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MANIPAL ACADEMY OF HIGHER EDUCATION
SEVENTH SEMESTER B. ARCH. DEGREE EXAMINATION – NOVEMBER 20 19
SUBJECT: ARC-14-401 - URBAN CONTEXT STUDIO
(2014 SCHEME)

Monday, November 25; Tuesday, November 26 and Wednesday, November 27, 2019
(Monday 10:00 – 16:00; Tuesday (10:00 – 13:00 & 14:00 – 17:00); Wednesday (10:00 – 13:00 & 14:00 – 17:00))

Time: 18 Hrs. (in three days)

Max. Marks: 50

READ THE FOLLOWING INSTRUCTIONS CAREFULLY.

- ✗ Answer all Questions.
 - ✗ The first sitting of six hours is continuous at the end of which the candidate shall submit the drawings as indicated. This submission will not be returned to the candidates, so they are advised to keep a copy of the first day's submission.
 - ✗ No sheets will be allowed to be taken out of or into the examination hall.
 - ✗ Major deviations from the design developed and submitted in the "first day's work" will not be accepted.
 - ✗ The medium of presentation, i.e., pencil, ink etc. is left to the choice of the candidates.
 - ✗ All drawings must be in proportion to the mentioned scales.
 - ✗ The Base Map provided is schematic. Assume suitable data wherever not given and state the same.
 - ✗ Only one Graph paper shall be provided at the beginning of the exam which should be used only to trace.
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URBAN DESIGN PROJECT

The urban stretch for the design to be considered is in Udupi. It consists of the neighbourhood adjacent to Reliance smart in Mosque Road to Chithranjan Circle at Maruthi Veethika Road (landmark Bhima Jewellers) in Udupi.

The area is identified with varied activities and functions upon mid-rise buildings. The growth has been increasing over the years thereby changing the character of the place. But the rate of upgradation of the physical infrastructure for the same is unable to cater the needs of the current scenario. Also to be noted that Shri Krishna Temple of Udupi and the main bus stand is in close proximity and this area is having a notable floating population and increasingly more during festivals. This area is also a commercial hub of the city with diverse business interests.

In this light, the context needs to be studied for its criticality on various aspects leading to a suitable solution (urban design) based on choice of theme with a sustainable approach for the issue identified. Stake holders for the respective issues to be addressed have to be considered and used in the design project brief.

The following are the characteristic data of the street:

Location: Udupi, Reliance smart in Mosque Road to Chithranjan Circle

Building Typology: Bank, Residential, Commercial, Hotel, Education, Mixed Use, etc.

Street length: 380 m (approx.)

Typology of Road: Sub-arterial

2 Way, 2 Lane				7 Metres		Mosque Road							
Classified Volume Count during Peak Hour													
Passenger Vehicle								Good Vehicle			Service Vehicle		
PUBLIC TRANSPORT				PRIVATE TRANSPORT		NON - MOTORIZED		HEAVY		LIGHT			
Mini Bus	Bus	Taxi	Auto Rickshaw	Automobile 2- Wheeler	Cars	Cycles	Pedestrians	Truck	Trallers	LCV	Ambulance	Fire Trucks	Police Vehicles
20	12	20	200	788	300	0	196	4	0	20	0	0	0

TENTATIVE CAPACITIES OF URBAN ROADS BETWEEN INTERSECTIONS

No. of traffic lanes and widths	Traffic flow	Capacity in PCUs per hour for various traffic conditions		
		Road with no frontage access, no standing vehicles, very little cross traffic	Road with frontage access, but no standing vehicles and high capacity intersections	Road with free frontage access, parked vehicles and heavy cross traffic
2- Lane (7-7.5m)	One way	2400	1500	1200
	Two way	1500	1200	750
3- Lane (10.5m)	One way	3600	2500	2000
	Two way	4800	3000	2400
4- Lane (14m)	One way	4800	3000	2400
	Two way	4000	2500	2000
6- Lane (21m)	One way*	3600	2500	2200
	Two way	6000	4200	3600

*For three lanes in predominant direction of flow.

PASSENGER CAR EQUIVALENCY

Vehicle	PCU Equivalency Factor
Car	1
Taxi	1
Mini Bus	1.5
Ambulance	1.5
Fire Trucks	1.5
Police	1
Auto	1
Bus	3
Trailers	3
Truck	3
Motor cycle	0.5
Bicycle	0.5

Road width: Average 12m (ROW)

Drainage: Closed, open along one stretch

Street lights: Inadequate

Road type and Condition: Tar and maintained

Shoulders: Partially present and encroached

Traffic flow direction: 2 way as per design

Vegetation on road: Not Present

Garbage collection: Not provided

Parking facility: Not present, Encroached on street

Parking

Topography: 1:250 (Sloping towards highway)

Run off coefficient of materials

Materials	Coefficient
Asphalt	0.75
Cobbles	0.7
Roof of Buildings	0.8
Grass covered soil (Slope less than 2%)	na

Total site area	78564 SQM	
Land cover distribution		
Type	Area (SQM)	Percentage
Built-up	24657	31%
Road carriageway	8556	11%
Other Hard Surfaces	11007	14%
Open space without tree cover	20906	27%
Open space with tree cover	13438	17%
Total Hardcover	44220	SQM
Total Soft cover	34344	SQM

Building roof-type distribution		
Roof Type	Percentage	
Flat	84%	
Sloped	16%	

Informality Data:

Name	Nature	Type	Count
A	Non-Mobile	Flower Stall	1
B	Non-Mobile	Coconut water	1

SUBMISSION REQUIREMENTS:

1. DAY 1:

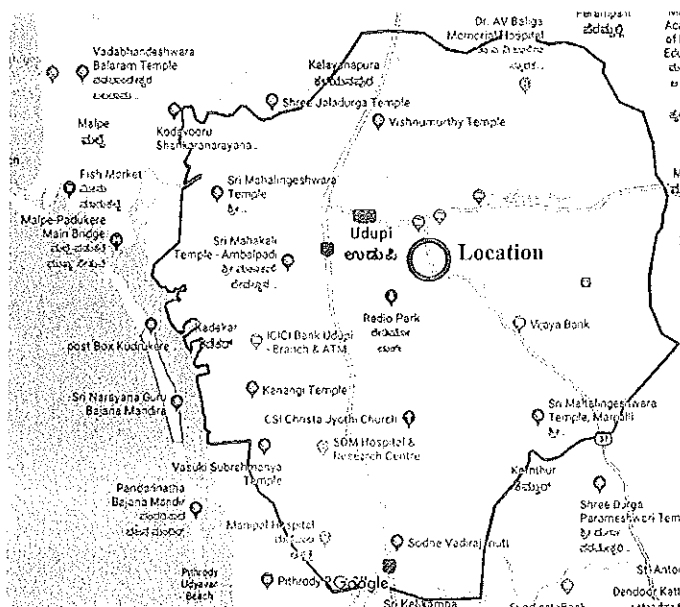
- 1A. Issue Identification/ Potential of Development (Based on the data provided)
- 1B. Stake Holder Identification; Integration of Critical Stake-holder and Critical Issue
- 1C. Development of the Project brief
- 1D. Analysis of the Data

(5 marks × 4 = 20 marks)

2. DAY 2 AND DAY 3:

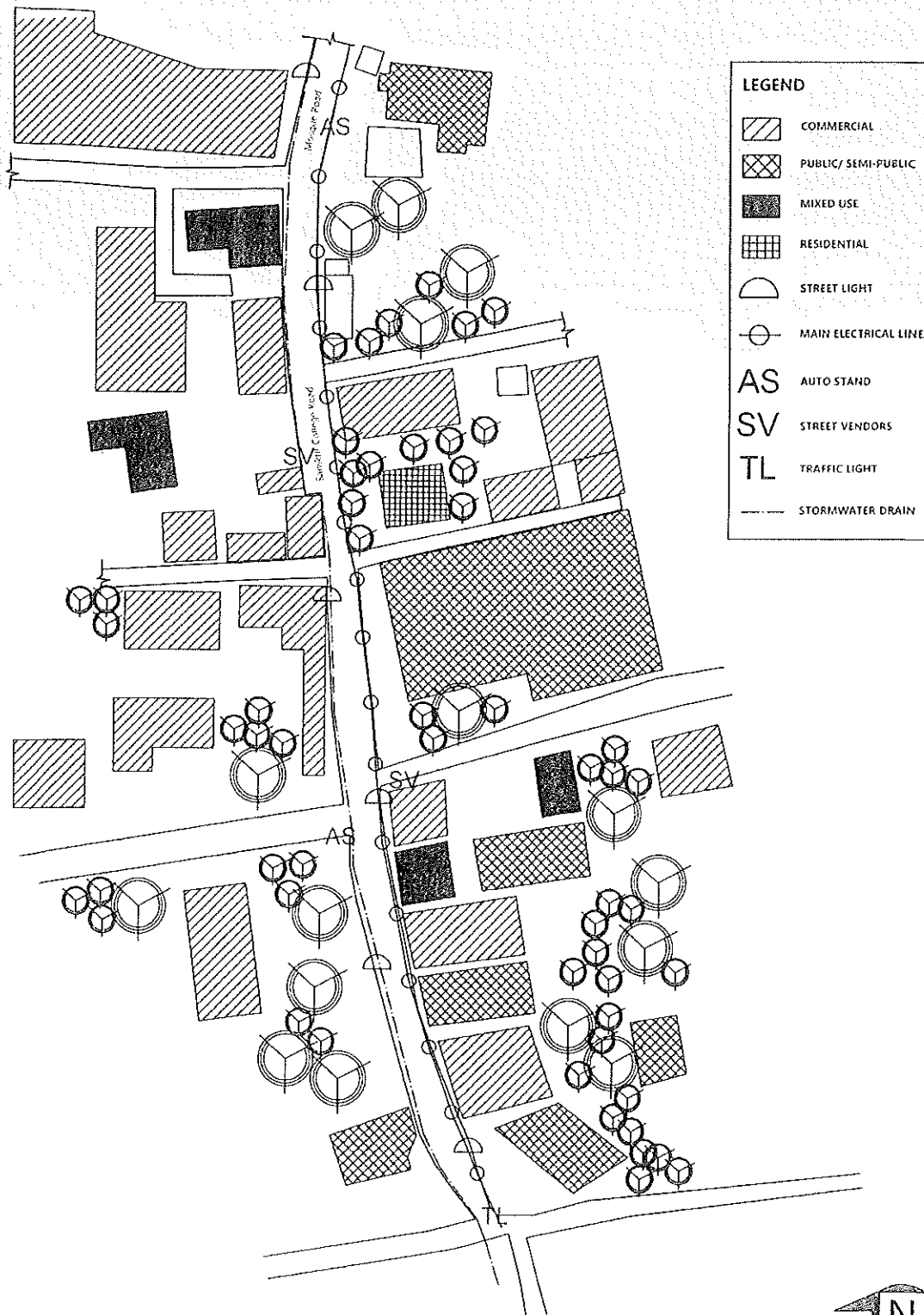
- 2A. Derivation of Concept(s) from Analysis of the Data.
- 2B. Concept Master Plan – Identification of proposals (1:1000 or 1:500).
- 2C. Character and Volume - Sections, Elevations (1:1000 or 1:500), Views.
- 2D. Detail Drawings of Proposals/ Solutions

(5+10+10+5 = 30 marks)



Location Map
Not to Scale

Base Map



TITLE - MOSQUE ROAD TO
CHITHARANJAN CIRCLE, UDUPI

SCALE
1:1800

