Looking Beyond Green: Building for People Instead of Ratings

6th GRIHA Summit, 12th March 2015, New Delhi
The Urban Population of India is expected to double in the next few decades.

Source: Ministry of Urban Development Website
Indian cities have certain distinct conditions not found elsewhere in the world.
Indian cities accommodate people from diverse cultures
The have large numbers of first generation urban dwellers
Diverse modes of transport sharing the same street space. A large number of two-wheelers as against cars.
Existing models need to be reworked to accommodate Indian Needs
The existing Urban Fabric does not provide for the needs of the Urban Indian
Jama Masjid Precinct, Delhi
Shahjahanabad - 17th Century
Jama Masjid – post 1857 AD
Entry to Jama Masjid opposite Matia Mahal
Figure 12: Parking survey locations around Jama masjid
Redevelopment Process
Consolidation of spaces
Relocation of inappropriately sited facilities
Relocation of inappropriately sited buildings
Extension at upper walkway
Redesign of substandard buildings
Redevelopment of street network
Multiple pedestrian routes
Pedestrian link to the Red Fort
Redevelopment of Maulana Azad Mazaar
Spaces for informal commercial activities
Tourist facilities
Proposal
Proposed Master Plan

Legend:
1. Upper Level Walkway
2. Extended Upper Plinth
3. Murshidpur Dargah & Hare Bhare Shah
4. Wash for men
5. Wash for women & tourist interpretation centre
6. New pedestrian link from Palimsan
7. Forecourt for North entry to Mosque & accessible parking
8. Loading / unloading area
9. Meena Bazaar
10. Masqvar Manke Azaad
11. Masqvar Baba Ubayy Shah
12. Masqvar Gom Shah Namaz
13. Plaza for multipurpose activities
14. Damaj Groom
15. Dargah
16. Park
17. Netaji Subhash Chandra Bose’s Statue
18. Urdu Park
19. Urdu Bazaar plaza with food court and amenities below
20. Space for Lubbshukh
21. Ramps to utilities basement
22. Entry to the Precinct
23. Open space for community use
24. Dargah Sharif Shah Kallimullah
25. New pedestrian link to Red Fort
26. Vehicular overpass
27. Pedestrian entries to Jama Masjid Precinct
28. School
29. Police Station
30. Fire Station
31. Security & Information Posts
32. Northern Entry of Jama Masjid
33. Basement for Electric Substation, Water pumping station & other services

NOTE:
1. All new construction and development proposed is subject to amendments in case archaeological remains of significance are discovered after excavation work is started on site. The amendments would be carried out after consultation with all statutory bodies.
2. The proposed development of the ‘Saadullah Chowk’ and link to Redfort will be modified in the event of a more accurate finding of the original location and route.
View of Jama Masjid from Urdu bazaar
View of Jama Masjid from Urdu bazaar
Green roofs - Meena Bazaar
Arterial Street Network, Nanded
15.0m ROW
Two way street
Road no.1
18.0m ROW
One way street
Road no. 8
22.0m ROW
Two way street
Road no. 22
15.0m ROW
One way street
Road no.2&3
18.0m ROW
Two way street
Road no.28
24.0m ROW
Two way street
Road no.7
30.0m ROW, Two way street, Road no.32
Bus Stop
MV Parking – 4 Wheeler
MV Parking – 2 Wheeler

PLAN
Scale 1:200

SECTION - 3
Scale 1:50
Auto-Rickshaw Stand

[Diagram of auto-rickshaw stand with details on footpath, multi-utility zone, N.M.V lane, and M.V. lane. Diagram includes dimensions and materials used such as concrete paver blocks and kerb stones.]
Cycle-Rickshaw Stand
Bicycle Parking
Hawker’s Platforms
Public Toilets
Dilli Haat, Aurobindo Marg
1 Forecourt
2 Entrance Plaza
3 Ticketing
4 Administration
5 Souvenir Shop
6 Conference
7 Craft Shops
8 Tribes of India
9 Food Court
10 Seminar Hall
11 Amphitheatre
12 Parking
13 Toilets
The Garden of Five Senses
SITE PLAN

The 8 hectare garden has been divided into distinct zones:

1. Entrance
2. Administration
3. Plaza
4. Khush Bagh- Formal Garden
5. Rainwater Harvesting Pond
6. Courts of Specimen Plants
7. Rang Bagh- Color Gardens
8. Neil Bagh- Lily Pool
9. Maze
10. West Bazaar
11. Solar Energy Park
12. Art Gallery
13. East Bazaar
14. Amphitheatre
15. Khwabgah- Ancient Plinth
16. Solar PV Panel Bank
17. Solar Powered Bus Track
18. Rocky Ridge
19. Proposed Bamboo Bridge & Butterfly Garden
Streetscaping: An Overview
Design Process

CLIENT, STAKEHOLDER, USER AND EXPERT INPUT

Identification of Area of Intervention

VISION

STUDIES AND ANALYSIS
- Topographic Survey
- Land Use and Encroachment Study
- Heritage and Cultural Study
- Vehicular Movement Study
- Pedestrian Movement Study
- Street Activity Study
- Parking Study
- Urban Utilities Study
- City-Level Analysis

AREA ANALYSIS REPORT
- Issues
- Constraints
- Street Hierarchy
- Design Parameters

STREET NETWORK DESIGN
- Master Plan
- Typical Street Sections
- Detailed Plans
- Design of Street Elements
- Cost Estimates

IMPLEMENTATION
- Approvals
- Revisions
- Tendering
- Construction
Design Approach

Place Making
- Design Vocabulary and Material Selection
- Street Furniture and Amenities
- Landscaping
- Street Vendors
- Public Art

Movement
- Pedestrians
- Non-motorised Vehicles
- Motor Vehicles
- Goods Vehicles
- Supporting Infrastructure – Signals, Signage, Road Markings

Access
- Access to Adjacent Land Uses
- Barrier free-movement
- Considers the needs of Women, Children and the Elderly

Infrastructure for Public and Paratransport
- Bus Stops
- Public Transport Corridors
- Stands for Paratransport

Parking
- Control of Parking Supply

Distribution of Utilities
- Water Supply
- Sewerage
- Storm Water Management
- Street Lighting
Street Design Principles

• Equitable and adequate space allocation
  • Carriageway Design with Separate MV and NMV Lanes where required
  • Adequately Wide Footpaths for Pedestrians
  • Provide for Public Transport: Bus Stops and Bus Bays
  • Provide for Para-transport: Stands for Cycle-rickshaws, Auto-Rickshaws and Taxis
• Streamline Parking and Loading-unloading Activities
• Provide Designated Spaces for Hawkers
Street Design Principles

• Safety
  • Intersection Design to minimize conflict between users
  • Traffic Calming
  • Efficient Street-lighting
  • Provide for Police and Emergency Vehicles
  • Road Markings, Signage and Way-finding Systems
Street Design Principles

• Access for Persons with Disabilities
  • Access Ramps and Kerb Cuts
  • At-grade Pedestrian Crossings
  • Level Surfaces for Easy Navigation
  • Warning Blocks and Auditory Signals at Intersections for the Blind
Street Design Principles

• Improve Quality of Environment
  • Landscaping and Public Art
  • Dustbins and Composting Facilities for Solid Waste
  • Providing Amenities for users such as Public Toilets, Benches, Dustbins and Other Street Furniture
  • Restoring Historic Streetscapes & Opening-up Vistas to Landmarks
Street Design Principles

• Utilities planned considering future needs
  • Storm-water Drainage and Rainwater Harvesting
  • Water Supply and Sewerage
  • Electricity Distribution
  • Telephone and Gas Lines
Street Design - Zoning
Street Design - Logic

ROAD CHARACTERISTICS

Large Right-of-Way
Large Volumes
High Speeds

STREET SECTION DESIGN

• Segregate MV and NMV Lanes
• 2-Way NMV Lanes on both Sides
• Wide Footpaths and MUZs
Street Design - Logic

**ROAD CHARACTERISTICS**
- Small Right-of-Way
- Large Volumes
- High Speeds

**STREET SECTION DESIGN**
- Segregate MV and NMV Lanes
- 2-Way NMV Lanes on One Side
- Wide Footpaths and MUZs
- Slow the speed
Street Design - Logic

ROAD CHARACTERISTICS
Very Small Right-of-Way
Low Volumes
Low Speeds

STREET SECTION DESIGN
Shared MV and NMV Lanes
Adequate Footpaths
Adequate PMZs where possible
The Details That Make A Street Work

The continuity of the footpath is maintained allowing barrier-free movement of pedestrians with ramps allowing vehicles to cross the footpath into the minor street. The design also serves as a traffic calming feature.

Vertical and Horizontal Clearances maintained to Allow movement of Pedestrians

Public Toilet with Solar Panels on Roof
The Details That Make A Street Work

Rain water harvesting pit in Multi Utility zone to collect water and allow it to seep into ground water.

Bog plants such as *Cannas* to filter the runoff from the roads.
The Details That Make A Street Work

STREET VENDORS
Need to be Organised by Providing Designated Street Vending Zones and Kiosks
Serve as Eyes-on-the-street and MAKE STREETS SAFE
The Details That Make A Street Work

**STREET VENDORS**
Need to be Organised by Providing Designated Street Vending Zones and Kiosks
Serve as Eyes-on-the-street and MAKE STREETS SAFE
Street Components

1. Bus stops
2. MV Parking (4wheeler)
3. MV Parking (2wheeler)
4. Autorickshaw stand
5. Cyclerickshaw stand
6. Bicycle parking
7. Hawker platforms
8. Street light poles
9. Trees
10. Kerb cuts
11. Toilets
12. Traffic lights
13. Pedestrian crossing at Intersections
14. Pedestrian crossing at intermediate locations
15. Garbage bins
16. Garbage collectors
17. Planters
18. Entry / Exit from buildings
19. Pedestrian refuge
20. Signage systems
21. Warning blocks for the visually impaired
22. Post box
23. Advertising space 1 – public toilets
24. Advertising space 2 – bus stops
25. Advertising space 3
26. Advertising space 4
27. Advertising type 1
28. Advertising type 2
29. Advertising type 3
30. Advertising type 4
31. Electric transformer
Benefits

Attracts Tourists and Visitors

Improved **Quality of Life** to citizens, Makes city a desirable Investment destination

Improved **Access** to livelihood, education and other needs

**Reduces Congestion, Improves Traffic Flow** and **Reduces Pollution**

People can **Walk and Use Bicycles** – Better for the Environment, Better Public Health

**Improved Safety for All** – Less Accidents
Streetscaping, DDA Vikas Sadan, New Delhi
Streetscaping around CWG 2010 Venues, Delhi
WOODED AREA

FOOTPATH - 1.7 m

M.V LANE - 11.9 m

MEDIAN - 2.7 m

M.V LANE - 8.0 m

UNPAVED AREA - 2.8 m

FOOTPATH - 2.1 m

ROW - 78 m

TOWARDS MEHRAULI

TOWARDS BADARPUR
Godavari Riverfront, Nanded
Assi Ghat, Varanasi
PROJECT INITIATION | CONCEPT DEVELOPMENT | DRAFT CONCEPT INTERVENTIONS REPORT | REVISED DPR


INCEPTION REPORT

EXISTING CONDITIONS INVENTORY & SURVEY REPORT

Preliminary Studies
- Topographic Survey
- Photographic Documentation
- Land Use Study
- Land Ownership Study
- Landscape and Tree Study
- Activity Study
- Movement Network and Parking Study
- Cultural & Mythological Study
- User Group Assessment
- Solid Waste Management Study
- Urban Utility Network Assessment
- Hydrological Assessment

Stakeholder/User/Expert Input
ASSI GHAT
- Southernmost of the 84 ghats
- Situated at the confluence of the now hidden Assi and Ganga River.
- The lord of confluence of Assi is represented by a lingam at the Assi Sangameshwar Temple
- The Panchratna or Panchdev Mandir and the lingam under the Peepal tree are also of significance
- Some of the festivals celebrated here are Dev Deepavali, Ganga Dussehra, Prabhodini Ekadashi, Makar Sankranti and Nag Nathaiya Mela.
- Assi Ghat is an integral part of the Panchkoski Yatra

GANGA MAHAL GHAT
- Ganga Mahal Ghat is named after a palace building constructed by the Maharaja of Benares.
- The palace was built in the first half of 20th century A.D

REEVA GHAT
- Built by Lala Mishir, a priest at the court of King Ranjit Singh of Punjab
- Bought by Maharaja of Reeva in 1879, who later donated it to Benares Hindu University.

TULSI GHAT
- Tulsi Ghat, a 16th century site is named after the great poet Tulsidas who is believed to have written the Ramcharitamanas at Assi and Tulsi Ghats.
- Earlier Tulsi Ghat was known as Lolark Ghat after the famous Lolark Kund, or the “tank of the Trembling Sun”
- Krishnaleela is staged here during the month of Kartik and Ram Leela in the month of Ashwin (Sept-Oct).
Samode Safari Lodge, Bandhavgarh