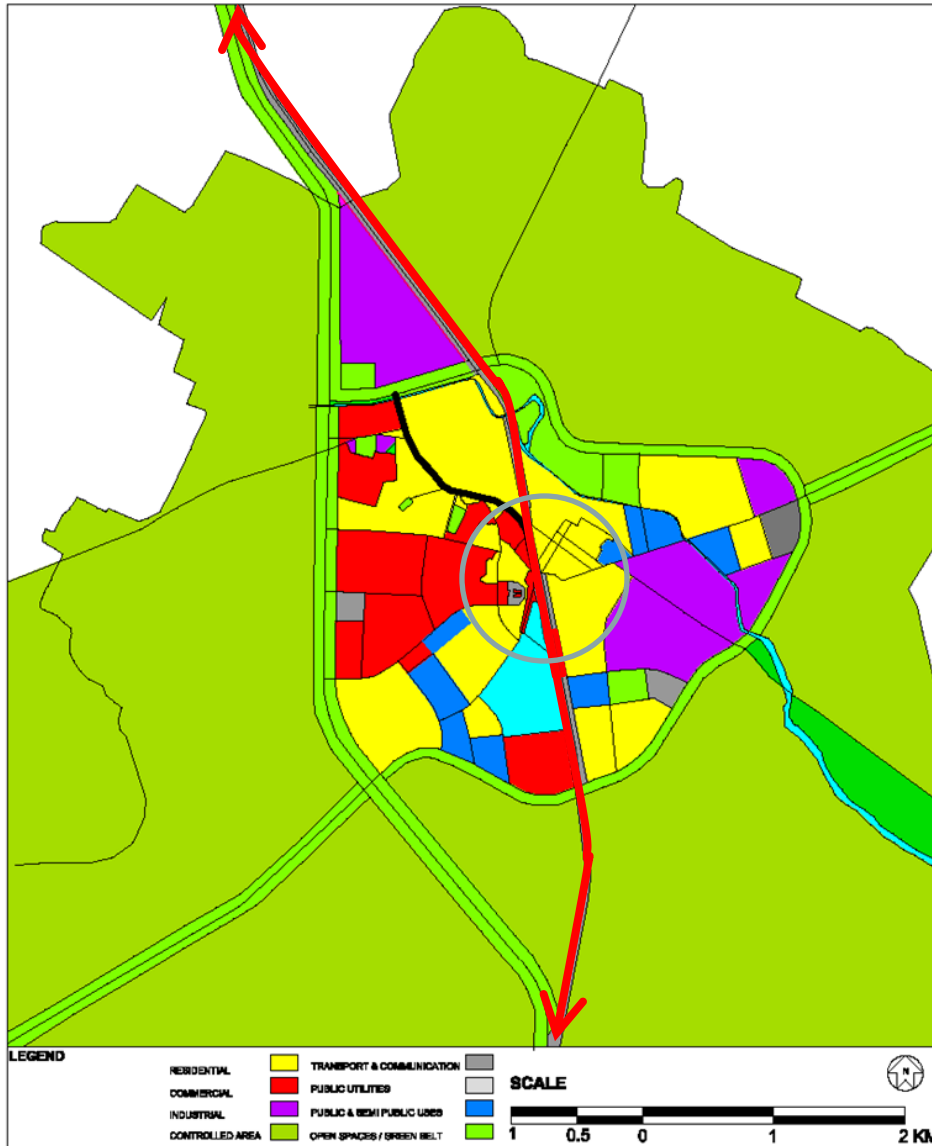


Khairthal Station



Khairthal Settlement

Khairthal RRTS Station – Elevated South of Existing Railway Station – Master Plan Khairthal 2021



Alwar RRTS Station/ Terminal – Elevated/At Grade

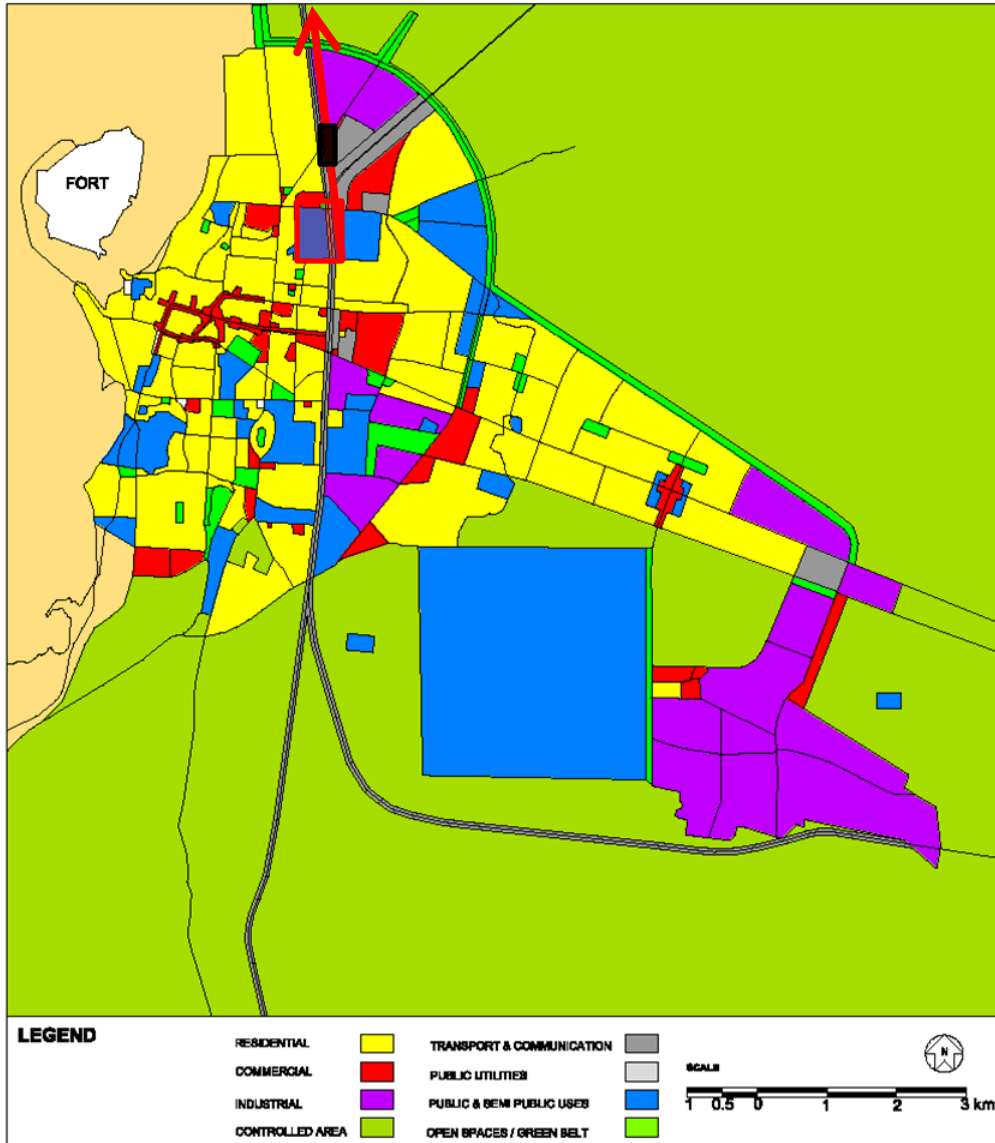


Existing Alwar Station has no space for future expansion



Alwar RRTS Station – Elevated/At Grade

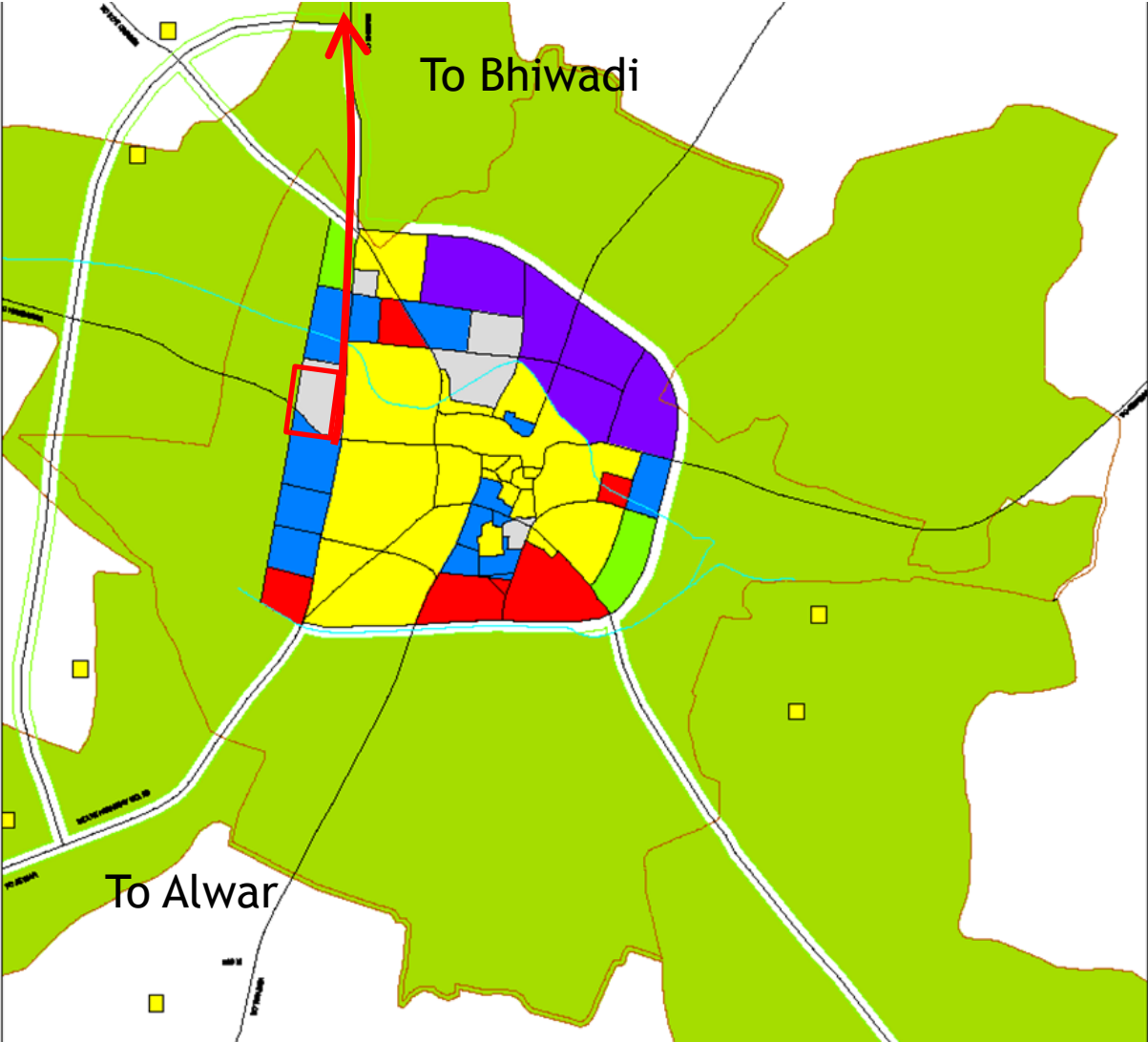
Location of Station and Depot in Master Plan of Alwar - 2021



Vacant Land Available -
Currently under Public - Semi-public Use



Tijara RRTS Station – Elevated/At Grade – On Spur Line at Transportation Land Use



THANK YOU