

# A Study on Redevelopment of Kotwali Bazar Street, Dharamshala

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**Abstract**—Dharamshala is a famous tourist destination and is the district headquarter of Kangra District. Recently the city has been declared as Smart City by Ministry of Urban Development, under which various development works are to be proposed. This paper focuses on to redevelop the infrastructure facilities of the Kotwali Bazar Street under the Area based strategy of Dharamshala Smart City Mission 2025.

## Introduction

Dharamshala is a city and a municipal corporation in Kangra district in the Indian state of Himachal Pradesh. It is the district headquarters and has an average elevation of 1457 meters.

It has been proposed to be developed as a smart city with retrofitting and redeveloping the existing infrastructural facilities with the incorporation of technological advancements. The Smart City Proposal aligns itself to become “a smart, sustainable and resilient city with a global imprint and enhanced quality of life for its residents” by 2025 and has following development strategies [1]:

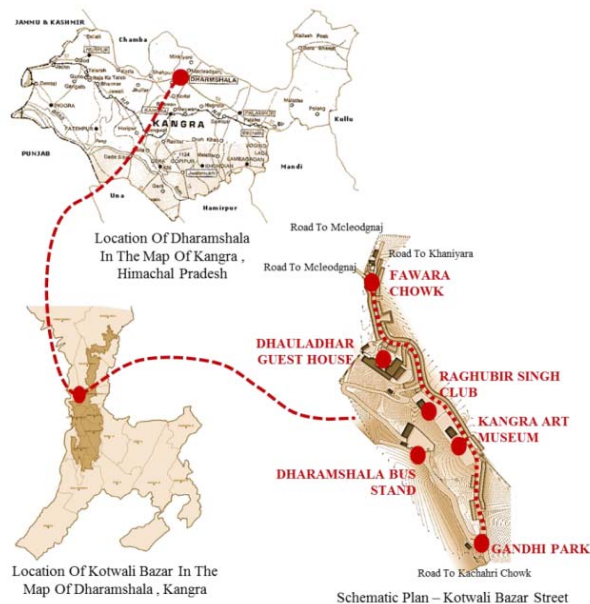
1. Development of tourism potential
2. Sustainable tourism infrastructure & facilities
3. Developing a cultural economy
4. Developing e-Tourism for enhanced travel experience
5. Inclusive infrastructure services planning – water supply, sewerage and sanitation
6. Accessible social infrastructure – schools, healthcare and open/ recreation areas
7. Sustainable mobility options promoting improved walkability and air quality
8. Zero Waste – solid waste and waste water reduction, treatment and reuse
9. Sustainable water management - to improve public health and reduce water footprint
10. Sustainable energy systems – for reliable and efficient power supply

## Location of study

The Kotwali Bazaar Street is the major commercial destination of the town. The entire stretch is around 1.2 Kms.

The stretch starts from Gandhi Park And ends at Fawara junction. The street is basically commercial with pockets of public and semipublic areas [2].

It is the major connecting road linking lower Dharamshala to Mcleodganj, Khaniyara, Dharamkot, Triund. Apart from the major commercial areas along the street there are certain prominent nodes along the road namely Raghubir club area which is a social gathering space, Kangra art museum is yet another old and prominent museum of Kangra art and paintings and Dhauladhar guest house by Himachal Pradesh tourism development corporation.



**Figure 1: The location of Kotwali Bazar Street, Dharamshala**  
**Present scenario of the street**

The following problems have been identified.

1. Heavy vehicular and pedestrian movement
2. Abandoned buildings
3. Insufficient parking

4. No segregation between vehicular and pedestrian movement
5. Electric poles & overhung cables
6. Lack of signage
7. Open unmanaged drains
8. Encroachments
9. Unorganized street side vending
10. Solid waste Management

The condition of the street is shown in Figure 2.



Figure 2: The condition of the street

A SWOT analysis has been performed after conducting a detailed physical survey of the street and is presented in Table 1.

Table 1: SWOT analysis

STRENGTH	WEAKNESS
1. Prominent transport corridor which is predominantly commercial	1. Lack of activities and infrastructure to hold public & tourists
2. Environmentally conscious and civically responsible community	2. Lack of public transport and inadequate Non-Motorized Transport infrastructure
3. Smart infrastructure initiatives	3. Inadequate and inefficient urban services delivery
OPPURTUNITIES	THREATS
1. A prominent part of a developing city which is majorly a tourism base	1. Unplanned growth and inefficient land management
2. Availability of Government support and funds for development	2. Large floating population
	3. Steep vehicular growth in recent past due to lack of Public Transport System

**Areas of Focus and solutions**

The following areas of focus have been identified using SWOT analysis

1. Improvised pattern of vehicular and pedestrian movement
2. Parking
3. Built mass density and growth pattern control
4. Activity nodes and community spaces
5. Giving the stretch vibrant spots

The following area based solutions have been provided

**Walkable Streets**

1. NO HALT ZONE for all vehicles except E-taxis or E-carts
2. Park and walk scheme / e-transport for bazar users
3. Maximum speed limit for any vehicle along this stretch would be 30km/hr
4. Control points issue smart sticker to be pasted on to private vehicles
5. Vehicle’s movement & speed are monitored and the vehicle is fined in case of any discrepancy and fine has to be paid at the control point before exit

The architectural solution on the map is shown in Figure 3.

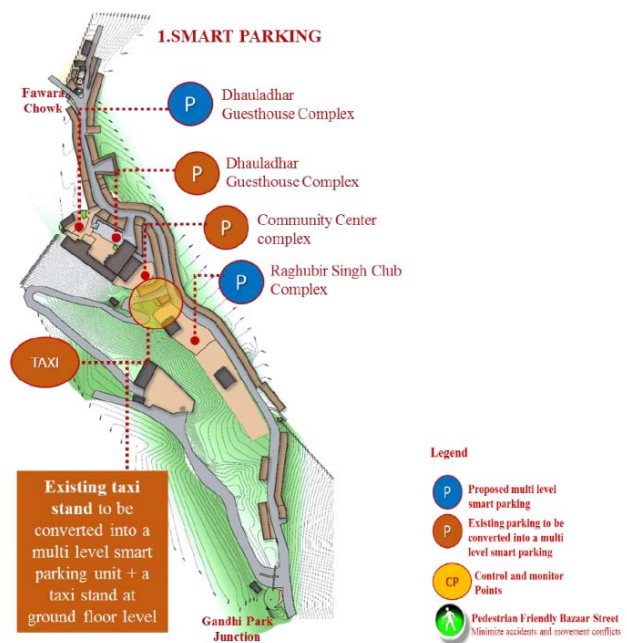


Figure 3: The architectural solution for walkable street

**Monitored Vehicular Movement**

These control points would be strategically located at the beginning and ends of the street stretch monitoring and managing the vehicular movement through smart GPS enabled centrally controlled system. Any vehicle violating the rules would be fined and penalty have paid before its exits the street. The architectural solution on the map is shown in Figure 4.

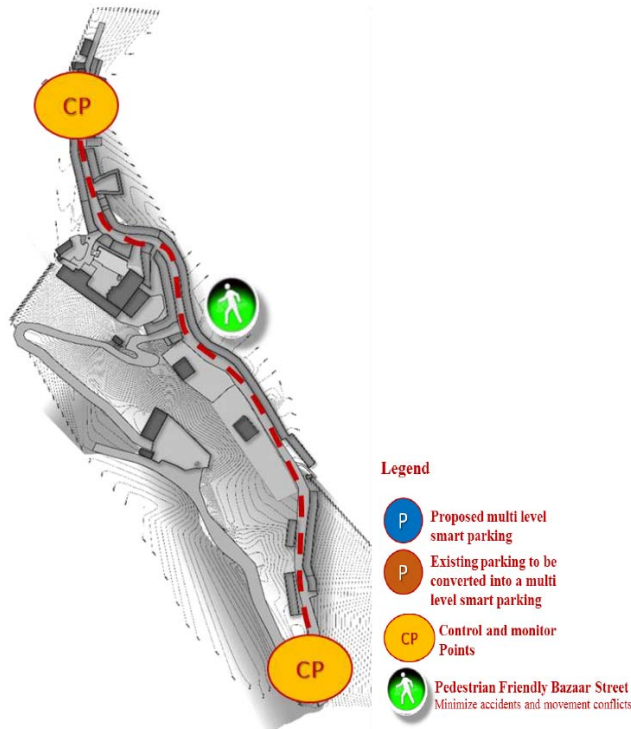


Figure 4. The architectural solution for Monitored Vehicular Movement

**ACTIVITY NODES**

The various activity Nodes at strategic locations have been identified as below:

1. Fawara chowk
2. Meat Market Complex
3. Community Centre
4. Raghubir Singh Club
5. Kangra Art Museum
6. Gandhi Park

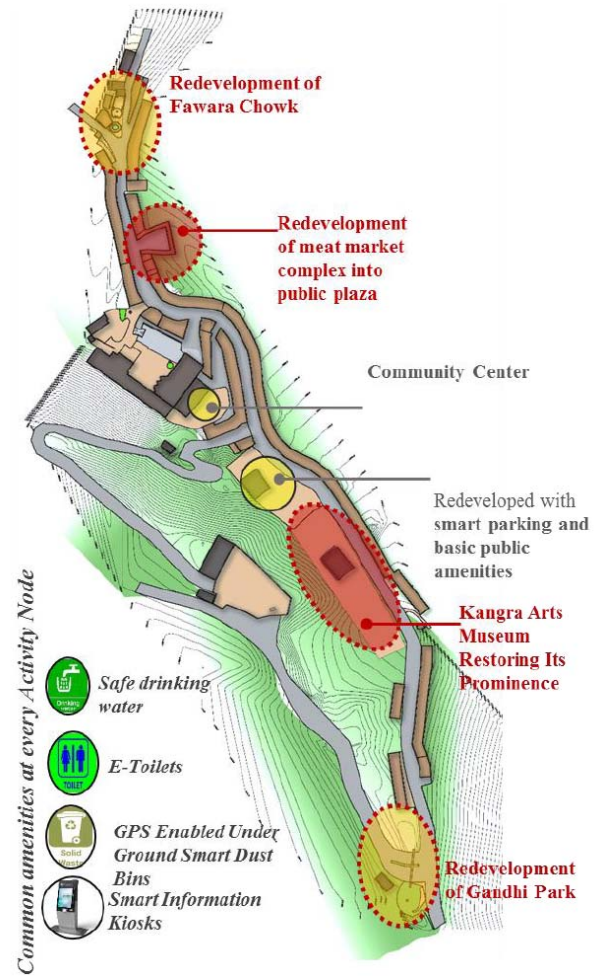


Figure 5. The activity nodes of the street

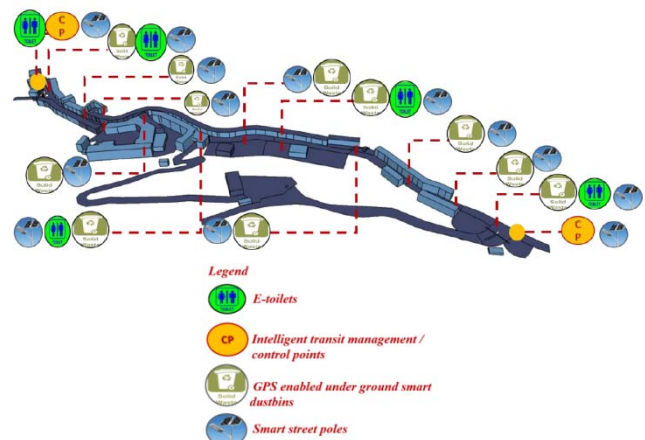


Figure 6: The proposed physical infrastructure of the street

The solutions for the redevelopment of the above nodes has been explained below and also shown in Figure 5.

Redevelopment of Fawara Chowk into landscaped maintained public gathering space with the concept "sit back & relax". The meat market at present shall be redesigned to an

interesting landscaped courtyard complex with local cuisines and kids play area and the meat market to be suitable relocated. Community Center to be provide with Redeveloped with smart parking and basic public amenities. The club shall be provided with smart parking and basic public amenities, so that unauthorized parking can eliminated. Kangra Art Museum Complex to be redeveloped into a public square with “haat” concept. Reinventing Life and Liveliness and Gandhi park to be developed to attract more public gathering.

### PHYSICAL INFRASTRUCTURE

The physical infrastructure such as Smart street poles, E-toilets, Intelligent transit management / control points and GPS enabled underground smart dustbins have been proposed to be provided at strategic locations, major road intersections and activity nodes at a regular distance of 100m-150 m as suggested in IRC 2012 guidelines [3] and the locations are shown in Figure 6.

### STREET SCAPE UPLIFTMENT AND BUILT MASS DENSITY CONTROL

Present condition of the street highlights the need for stricter and sensitive architectural intervention which are proposed below:

1. Provision of Multi-utility underground trench for plumbing, electrical and rainwater systems, telephone and other amenities.
2. Strict Facade control and no encroachment on the pedestrian paths
3. Providing Solar powered multi utility smart street pole
4. Roof top solar panels & water heaters
5. E-vehicles for easy commuting on the street

The proposed typical cross section showing façade regulation is given in Figure 7.

Apart from the above, the suggested smart pan city solutions such as smart parking, intelligent smart monitoring system, smart energy management system, Tap and Park concept and Intelligent Solid Waste Monitoring & Management System have also been recommended for the development of Dharamshala as a smart city.

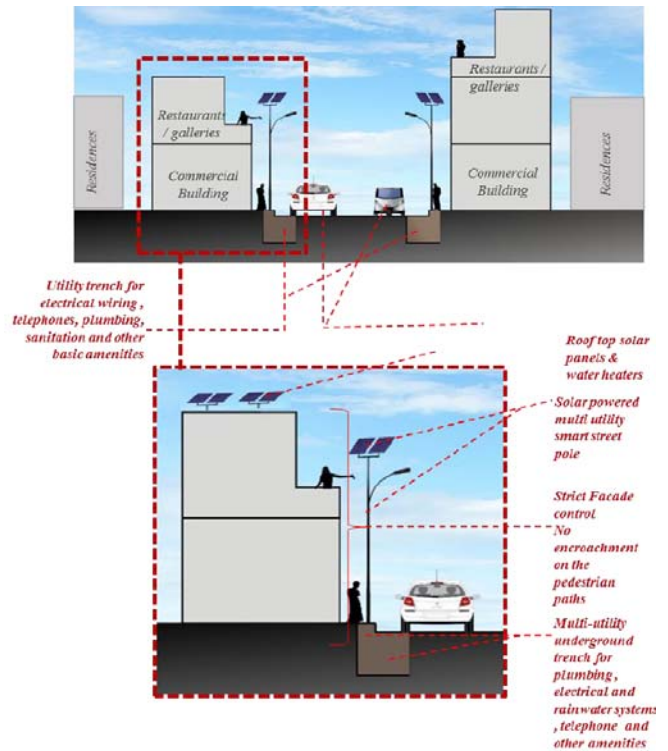


Figure 7: Proposed façade regulation

### Conclusion

The solutions provided are specific under the area based development of the smart city concept. Further, Dharamshala Town can only be made smart, if the relevant solution based on the physical survey of the area are developed in which public participation is ensured.

### Acknowledgement

The study has been done by Ms. Simi Sathyan Roll No. 16M802 under the supervision of the author, for which the student's contribution is acknowledged.

### References

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