



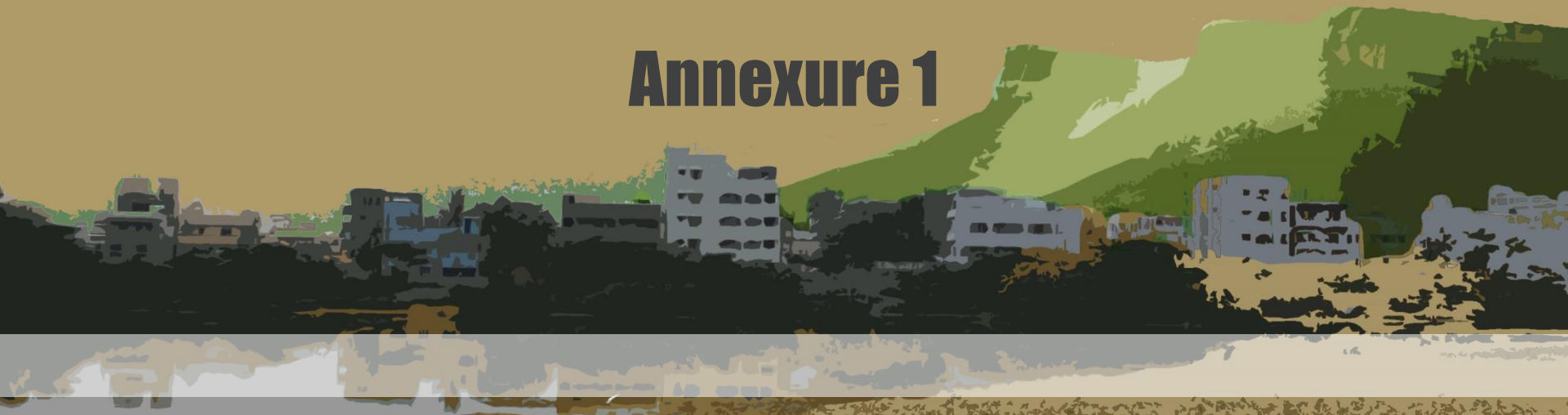
TIRUPATI SMART CITY

TIRUPATI SMART CITY CORPORATION LIMITED (TSCCL)

Existing Site Conditions

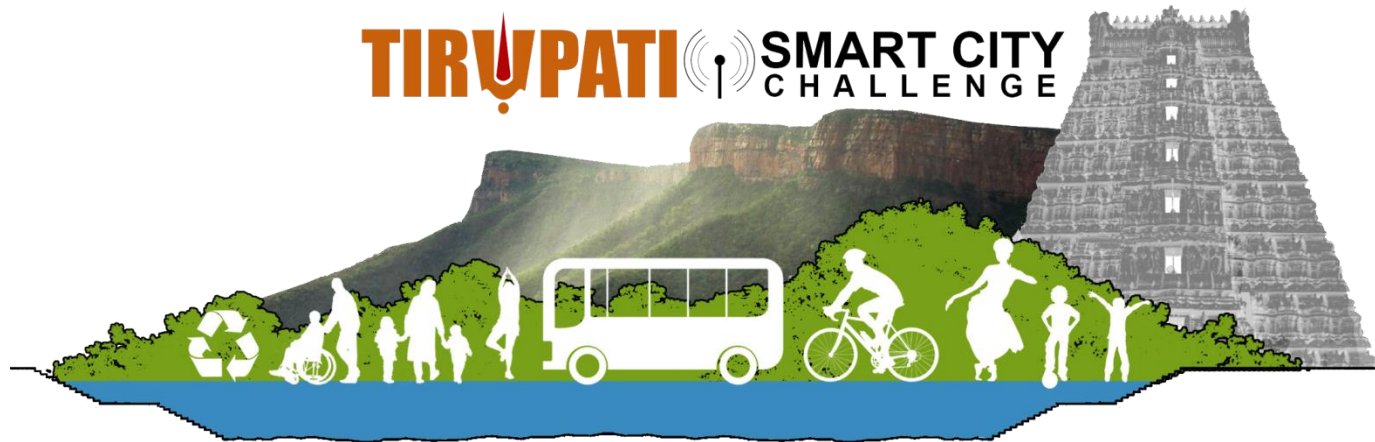
**Modernizing MCT Schools as Smart Campus –
“Smart Classrooms”**

Annexure 1



VISION STATEMENT – Tirupati Smart City

A 21st century **pilgrimage city** that promotes **arts, innovation & sustainable growth**



SUSTAINABILITY CHART

VISION, STRATEGIC BLUEPRINT, GOALS & PROJECTS

sustainability chart for tirupati



CITIZEN ENGAGEMENT

Public Transportation
Traffic Congestion

Spiritual Center Safety on Streets

Education hub

Clean & Green Tirupati

Value Based Learning

Safety on Streets

Pilgrim friendly city

Women Empowerment



SWOT ANALYSIS

Mixed Land-Use traffic congestion

Slum Re-development Initiatives unexplored tourism potential

Natural Heritage prone to flooding

peripheral growth

Religious Center weak public transport system

Best Heritage City for 2012 degrading air quality

Art, Dance, Literature & Culinary Institutions

Health & Educational Hub absence of quality pedestrian environment

Social Sector Stewardship

Model Pilgrim City pressure on infrastructure due to high floating population

Renewable Resources



CITY PROFILE

Total Road Network 225 kms

200 CCTV cameras at 39 locations

NMT share 33% SWM services 60%

Coverage of Sewrage Network 37.6%

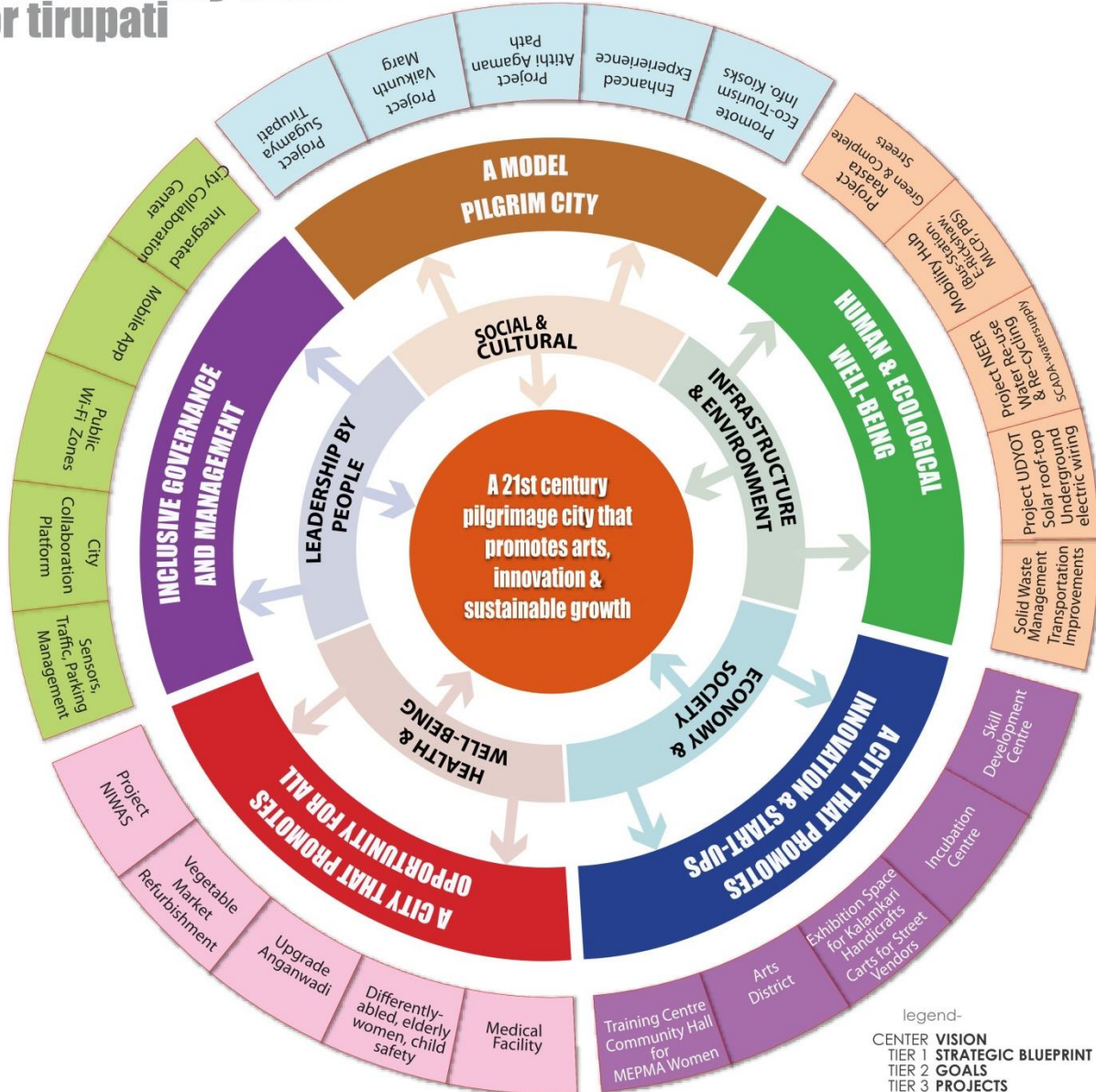
21 lakh pilgrims per month

475 buses carry 40,000 pilgrims daily to Tirumala

Coverage of Water Supply Connections 70.87%

100% coverage of power supply

Road Network with Footpaths 13%



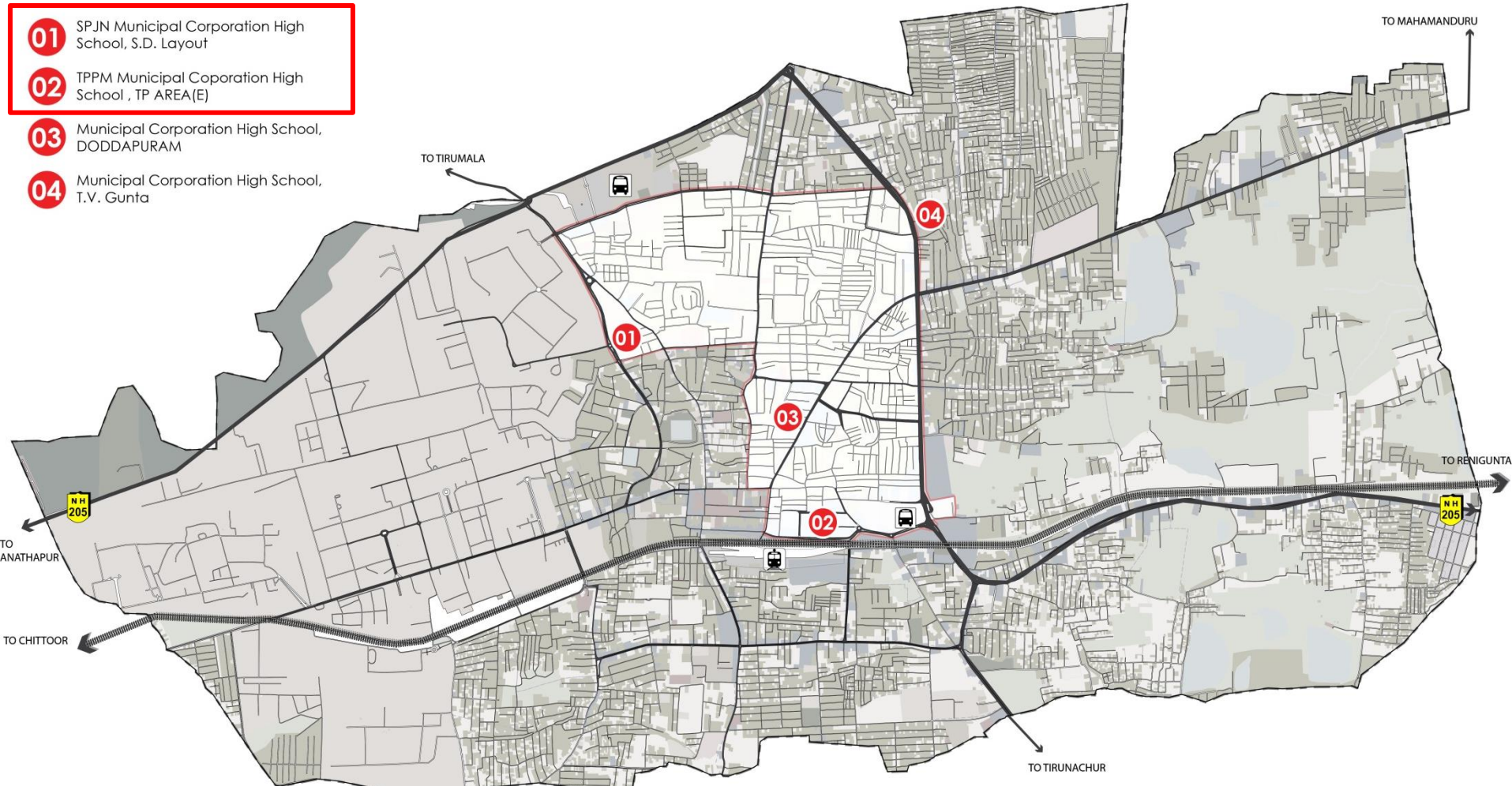
Legend-
 CENTER VISION
 TIER 1 STRATEGIC BLUEPRINT
 TIER 2 GOALS
 TIER 3 PROJECTS

Location of 4 Schools in Context of MCT Boundary

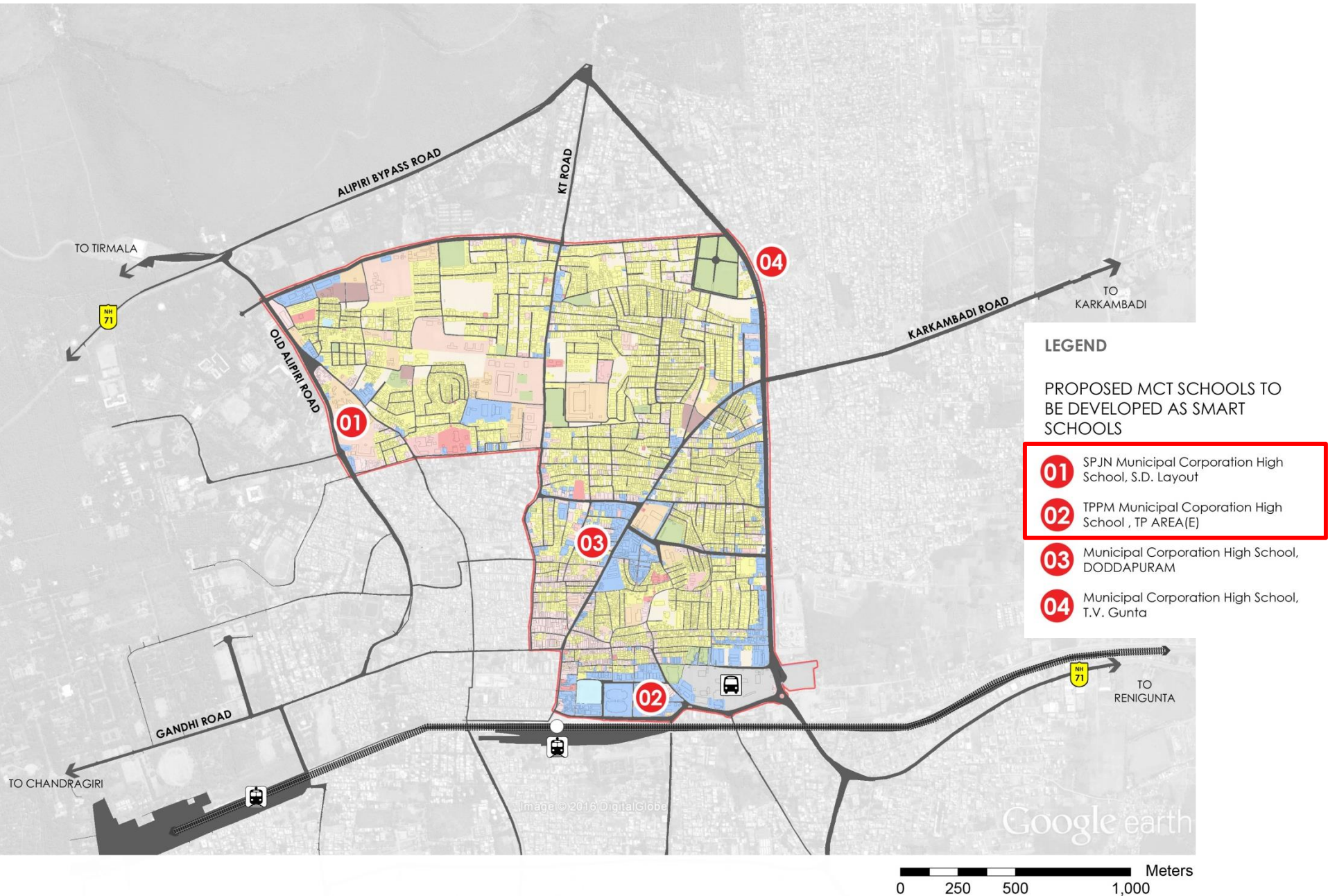
LEGEND

PROPOSED MCT SCHOOLS TO
BE DEVELOPED AS SMART
SCHOOLS

- 01** SPJN Municipal Corporation High School, S.D. Layout
- 02** TPPM Municipal Corporation High School, TP AREA(E)
- 03** Municipal Corporation High School, DODDAPURAM
- 04** Municipal Corporation High School, T.V. Gunta



Location of 4 Schools in Context of ABD Boundary



Vision & Objectives for Smart Classrooms



DIGITAL CLASSROOMS



EASE OF UNDERSTANDING THROUGH TECHNOLOGY



CAPACITY BUILDING



INTERACTIVE LEARNING -TEACHING-LEARNING

BENEFITS



STUDENT CENTERED



INTERACTIVE



FLEXIBILITY



ACCESS TO LARGE
KNOWLEDGE BASE



SHARING OF RESOURCES



BETTER OPPORTUNITY



COST EFFECTIVE

02

Field Investigation & Analysis



1. FIELD INVESTIGATION & ANALYSIS

1.1. SPJN Municipal corporation High school, S.D.Layout

SPJNM high school is located in the TTC (ABD) with student strength of 701 students and teaching staff of 25. It is located in the Ward No 37 and is one of the oldest high schools of the city. The school shares boundary with municipal ground which is about 5 acres size.

General Information	
Name	SPJN Municipal corporation High school
Classification	High School
Site Area	3 acres
Open Space	8 Acres (abutting municipal ground)
No of Students	701
Boys & Girls	Boys: 500 ; Girls: 201
No of Faculty	25
No of classrooms	Classrooms: 18; others: 6

Table 1 : General information-SPJNM High School; Source: MCT & AECOM field survey

Digital Education in the school

There is a one digital classroom installed recently as part of the MCT initiative- one projector and a digital screen along with the internet connection. The digital classroom accommodates about 100 students. The school has one computer lab. There are about 15 computers in the lab and there is no computer faculty in the school.

Digital Education	
Computer lab	Yes
No of computers	15
Student computer ratio	46:1
Computer faculty	No
Digital classroom	Yes
Capacity	100
Components	Projector & Digital screen
Internet	Yes (BSNL)

Table 2 : Digital Education information-SPJNM High School; Source: AECOM field survey



Figure 1-1 : School campus, computer lab & Digital classroom-SPJNM High School; Source: AECOM

1.2. TPPM Municipal corporation High school, TP Area (E)

TPPM high school is located towards Old core area near the railway station road, with student strength of 138 students and teaching staff of 9. It is located in Ward No 26 and is one of the oldest high schools of the city. The school is operating in a 0.61 acre plot with one existing constructed block.

General Information	Name :	TPM Municipal corporation High school
	Classification	High School
	Site Area	0.61 acres
	Open Space	0.12 Acres
	No of Students	138
	Boys & Girls	Boys: 83 ; Girls: 55
	No of Faculty	09
	No of classrooms	Classrooms: 5; others: 5

Table 3 : General information-TPPM High School; Source: MCT & AECOM field survey

Digital Education in the school

The school has one computer lab located on the 1st floor of the block which is not under use. There are about 14 computers in the lab and there is no computer faculty in the school.

Digital Education	Computer lab	Yes
	No of computers	10
	Student computer ratio	14:1
	Computer faculty	No
	Digital classroom	No
	Capacity	-
	Components	-
	Internet	No

Table 4 : Digital Education information-TPPM High School; Source: AECOM field survey



Figure 1-2 : School campus, computer lab -TPPM High School; Source: AECOM

1.3. Municipal corporation High school, Doddapuram

MC Doddapuram high school is located near the municipal corporation office, with student strength of 156 students and teaching staff of 9. It is located in Ward No 27. The school is operating in a 0.25 Acre plot with in a G+1 structure building.

General Information	Name :	Municipal corporation High school, Doddapuram
	Classification	High School
	Site Area	0.25 acres
	Open Space	0.12 Acres
	No of Students	156
	Boys & Girls	Boys: 77 ; Girls: 79
	No of Faculty	09
	No of classrooms	Classrooms: 5; others: 5

Table 5 : General information-MCHS Doddapuram High School; Source: MCT & AECOM field survey

Digital Education in the school

The school doesn't have computer lab or any other digital infrastructure.

Digital Education	Computer lab	No
	No of computers	-
	Student computer ratio	-
	Computer faculty	No
	Digital classroom	No
	Capacity	-
	Components	-
	Internet	No

Table 6 : Digital Education information-MCHS Doddapuram High School; Source: AECOM field survey



Figure 1-3 : School campus, computer lab –MCHS Doddapuram High School; Source: AECOM

1.4. Municipal corporation High school, T.V.Gunta

T.V.gunta high school is located towards east side just abutting to the ABD boundary, with student strength of 318 students and teaching staff of 9. It is located in Ward No 45. The school is operating in a 0.6 Acre plot with 100 sqm open space in two G+1 structure buildings. The ground floor is occupied by the primary school whereas the high school is located on the first floor.

General Information	Name	Municipal corporation High school
	Classification	High School
	Site Area	600 sqm
	Open Space	100 sqm
	No of Students	318
	Boys & Girls	Boys: 160 ; Girls: 158
	No of Faculty	9
	No of classrooms	Classrooms: 6 others: 2

Table 7 : General information-TV Gunta High School; Source: MCT & AECOM field survey

Digital Education in the school

The school has one computer lab which is shared with the faculty room. There are about 10 computers in the room but these are not in use and are poorly maintained.

Digital Education	Computer lab	Yes (Shared room with faculty room)
	No of computers	10
	Student computer ratio	32:1

Computer faculty	No
Digital classroom	No
Capacity	-
Components	-
Internet	-

Table 8 : Digital Education information-TV Gunta High School; Source: AECOM field survey



Figure 1-4 : School campus, computer lab –TV gunta High School; Source: AECOM

1.5. Issues and recommendations

1.5.1. Issues

These are the following issues observed in all the schools:

- Existing computer lab infrastructure is very poor in all schools.
- There is no dedicated faculty for imparting computer education.
- Ill-equipped staff and absence of any training programs to train faculty in using digital modes of teaching.
- The available space for Digital Classrooms is very less in two schools.
- Lack of furniture for seating and storage.
- There is no internet connection in three schools
- Absence of library/reading rooms
- No health programs presently being run in any school

1.5.2. Recommendations

These are the following recommendations:

- Introducing a Robust and Flexible digital solution in classrooms, which requires less maintenance and can be installed in a limited space
- Capacity building programs and training for all staff members to familiarize them with Digital Classroom interface and teach them to use it.
- Robust internet connection and power back-up required in all schools