



TheCityFix™
Learn

WEBINAR

Enabling Safe Commutes for School Children: Case of Rohtak, Haryana

Tuesday June 25th | 3:00 – 4:00 PM (IST)

Vaibhav Kush - Project Associate, WRI India



Child-friendly City?

“A Good City is one in which children can grow and develop to the extent of their powers; where they can build their confidence and become actively engaged in the world; yet be autonomous and capable of managing their own affairs.”

– *Kevin Lynch*

“The ideal notion of child-friendliness guides cities to envision and develop sustainable environments where young citizens can live, grow up, develop, socialise and express themselves in the fundamental fulfilment of their rights.”

– *Arab Gulf Fund for Development (AGFUND)*

“...it is a city, town or community in which the voices, needs, priorities and rights of children are an integral part of public policies, programmes and decisions.”

– *UNICEF Child Friendly Cities Initiative*

Recreational
Environment

Health &
wellbeing

Protection
from abuse /
exploitation

Access to
(quality)
education

Safe, Secure
& 'Green'
Spaces

ROAD SAFETY SCENARIO



1.35 million
people die every year
due to road traffic
crashes

8th
leading cause of
death for all age
groups



CHILD ROAD SAFETY SCENARIO



81,760

**children aged between
5 and 14 die every year**

1st

**cause of death for
persons aged 5 - 14**



ROAD SAFETY SCENARIO



148,000

**people die every year
due to road traffic
crashes**

1st

**cause of
accidental death
for all ages**



CHILD ROAD SAFETY SCENARIO



15,600

**children below 18 years
died due to road traffic
crash**

*(NCRB Accidental Deaths & Suicides in India
2015)*

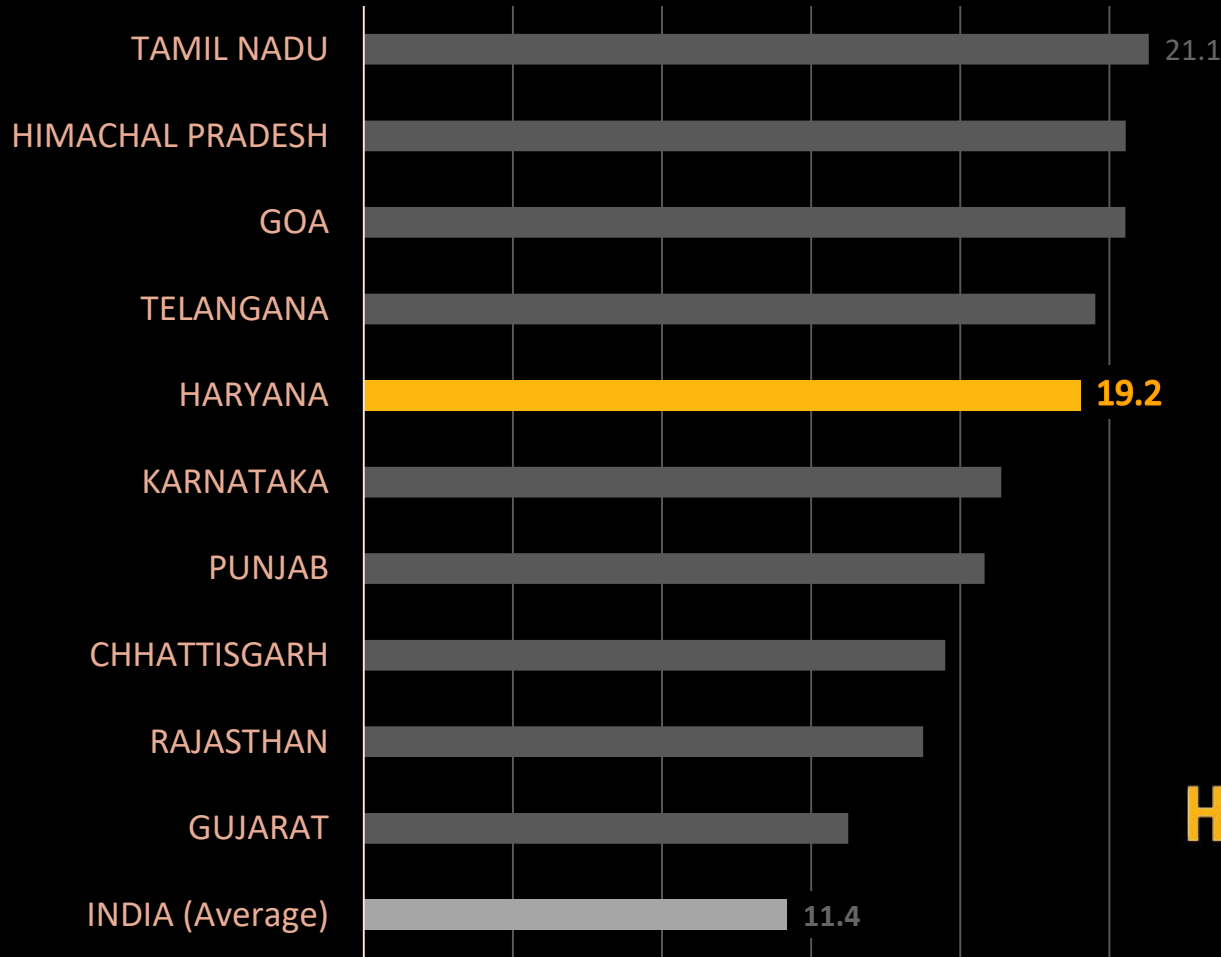


9,400

**children below 18 years
died due to road traffic
crash**

(Nissan & SaveLIFE Foundation 2017)

HARYANA



Road crash fatalities per 100,000 population

5,000

Road
Traffic
Fatalities

5%

In vicinity
of schools

HARYANA
VISION
ZERO

NO MORE
TRAFFIC DEATHS.

BOTNAR

Child Road Safety Challenge



The Safer Commute for School Children – Rohtak, Haryana

Project Partners:

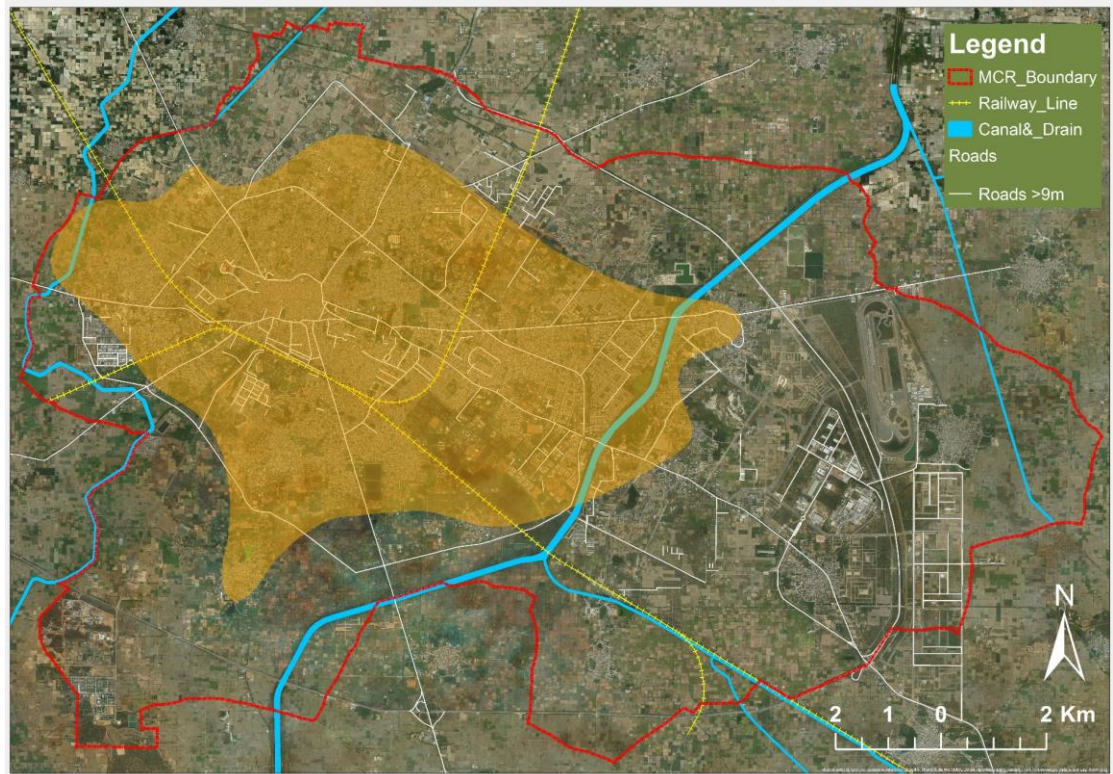


WRI INDIA
— ROSS CENTER



NASSCOM[®]
FOUNDATION

ROHTAK



Estimated population in 2016 = 400,000

Municipal Area = 115 km²

Population below 18 years of age = 36%

About 78,000 students enrolled in schools

In 2016, 521 road crashes led to 241 deaths in District Rohtak

As per Police FIRs - 123 road crashes led to 137 deaths in city in 2016

PROJECT VISION

To transform Rohtak into a city where children can travel safely on the road, either by foot, cycle or transit, and irrespective of whether they are accompanied by an adult or on their own

OBJECTIVES



1. Reduce crash risk around 5 schools



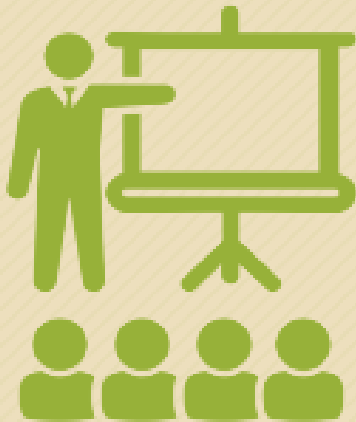
2. Reduce crash risk for children in Rohtak

STRATEGIES



WORKPLAN

Objective 2: To influence a reduction in the crash risk for children across Rohtak by the end of two years



Capacity building of
city officials

Strategy 2.1



Workshops for Engineers



Workshops for
Traffic Police

Strategy 2.1 – Capacity Building of City Officials

4

workshops

6

departments

153

participants



WORKPLAN



Workshop with school children, community etc.



Community campaigns through Raahgiri



Media outreach



Influence community on prioritizing child road safety

Strategy 2.2

Activity 2.2.1 – Workshops with School Children, community, etc.

2 workshops
350 participants



Activity 2.2.2 – Community Campaigns through Raahgiri



Awareness campaigns during **Raahgiri Days** and on special occasions like **World Remembrance Day, Road Safety Week, etc.**



Activity 2.2.3 – Media Coverage



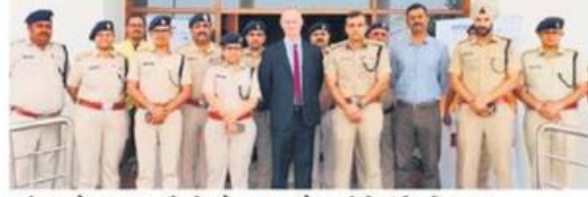
Rohtak selected for school kids' safety project

ROHTAK, APRIL 26
Rohtak has been selected for the 'Safer commute for schoolchildren' project by Swiss Foundation Botnar as part of its Child Road Safety Challenge. The project, convened by the Indian chapter of the World Resources Institute (WRI), in partnership with Rohtak police, MC and NASSCOM Foundation, is slated to kick off from May 1.

Rohtak SP Pankaj Nain disclosed here on Thursday that Rohtak was among the 12 cities across the world and two from India which have been selected for the project.

"The Botnar Foundation will provide a financial assistance of ₹2 crore over a period of two years to WRI India for providing evidence-based knowledge and technical support, conducting training for the municipal officers and traffic police personnel and creating awareness. — TNS

रोड पुलिसिंग वर्कशॉप में जुटे पांच जिलों के एसपी, एसपी व डीएसपी



वर्कशाप के बाद अपनी टीम के साथ खड़े आईजी संदीप खिरवार।

रोहतक | बॉटनार संस्था की ओर से गुरुवार को बेहतर यातायात प्रबंधन व रोड इन्फ्रास्ट्रक्चर विषय पर सफ़्टि ह्युम में रोड पुलिसिंग वर्कशाप लगाई गई। वर्कशाप में आईजी संदीप खिरवार ने शिरकत की। इस कार्यशाला में रोहतक, सोनीपत, झज्जर, चरखी दादरी और भिवानी के अंतर्गत 5 जिलों के पुलिस अधीक्षक, अतिरिक्त एसपी और डीएसपी (टैफ़िक) ने

हिस्सा लिया। कार्यशाला का उद्देश्य मुख्य सड़क सुरक्षा सिद्धांतों, नेतृत्व सिद्धांतों, सुरक्षित प्रणाली मॉडल, अशाखादी प्रवर्तन के लिए रणनीतिक योजना, प्रभावी डेटा प्रबंधन के महत्व, बेहतर सामुदायिक समर्थन के लिए प्रक्रियात्मक निष्पक्षता, समकालीन प्रवर्तन का उपयोग करने में रोहतक टैफ़िक पुलिस लीडरशिप टीम के बारे में बताना था।

RUSH HOUR AMIT BHATT Rethink road design, enforce rules to make roads safer for children

KILLER ROADS 1.5 lakh people lose their lives on India's roads — the highest number in the world. What is even more worrisome is the fact that more than 15,000 children are killed every year on Indian roads.

WHILE THE COUNTRY IS STILL STRUGGLING TO ENFORCE SAFETY IN GENERAL, IT IS HEART-BREAKING TO SEE THAT THE CITY OF ROHTAK HAS PARTNERS AS ASSOCIATED TO LOOK AT THE ROAD SAFETY OF CHILDREN THROUGH THE SAFE COMMUNITY DESIGN PROGRAM.

CHILDREN'S SAFETY The city of Rohtak has a population of 1.5 lakh people, with a significant portion being children. The city is known for its educational institutions and is a hub for students from across the country. The city's roads are heavily used by children, making it a high-risk area for road accidents.

SAFER COMMUNITY DESIGN The city of Rohtak has been selected for the 'Safer Commune Design' program, which aims to improve road safety for children through a series of measures. These include the installation of speed breakers, the creation of pedestrian crossings, and the implementation of traffic rules that are specifically designed to protect children.

सालभर का सफर | 12 शहरों की टोलगांव पर विचार, चारों ओर से आ रहे सुरक्षित, कर्ना की तुलना की वजाह्त सड़क जालों के साथ, सड़क से बचने के लिए

विद्यार्थियों का सफर होगा सुरक्षित, सिटिजलजैड बॉटनार फाउंडेशन मुक्त करेगा प्रोजेक्ट

बच्चों का सफर होगा सुरक्षित, बॉटनार का ट्रायल शुरू

मई 2018 में शहर में शुरू किया गया काइल्ड रोड सेफ्टी प्रोजेक्ट, दासल सफल होने पर होगा रखाई और पर लागू

बच्चों का सफर होगा सुरक्षित, बॉटनार का ट्रायल शुरू



बॉटनार फाउंडेशन द्वारा शुरू किया गया 'साफर कम्युनिटी डिजाइन' प्रोजेक्ट का हिस्सा है। इस प्रोजेक्ट के तहत बच्चों को सड़क सुरक्षा के बारे में शिक्षित किया जा रहा है। बच्चों को सड़क सुरक्षा के बारे में शिक्षित करने के लिए बॉटनार फाउंडेशन ने एक विशेष कार्यक्रम शुरू किया है। इस कार्यक्रम में बच्चों को सड़क सुरक्षा के बारे में शिक्षित करने के लिए बॉटनार फाउंडेशन ने एक विशेष कार्यक्रम शुरू किया है।

चाइल्ड रोड सेफ्टी प्रोजेक्ट के तहत रोहतक के सात स्कूलों का चयन

डीसी कार्यालय में पुलिस और प्रशासनिक अधिकारियों के बीच हुई बैठक

रोहतक (ब्यूरो)। डीसी कार्यालय में पुलिस व प्रशासनिक अधिकारियों ने चाइल्ड रोड सेफ्टी प्रोजेक्ट के तहत रोहतक के सात स्कूलों का चयन किया गया। पुलिस व संस्था के अधिकारियों ने इस बैठक में सहभागिता की।



डीसी कार्यालय में पुलिस व अन्य अधिकारियों के साथ बैठक करते डीसी डी. वरा गुन।

चाइल्ड रोड सेफ्टी प्रोजेक्ट के तहत रोहतक के सात स्कूलों का चयन किया गया। पुलिस व संस्था के अधिकारियों ने इस बैठक में सहभागिता की।

बच्चों के सफर को सुरक्षित बनाने के लिए कार्यशाला आज

ग्लोबल रोड सेफ्टी पार्टनरशिप की ओर से आए राजल पावलोस्की लेंगे हिस्सा

अमर उजाला ब्यूरो

रोहतक। हरियाणा सरकार की ओर से रोहतक में शुरू किए गए प्रोजेक्ट बॉटनार सैफर कम्युनिटी डिजाइन के तहत रोहतक के सात स्कूलों का चयन किया गया।



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WORKPLAN

Objective 1: To reduce crash risk of 5 school districts in Rohtak by the end of two years



Develop partnership
with 5 school



Selection of school
districts



Focus group
discussions

Strategy 1.1

WORKPLAN



Activity 1.1.1 - Selection of School Districts

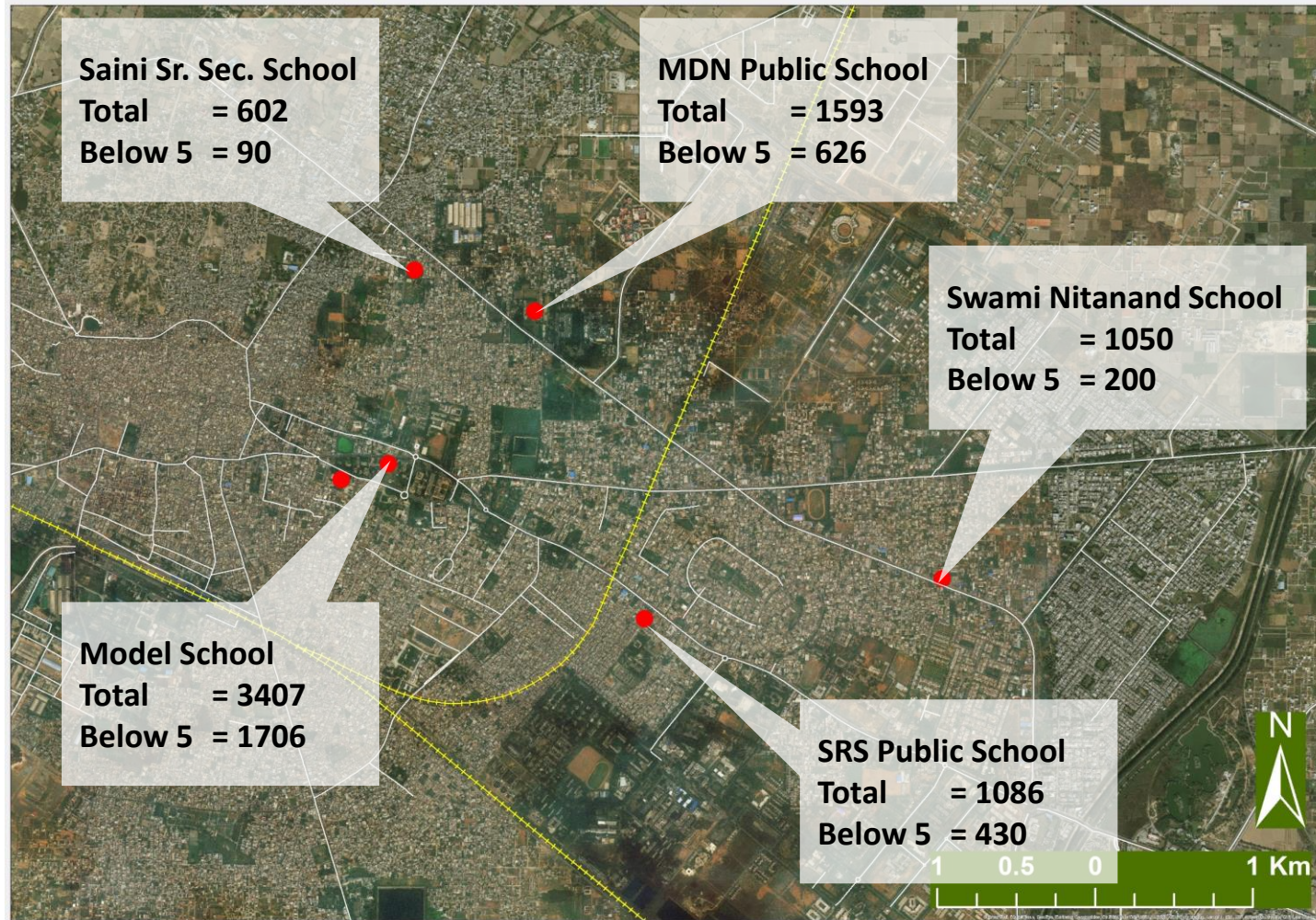
Selection Parameters:

- Type of School – (*Private / Govt. / Aided/ KV / Navodaya / Other*)
- Total Enrollment
- Students below Grade 5
- Students residing within 1 km of school
- ~~Willingness of the schools and their past initiatives around road safety~~
- Proximity to existing blackspots identified by Police / HVZ
- Proximity of school to Railway line

WORKPLAN



Activity 1.1.1 - Selection of School Districts



7738
Total direct
beneficiaries

WORKPLAN

Activity 1.1.2 – Focus Group Discussions



What?

- What does “safety” mean to the project beneficiary?

Who?

- Students
- Caretakers (Parents + Teachers)

WORKPLAN



Activity 1.1.2 – Focus Group Discussions

School Profiling

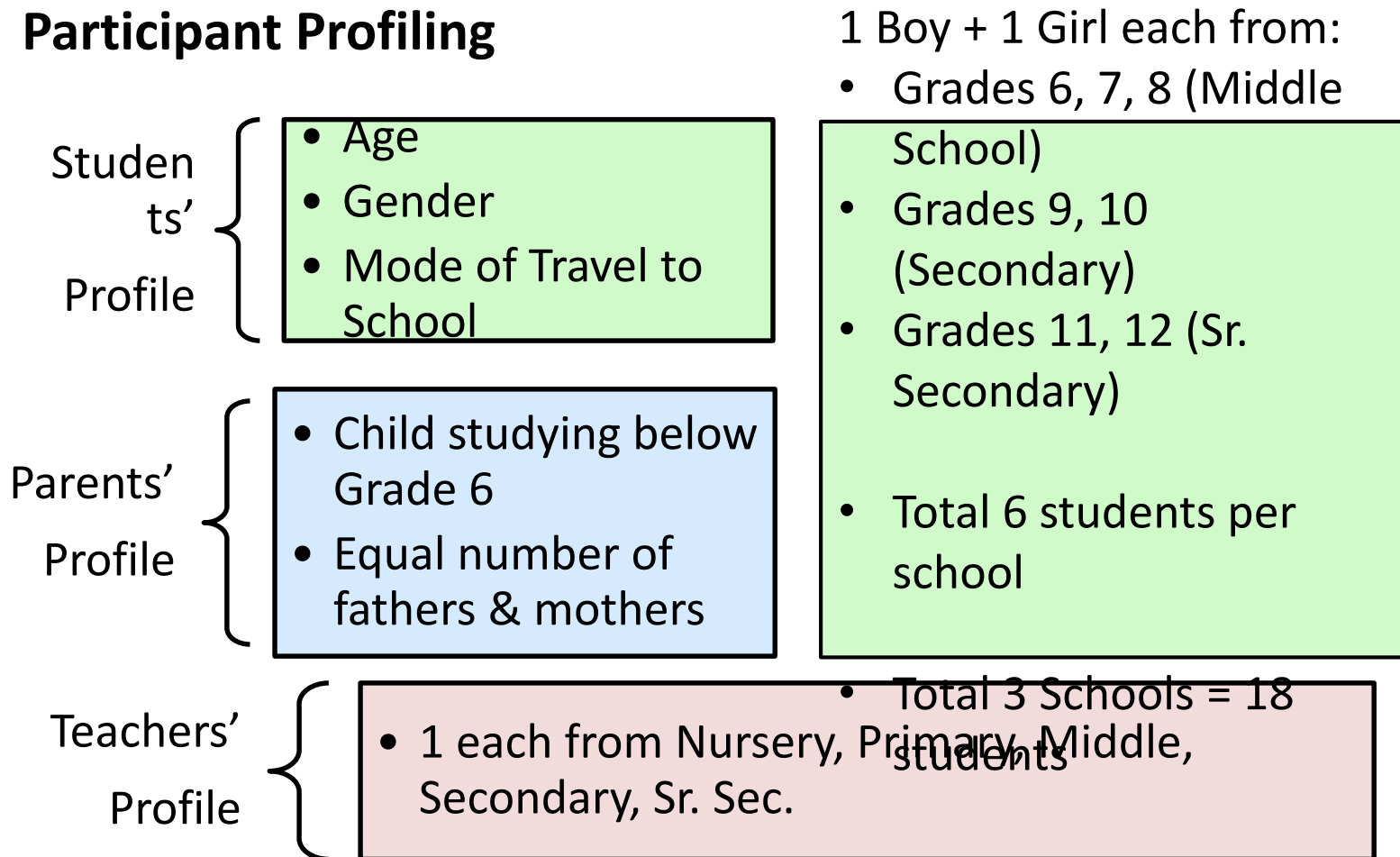
Model School	SRS School	Saini School
<ul style="list-style-type: none">• Private School• Students generally from 'well-off' families	<ul style="list-style-type: none">• Private School• Students from middle-class families	<ul style="list-style-type: none">• Aided School• Students from poor families.
45 minutes per session	3 - 4 Sessions a day	9 Sessions over 3 days

WORKPLAN



Activity 1.1.2 – Focus Group Discussions

Participant Profiling



WORKPLAN



Activity 1.1.2 – Focus Group Discussions

Conduct of the Sessions:

- Ice breaking session
- Consent Forms
- Interactive session
 - How far do you live from School?
 - How do you travel to school?
 - What are the challenges you face when you travel in the city?



WORKPLAN



Activity 1.1.2 – Focus Group Discussions

Analysis

Students	Parents	Teachers					
Perception	Attitude	Behaviour	Lifestyle	Safety	Infrastructure	Education	Enforcement
Fear of other road users	2-Wheelers encroach walking space for driving & parking	Wrong side driving	Fast paced life	Look left-right-left before crossing	Railway Crossing	Awareness programs required	Overcrowding of autorickshaws
Confusion	No regard for rules by	Rash driving by 2-wheelers	Limitation on how much to	Anti-social elements on	Need for footpath & cycle	Need to orient children to	Poor enforcement by traffic

Key Messages Identified:

There is a fear of travelling on roads, especially among children.

It is a general belief that the Traffic Police is responsible for ensuring road safety.

Motor Vehicle drivers in general have poor driving skills and lack road etiquettes.

Infrastructure for walking and cycling is required

Under-age driving is prevalent

Never safe on roads because of others	No respect for other road users by MVs	Driver taking children to school		GPs installed in school buses	Need for footpath & cycle track	Need to educate children in Road safety	enforcement around schools
Traffic police to fix problem	Hit & Run	Children drive on roads			Need for footpath	Awareness programs required	CCTV / Surveillance required
Never safe on roads because of others	No respect for pedestrians & cyclists	Poor behaviour by other road users			Railway Crossing	Students need to be taught traffic rules	CCTV / Surveillance required
	Vehicles & vendors	Road rage and unruly			Inadequate & confusing		

WORKPLAN



Transport data
collection & analysis



Survey of all
students of the 5
selected schools



City-wide crash data
collection for overlay
on identified high risk
areas



Road safety inspection
of high risk areas
defined in focus group
discussions

Assess mobility pattern &
risk profile for school
children

Strategy 1.2

WORKPLAN



Activity 1.2.1 – Transport Data Collection & Analysis

- Mobility Plan / Master Plan
- Vehicle registration data
- Land-use and Road Network
- Location of schools, parks, etc.
- Challenges
 - Primary data surveys in Mobility plans conducted in 2008 – no new surveys conducted till date

Activity 1.2.3 – City-wide crash data collection for overlay on identified high risk areas



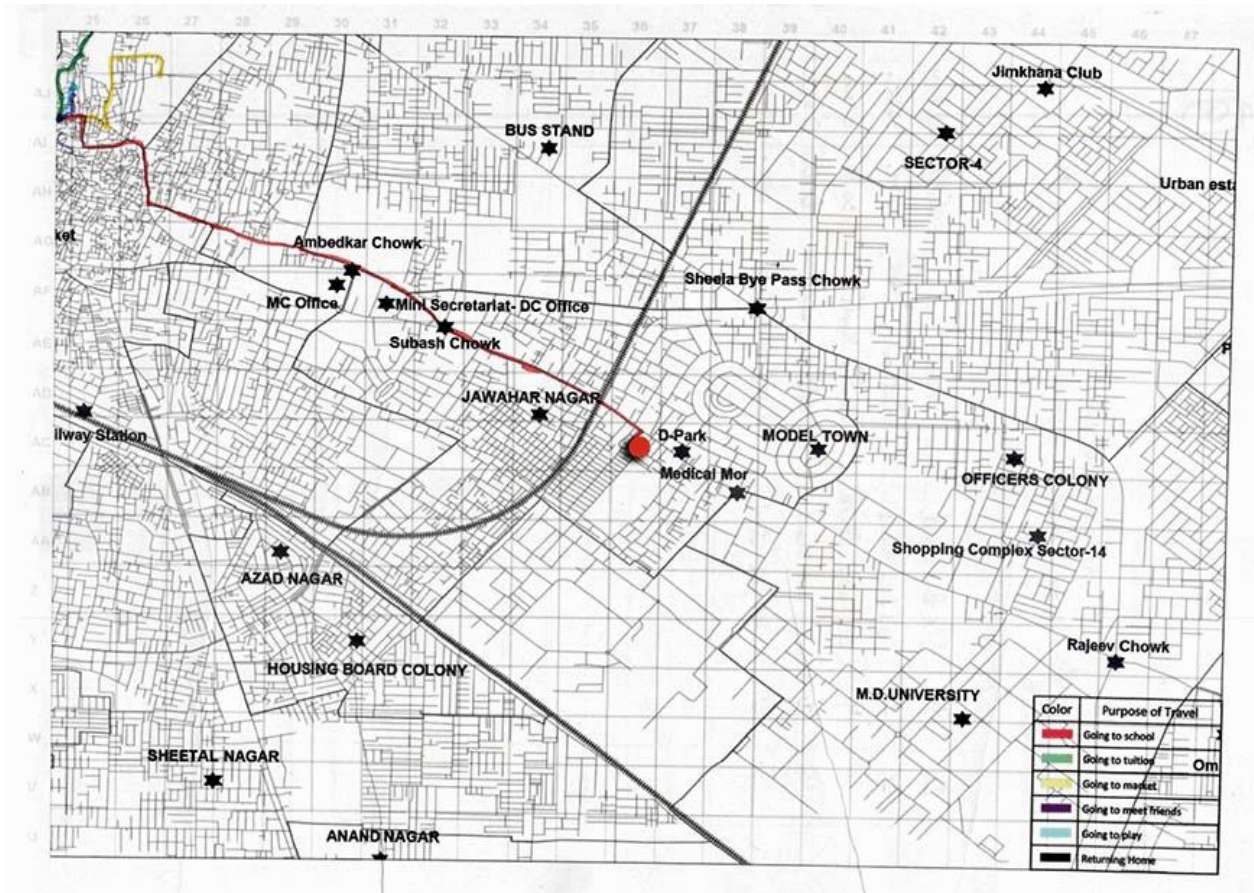
- Crash + Fatality Data
 - From Police
 - From HVZ
- Injury Reporting from Schools
- Challenges
 - Biggest challenge has been **unavailability of child-specific data** – Age not mentioned in FIRs
 - Injury Reporting made mandatory in selected 5 schools – formats shared, but not maintained.

WORKPLAN



Activity 1.2.2 – Survey of all students of the 5 selected schools

Route Mapping



WORKPLAN



Activity 1.2.2 – Survey of all students of the 5 selected schools

Mobility Mapping

- Home /Tuition Zones
 - Grouping colonies on the basis of distance from school
- Mode of Travel to/from School
 - Based on responses received in FGDs, Techniques 1 & 2 and observation
- Destination after school
- Underage Driving

How many of you come to school on **single/shared autorickshaw / E-rickshaw?**

How many of you come to school on a **scooter/bike by yourself?**

How many of you are dropped to school on a **scooter/motorcycle by your parents?**

8	16	24	32	40	48	56	64
7	15	23	31	39	47	55	63
6	14	22	30	38	46	54	62
5	13	21	29	37	45	53	61
4	12	20	28	36	44	52	60
3	11	19	27	35	43	51	59
2	10	18	26	34	42	50	58
1	9	17	25	33	41	49	57

WORKPLAN

Activity 1.2.2 – Survey of all students of the 5 selected schools

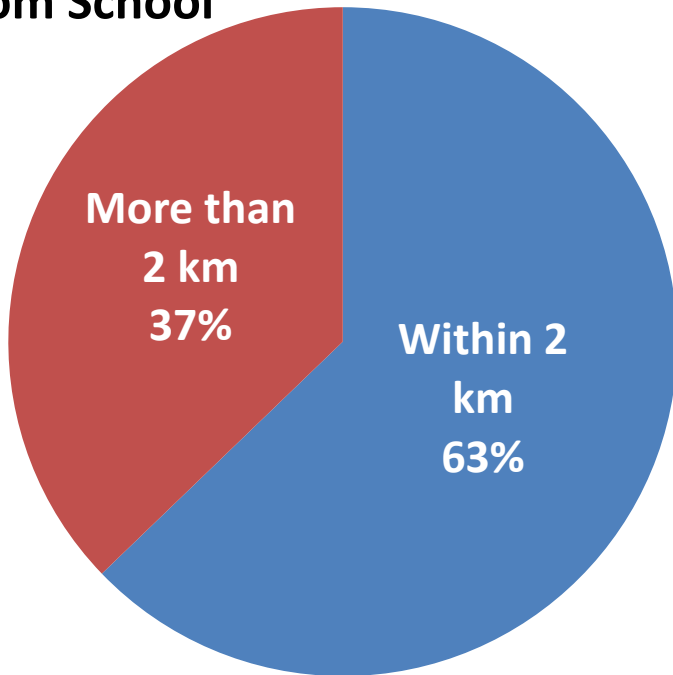


ANALYSIS

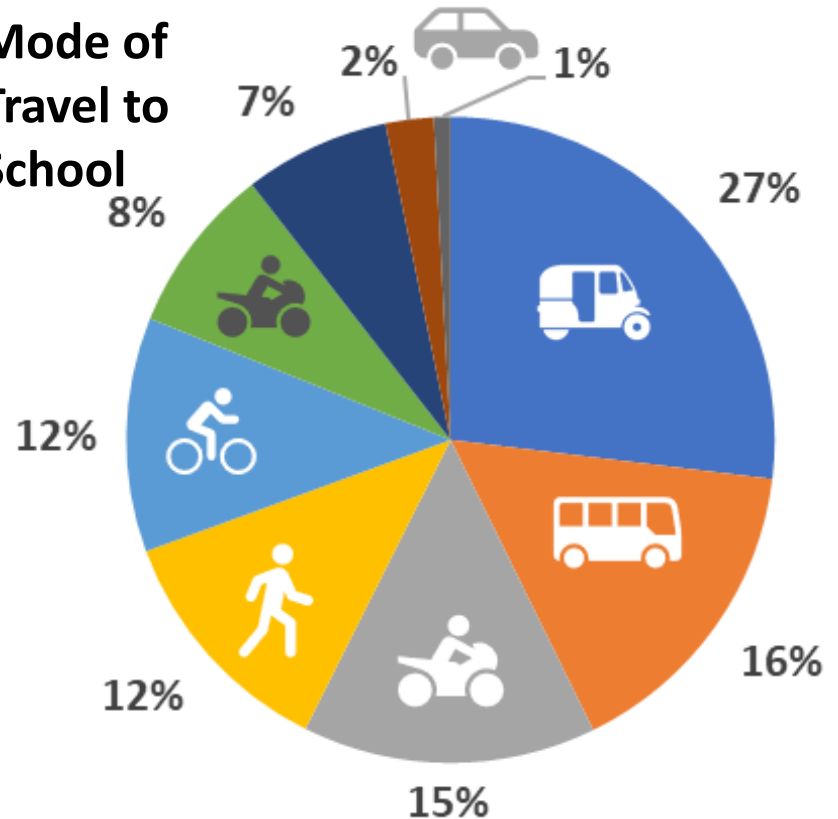
Average Trip Length (for all trip purposes)



Location of Home from School

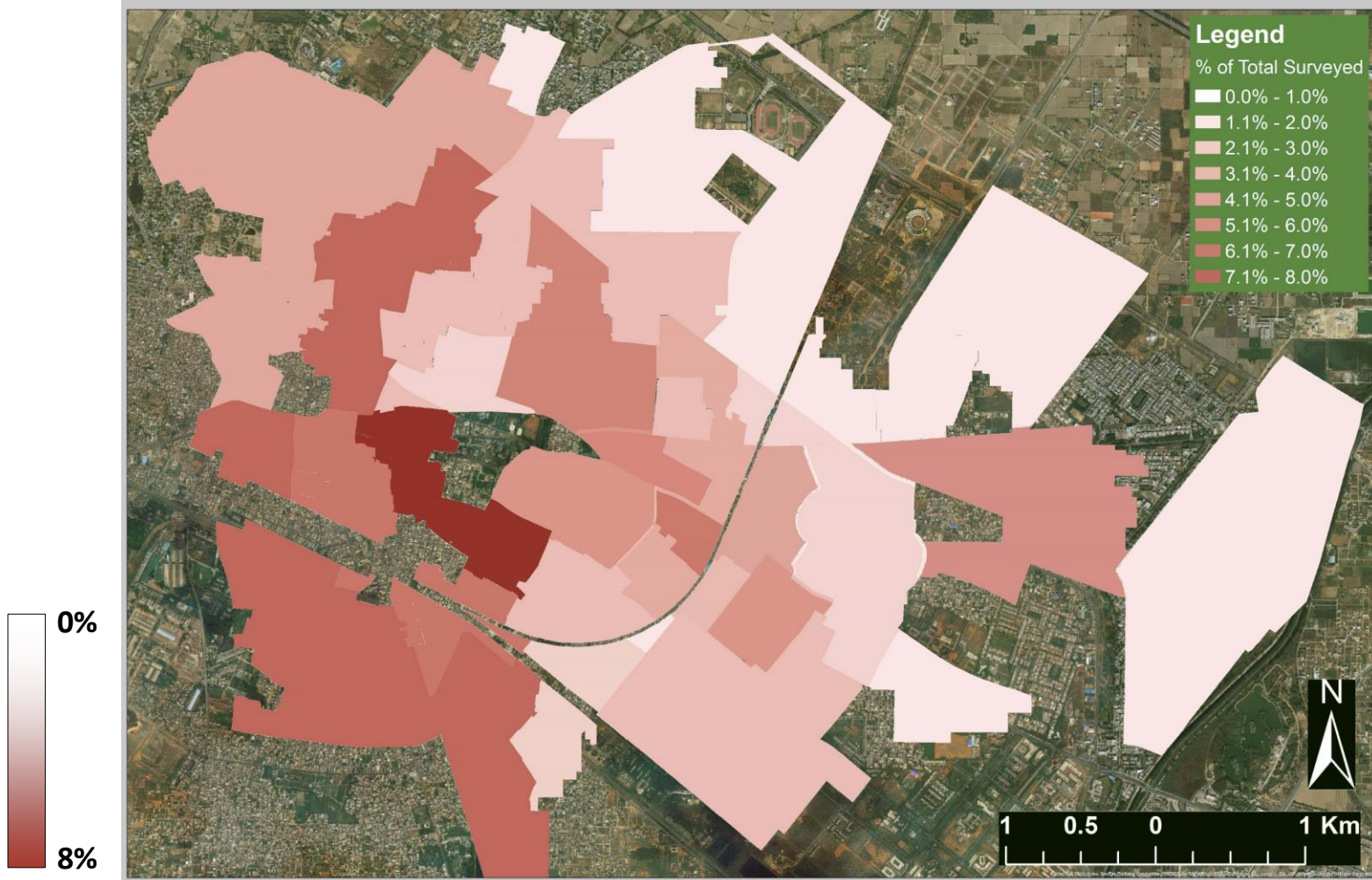


Mode of Travel to School



ANALYSIS

Concentration of Home Zones for students living within 2 kms of their respective schools



ANALYSIS

45%

students said
they drive / ride
vehicles

76%

Students travel
within 2 kms of
their school

75%

students said they
know how to drive /
ride

21%

Students use a
different mode of
travel after school

WORKPLAN



Selection of
priority
locations



Detailed survey of
identified locations



Preparation of
preliminary
designs



Trial of preliminary
designs



Installation of soft
infrastructure



Preparation of
final designs



Permanent
execution



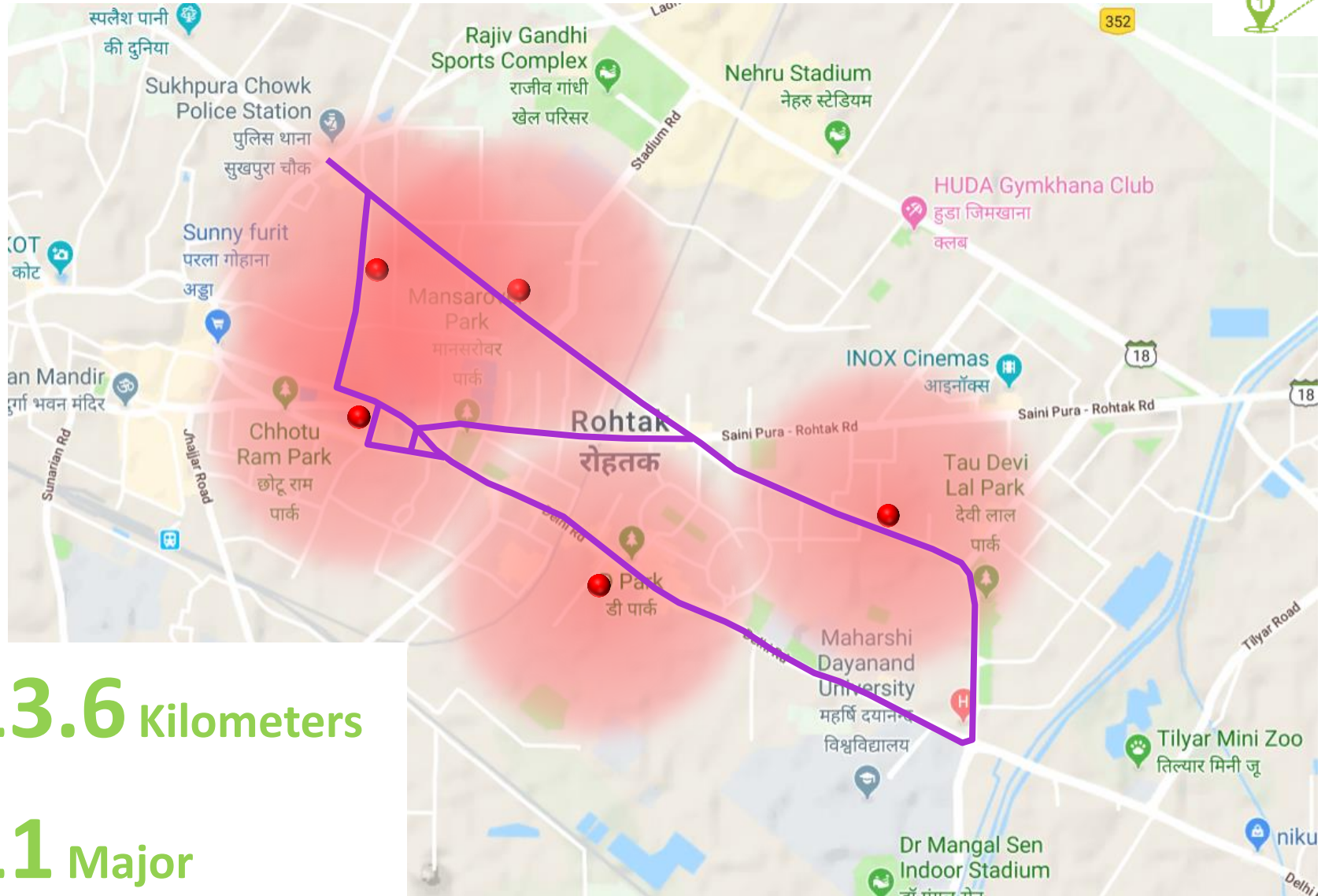
Analysis of
Impact



Improve road infrastructure
& traffic management to
mitigate crash risk

Strategy 1.3

Activity 1.3.1 – Selection of Priority Locations

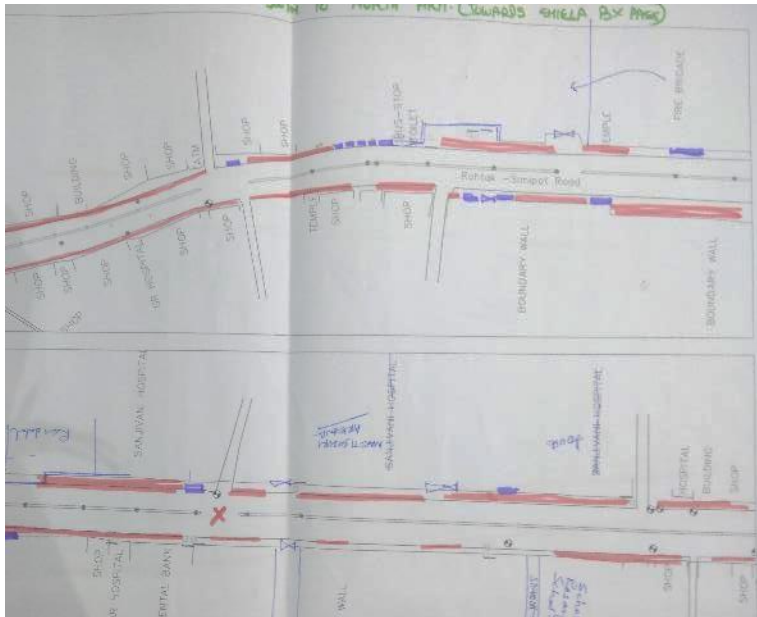


13.6 Kilometers

11 Major Intersections

Activity 1.3.2 – Detailed Survey of Identified Locations

Total station survey, traffic and pedestrian volume counts, speed survey,



Activity 1.3.2 – Detailed Survey of Identified Locations



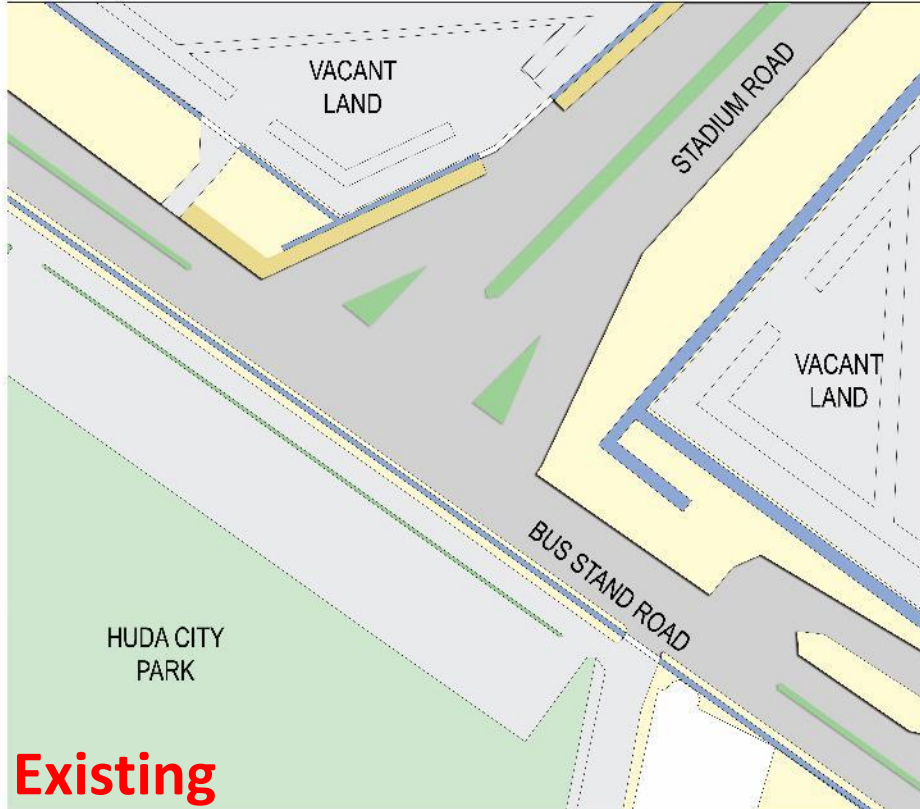
Activity 1.3.3 – Preparation of Preliminary Designs



Activity 1.3.3 – Preparation of Preliminary Designs



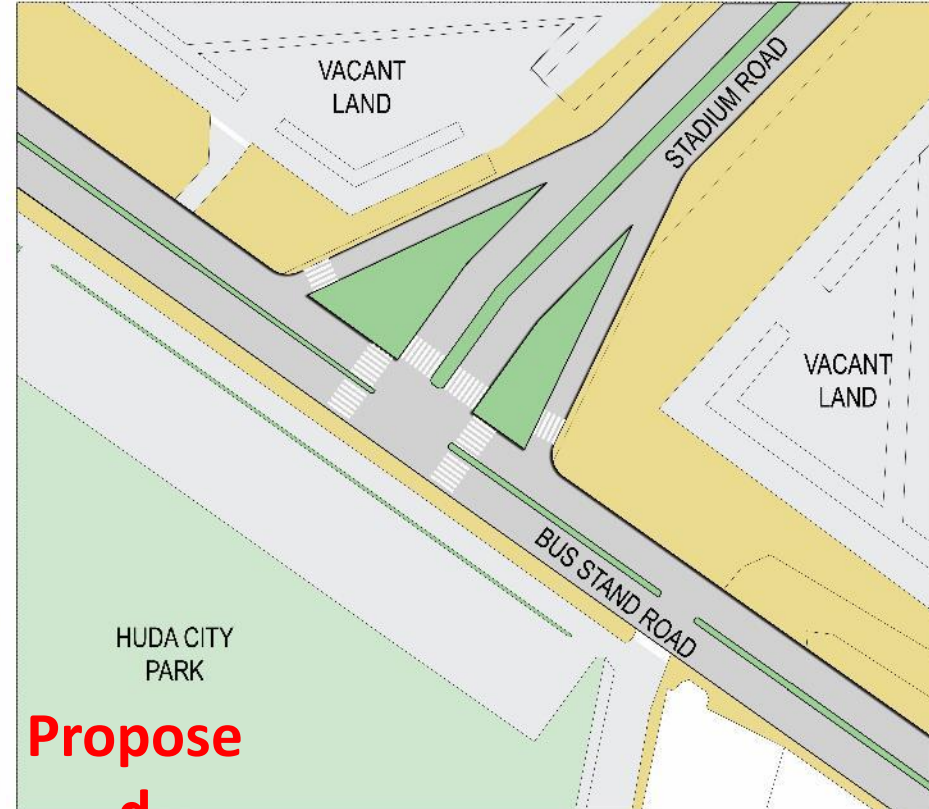
1st Priority Location Identified – 150m from MDN School



Existing

Area of Intersection = 1550 sqm.

Crossing Distance = 60 m

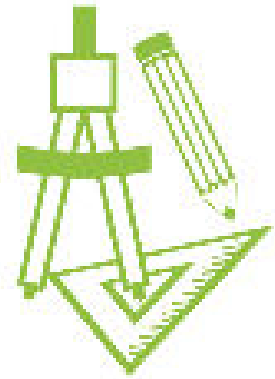


Proposed

Area of Intersection = 150 sqm.

Crossing Distance = 15 m

Activity 1.3.6 – Preparation of final designs & traffic management solutions



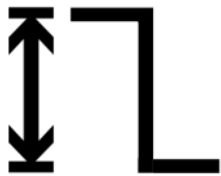
Design Interventions



Low-height vertical separators between motorized and non-motorized users. (Railings, hedges, etc.)



Painting signages, and other information on road surface for easy viewing by children



Lower kerb heights



Activity 1.3.6 – Preparation of final designs & traffic management solutions

Traffic Management & Zonal Interventions



500m before/after school boundary

- 20 km/hr speed limit



Assisted pedestrian crossing



Different pick and drop timings for older and younger students

CHALLENGES

- Government
 - Officials getting transferred
 - Priorities
 - Lack of resources –
 - barricades
- Schools
 - Overburdened students & teachers
 - Staff / Resource crunches
 - Understanding of younger students
- Data
 - Child-specific data
 - Fatalities
 - Injuries
 - Incidents involving children
 - Commute pattern
 - Challenges faced

QUESTIONS