

GOVERNMENT OF PUNJAB
(LOCAL GOVT. DEPARTMENT)

**WORLD CLASS PROFESSIONALS REQUIRED FOR SMART CITY
PROJECTS OF AMRITSAR, LUDHIANA AND JALANDHAR UNDER
SMART CITIES MISSION (SCM) OF GOVT. OF INDIA**

1. Government of Punjab invites applications from world class professionals in urban development area to provide leadership as Chief Executive Officer (CEO) of the following Companies set up under the Companies Act, 2013 to implement the Smart City Projects in Amritsar, Ludhiana and Jalandhar under Smart Cities Mission of Ministry of Urban Development (MoUD), Govt. of India:
 - 1.1. Amritsar Smart City Limited (ASCL)
 - 1.2. Ludhiana Smart City Limited (LSCL)
 - 1.3. Jalandhar Smart City Limited (JSCL)
2. The expected qualifications for these three (3) positions are as below:

CHIEF EXECUTIVE OFFICER (CEO)

- MBA from premier institutes from India or abroad,
 - Minimum 10 years of experience in relevant field of urban/city development, city governance, major infrastructure projects,
 - Proven ability to lead team of professionals and manage composite projects containing several infrastructure components,
 - Contractual appointment for mission period 4 years, extendable further,
 - Salary is negotiable depending on merit.
3. The nature and scope of Smart City Projects of Amritsar, Ludhiana and Jalandhar are more fully described in **Annexure 1, 2 & 3** of

this document. The detailed Smart City Projects of the three Cities can be viewed in the website: <http://pmidc.punjab.gov.in/goi-schemes/>.

4. **Project Management Consultant:** For assisting the CEO of the SPV Company in the design and implementation of the Smart City Projects, a Project Management Consultant (PMC), who will be leading Consultant at a Global level, is appointed for the full term of the mission period. For example; To assist Ludhiana Smart City Limited (LSCL), M/s AECOM Asia Company Ltd. (India) & PricewaterhouseCoopers (PWC) India – Joint Venture (JV) have been appointed as PMC. A team of about 15-20 team of Consultants are co-located with the SPV Company in the City for full time functioning, with part time support from subject experts. An indicative list of Consultants / Experts is given in **Annexure 4**.
5. The functions, duties and responsibilities of CEO under the Smart City Mission will include;
 - 5.1. CEO is the top executive position, who is overall in charge and responsible for delivering the results expected for achieving the goals of Cities under Smart Cities Mission. CEO will perform all the executive functions of preparation of projects, procurement of Contractors, execution monitoring and evaluation of projects. Under the overall guidance of the Board, he will also carry out the financial structuring, arrangement of finances for execution of projects. CEO will be assisted by the PMC in the above functions.
 - 5.2. Overseeing and managing the general conduct of the day-to-day operations of the SPV Companies subject to the supervision and control of the Board.

- 5.3. Entering into contracts or arrangements for and on behalf of the Company in all matters within the ordinary course of the Company's business.
- 5.4. To formulate and submit to the Board of Directors for approval a Human Resource Policy that will lay down procedures for creation of staff positions, qualifications of staff, recruitment procedures, compensation and termination procedures.
- 5.5. Recruitment and removal of the senior management of the Company and the creation of new positions in accordance with the Company's approved budget and the recruitment or increase of employees in accordance with the Human Resource Policy laid down by the Board.
- 5.6. Supervising the work of all employees and managers of the Company and the determination of their duties, responsibilities and authority;

The candidate is requested to go through the following documents available on PMIDC website: <http://pmidc.punjab.gov.in/goi-schemes/>

1. Smart Cities Mission Guidelines
2. Smart Cities Mission Website of Ministry of Urban Development (MoUD), Govt. of India : <http://smartcities.gov.in/>
3. Executive Summary of Amritsar, Ludhiana & Jalandhar Smart City

Other Terms & Conditions

The appointment of staff on contract basis shall be on the following terms & conditions:-

1. The appointment shall be purely on contract basis for the period of four (4) years only. The mutual suitability of the candidate will be reviewed at the end of 1st year and on the satisfaction of LSCL, the tenure shall be continued for the next 2 years. The tenure of the contract is extendable for further periods as per the satisfaction of LSCL.
2. The location of the CEO will be in the respective Cities of Ludhiana / Jalandhar / Amritsar in Punjab.
3. Candidate's services can be terminated by Smart City SPV Companies with month's notice or with remittance of two pay in lieu thereof. If candidate wishes to leave the services of Ludhiana / Jalandhar / Amritsar Smart City Limited, he shall have to give three month's notice or remittance of three month's salary in lieu thereof.
4. Candidates shall have to submit a declaration that neither he has not been charged / convicted from any Hon'ble Court not dismissed / removed / compulsory retired by way of punishment from the service of any Public Undertaking / Private Sector or from Govt. Department or he has not been declared insolvent by any court.

DECLARATION

I _____ S/o

_____solemnly affirm and declare as
under:-

1. I have not been charged / convicted from any court.
2. I have not been dismissed, removed or compulsory retired
by way of punishment from any public undertaking or
department of Govt.:
3. I have not been declared as insolvent by any court;
4. No departmental inquiry, vigilance case or criminal case is
pending against me;
5. I am not on bail in any case from any court.

(Signature of Candidate)

Name _____

Address _____

Contact No. _____

Post Applied for: **Chief Executive Officer (CEO)**

1. Amritsar Smart City Limited (ASCL)
2. Ludhiana Smart City Limited (LSCL)
3. Jalandhar Smart City Limited (JSCL)

(Note: Please tick and mention in the box below the City of your option for CEO post)

1. Full Name with Title (e.g. - Mr. / Mrs / Ms.):

PHOTO

2. Date of Birth:

Age as on 1st December, 2016:

3. Permanent Address:

Mailing Address, if different

Address

District

State

Pin Code:

Address

District

State

Pin Code:

4. Contact Details:

Phone:

Home:

Mobile:

Email ID:

Gender:

Male

☐

Female

☐

Nationality:

5. Education:

[Indicate college / university and other specialized education of the applicant, giving names of institutions, degrees obtained, and dated of obtainment];

6. Membership of Professional Associations:

7. Other Training:

8. Languages:

Language	:	Proficiency (Excellent / Good / Fair)		
		Speak	Read	Write
English	:			
Hindi	:			
Punjabi	:			
Any Other (pl. specify)	:			

9. Countries of Work Experience:

10. Employment / Experience Record:

[Starting with present position, list in reverse order every employment held by you since graduation, giving for each employment (see format here below): dates of employment, name of employing organization, positions held.];

- From [Year] To [Year]
- Employer:
- Position held:
- Detailed Tasks Assigned:
[List all tasks performed under this assignment / job]

(Note: Please attach separate sheets, if space is not adequate)

11. Work undertaken that best illustrates capability to handle the task assigned:

[Among the Assignment/jobs in which you have been involved, indicate the following information for those Assignment/jobs that best illustrates your capability to handle such tasks with closest relevance to the proposed responsibilities of CEO, Smart City SPV]

Name of Assignment/ job or project:

Year:

Location:

Employer:

Main project features:

Positions held:

Activities performed:

(Note: Please attach separate sheets, if space is not adequate)

12. **Adequacy for the Assignment:**

Essential Skill Sets	
1. (Area of Skill tests) 2. 3.	Quote the Serial No. of assignment handled by you which provides this skill sets.

13. **Personal Statement of Objective:**

(In 250 words, please state your long term career objectives and how you would be most suited to handle this assignment and reasons why you should be selected for this post)

14. **References (Two):**

15. **Declaration:**

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience. I understand that any willful misstatement described herein may lead to my disqualification or dismissal, if engaged.

Date:

(Signature of Candidate)

Place:

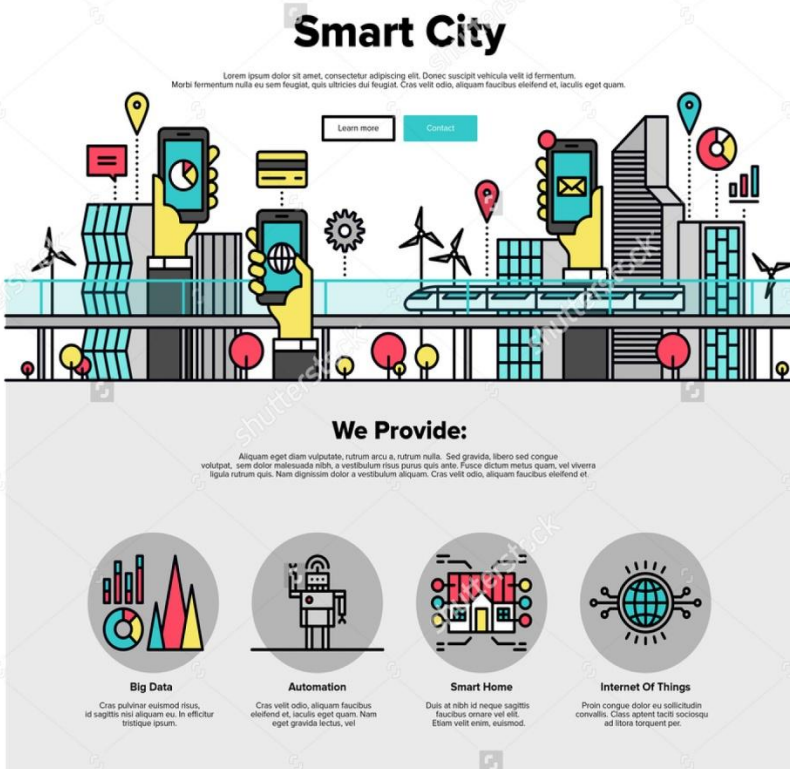
Name of the Candidate

Attachment: *(mention details of attachments)*

1.
2.
3.

EXECUTIVE SUMMARY

SMART CITY AMRITSAR



ANNEXURE 1

VISION STATEMENT:

"**Amritsar:** an internationally oriented, Green and Vibrant city with world class infrastructure that treasures its rich cultural, historical and religious heritage as a sustainable foundation for its Tourism based economy".

CITIZEN CONSULTATION

Citizen consultation exercises involved various groups, associations and citizens from all sections of the society. Total 354,869 citizens (30% of total population) participated in evolving AMRITSAR vision & Goals.

KEY THEMES

THEME 1: INTELLIGENT PHYSICAL INFRASTRUCTURE

THEME 2: WORLD CLASS TOURISM DESTINATION

THEME 3: SELF SUSTAINABLE TRANSPORTATION & ENVIRONMENT

Theme 4: MAKING GOVERNANCE CITIZEN FRIENDLY

Theme 5: INCLUSIVE GROWTH (PLANNED COMMUNITIES)

PAN CITY PROPOSAL (to be implemented throughout the City):

Amritsar is a historical and holy city with an average of one lakh tourist visiting the city every day. During citizen consultation process, various issues were raised by the citizens and key stakeholders related to government and municipal services. The issues were later complied, scrutinized, and short-listed based on the maximum responses and priority. In response to the concerns and views expressed by citizens three pan city smart solutions are as selected for implementation throughout the city.

- 1. Traffic & Mobility:** Seamless urban mobility with the help of ICT based platforms. The basic aim will be to increase the share of public transport with equitable road distribution for pedestrians, cycle tracks and vehicles. It will be integrated with existing and proposed transportation networks/system of Amritsar city.

- 2. Intelligent Solid Waste Management:** Intelligent solid waste management will be an ICT enabled system. Intelligent solutions will improve collection, transportation, landfill management, and waste-to-energy processing. Citizen services will be improved through mobile apps that facilitate grievance reporting and redress.
- 3. ICT Based City Utilities Management and E-Governance:** Integration of all government services and bringing them to a common digital platform. Various sensors, video camera based inputs and application systems will provide smart solutions to Amritsar city to improve operations and optimize services delivery to citizens and tourists for healthy experience.

AREA BASED DEVELOPMENT (to be implemented in selected area):

- **Area Selected**

Walled city area (>950 acres) is selected for Retrofit-Redevelopment through desk research, analysis, meetings with public representatives, prominent citizens and citizen's engagement (senior citizens, disabled people, women, children and youth among others).. The area acts as a landmark for the city depicting its strong cultural importance and will become economic and cultural hub.

- **Components of Proposed Area Based Development**

- 1. Transport & Mobility:** Road development, no vehicle zone with smart parking, pedestrian friendly roads, real time air monitoring, last mile connectivity with e rickshaws, carts and cycle sharing system.
- 2. Assured Electricity Supply:** Provision of 24 x 7 power supply with 10% from Renewable energy source, Micro grid monitoring with smart consumer meters. Overhead cables of power and telecommunication along main roads to be taken underground will help in improving the street scape of walled city area.

- 3. Water Supply, Waste Water & Sanitation:** 24 x 7 water-supply system with SCADA, 100% smart metering, reuse of recycled wastewater and channelized storm water drainage.
- 4. Solid Waste Management:** 100% collection and segregation, smart garbage bins, mechanical sweeping, economical transportation and scientific disposal of waste.
- 5. Open Space & Visible Improvement:** Reinventing available hierarchy of urban green spaces(60nos)and circular road as attractive Public Spaces, by transforming them into recreational areas whereas larger parks (sakatri and goal bagh) into themed cultural destinations. Creating Public squares and refurbishment of peripheral wall of walled city.
- 6. E-Governance & Citizen Services:** Smart mobile app for citizens for all municipal services. Cameras with fully equipped operations control rooms for walled city area. Mobile based exploratory app for ease of tourists.
- 7. Redevelopment of Public Amenities:** Re development of Town hall into Socio Cultural recreational center. 'Theme/special events calendar' could be added to make the space an even bigger destination, by organizing events related to e.g., Music, Theater, Arts, Yoga, Redesign public arenas, Sports, Environment and Heritage protection etc.
- 8. Relocation of Polluting Densd Urban Clusters From Core:** Moving polluting industrial and wholesale clusters outside the walled city area. Strengthening of skill based employment and business clusters at identified locations. Providing inclusive affordable housing in growth corridors of Amritsar. Aim will be to promote Skill development clusters to boost brand 'AMRITSARI' or 'AMBARSARI' in ethnic cuisines, long multipurpose scarf (phulkari) and foot wears (jootis) among others.

FINANCIAL PLAN:

The total estimated cost of the proposed projects including CAPEX & OPEX has been prepared to the tune of **Rs.4052.90 Cr.**

A. CAPEX

S. No.	Components	Estimated cost (Rs. in Cr.)
A.	PAN City Projects	1814.40
1.	E-Governance	90.00
2.	Intelligence Solid Waste Management	442.50
3.	Piped Gas Network	600.00
4.	Mobility & Traffic	656.90
5.	DPR & Master Plan	25.00
B.	Area Development (Retrofitting) and redevelopment-Walled City	1616.50
1.	24 x 7 Water Supply	185.40
2.	24 x 7 Electricity	5.90
3.	Sanitation including Solid Waste Management (SWM)	168.90
4.	Mobility & Intelligent Traffic	136.7
5.	Open Space & Improvement of Urban Area	113.00
6.	Redevelopment of Public Amenities	202.30
7.	Relocation of Dense Pollution Urban Cluster	784.30
8.	DPR Cost	20.00
	Total (A+B)	3430.90

B. OPEX

: 622.00 Cr.

Total Project Cost (CAPEX + OPEX)

: 4052.90 Cr.

RESOURCE PLAN: The financing options for the components identified under the SCP Amritsar are planned considering the capital available from the GoI & GoP and will be made available for the period of 5 years. Different sources of funding which can be used to fund SCP Amritsar are:

Funding (Inflow):

Sr.No.	Fund Source (@ 5 Years)	Rs. in Crore
A.	GoI & GoP Funding - SCM	976.00
1.	Centre funding	488.00
2.	State Funding	488.00
B.	Funding Through Central & State Govt. Schemes	1333.63
3.	• Convergence SBM - SWM	301.50
4.	• IPDS 24x7 (energy supply)	3.80
5.	• Convergence AMRUT 24x7 (water supply)	150.00
6.	• Convergence HRIDAY – Heritage & Peripheral Zone Upgradation	60.00
7.	• Beautification of Golden Temple Area – Tourism Department	60.00
8.	• Sewerage Board (PWSSB)	12.00
9.	• BRTS (PIDB)	50.00
10	• Town Hall into Museum - Tourism Deptt.	6.33
11.	• Mechanical Sweeping	90.00
12.	• Piped Gas	600.00
C.	PPP Revenue	1086.00
13.	Revenue from PPP Commercial	1070.00

Sr.No.	Fund Source (@ 5 Years)	Rs. in Crore
	Projects	
14.	Revenue from MLCP Parking	16.00
D.	Revenue from User Charges	441.67
15.	Revenue from Gas Network	50.00
16.	Revenue from Setting of 8 CNG Pumps	20.00
17.	Revenue from Underground Cabling & Gas Network	5.00
18.	Revenue from Advertisements	47.00
19.	Hybrid Vehicle 50 Nos.	0.67
20.	Revenue from Increased Taxes	305.00
21.	Revenue from Impact Fee from Area Development Project	14.00
	Total (A+B+C+D)	3837.30

EXECUTIVE SUMMARY

SMART CITY LUDHIANA

Smart City

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[Learn more](#) [Contact](#)



We Provide:

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Big Data

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Automation

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Smart Home

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Internet Of Things

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ANNEXURE 2

VISION STATEMENT:

“LUDHIANA CLEAN & GREEN CITY”

PAN CITY PROJECTS *(to be implemented throughout the City):*

- **Sanitation & Solid Waste Management**
- **Integrated traffic and transport management system**
- **Water Supply – Surface water based water supply 24x7 scheme**
- **Integrated ICT based digital platform for management of urban infrastructure and safe city project including Smart street lighting.**

AREA BASED DEVELOPMENT *(to be implemented in selected area):*

- **Area Selected**

Ferozepur Road Area: Rose Garden, Ghumar Mandi, Bhaibala Chowk (retrofitting) - Population (38,000 - projected 2017) - Area (790 acres)

- **Components of proposed Area Based Development (Ferozepur Road Area)**

- i. Streetscape Improvements and Beautification including footpaths, landscape, signage and bioswale on Ferozepur road
- ii. Hoarding free city & Digital Hoarding
- iii. Transportation Improvements
- iv. Vehicle Free Zones (Ghumar Mandi)

Area wide

- i. Water Supply Management System (smart metering, SCADA systems, pressure monitoring meters, etc.)

- ii. Waste Water Management (sensors for sewage over flow, etc.)
- iii. Common Utility Tunnel
- iv. Storm Water Drainage
- v. Solid Waste Management (color coded garbage bins, mechanized road sweeping, etc.)
- vi. Underground Cables
- vii. Safety & Security
- viii. Robust IT Connectivity & Digitization
- ix. Innovative use of Parks & Open Spaces
- x. Smart Street Lighting (installation of Solar based LED Street Lighting)
- xi. Storm Water Reuse & Rain Water Harvesting System

Financial Plan

The total estimated cost of the proposed projects including CAPEX & OPEX has been prepared to the tune of **Rs.5547.14 Cr.**

A. CAPEX

S. No.	Components	Estimated Cost (Rs. in Cr.)
A.	Pan City Projects	3250.00
1.	Sanitation & Solid Waste Management	550.00
2.	Integrated Traffic & Transport management system (ITMS)	200.00
3.	New Surface Water based Water Supply (24x7) Scheme	2100.00
4.	Integrated ICT based digital platform for management of urban infrastructure and safe city project including Smart street lighting.	400.00

S. No.	Components	Estimated Cost (Rs. in Cr.)
B.	Area Based Development Projects	1051.50
1.	Portable Water	43.16
2.	Waste Water	5.00
3.	Power	68.05
4.	Common Utility Tunnel	157.95
5.	Storm Water Management	51.65
6.	Waste Management	7.52
7.	Urban Design & Landscape	286.97
8.	Transportation	431.20
	Grand Total (A+B)	4301.50

• **OPEX**

i.	PAN City Projects	Rs.1005.00 Cr.
ii.	Area Based Projects	Rs.140.64 Cr.
	Total O&M (for 10 years)	Rs.1145.64 Cr.

Total Project Cost (CAPEX + OPEX): INR 5547.14 Cr

RESOURCE PLAN: The financing options for the components identified under the SCP Ludhiana are planned considering the capital available from the GoI & GoP and will be made available for the period of 5 years. Different sources of funding which can be used to fund SCP Ludhiana are:

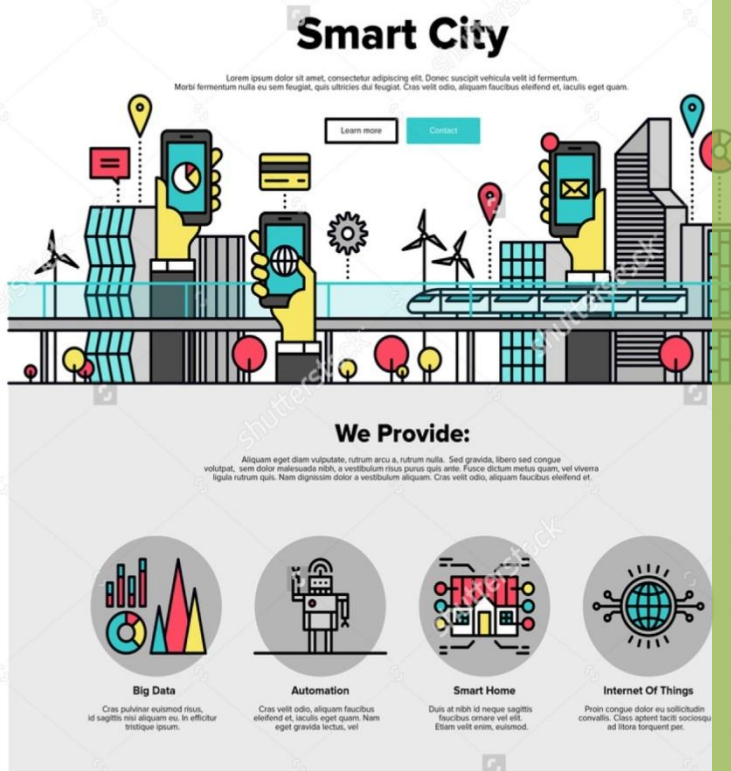
Funding (Inflow):

Sr.No.	Fund Source (@ 5 Years)	Rs. in Crore
A.	GoI & GoP Funding - SCM	988.00
1.	Centre funding	488.00
2.	State Funding	500.00
B.	Funding Through Central & State Govt. Schemes	1408.55

Sr.No.	Fund Source (@ 5 Years)	Rs. in Crore
1.	Atal Mission for Rejuvenation & Urban Transport (AMRUT) (<i>GoI - 1/3rd Share + GoP - 2/3rd Share</i>)	1082.50
2.	Integrated Power Distribution System (IPDS) Scheme (<i>Rs.34.83 Cr - 60% GoI Share</i>)	58.05
3.	E-Governance Program – Govt. of Punjab	15.50
4.	Solar City Mission of Govt. of India (<i>Rs.75.76 Cr - 30% GoI Share</i>)	252.50
C.	PPP Revenue	2789.50
3.	Public Private Partnership (PPP)	2789.50
	Total (A+B+C)	5186.05

EXECUTIVE SUMMARY

SMART CITY JALANDHAR



ANNEXURE 3

CITY VISION:

“Healthy & Productive Jalandhar: The leading sports & manufacturing hub in Asia”

CITIZEN ENGAGEMENT:

Public Consultation	<ul style="list-style-type: none">▪ Citizen Participation: ~ 3,77,000 (~41% of the Jalandhar City Population)▪ Participation through Seminar/Workshop : ~ 39,482
Live Talk Shows	<ul style="list-style-type: none">• One live talk show at Doordarshan Channel• Road Shows – 10 in numbers• FM talks – 2. In addition there were regular announcements on FM radio channels to engage people in the decision making process.
Stakeholder Consultation	<ul style="list-style-type: none">• Focused Group discussions with Academia, architects, Hoteliers, Bar Associations, Builders, , Councillors, Sport Industrialists 117 Participants
MyGov	2693 + Suggestions and 93 Entries in city Logo competition. Jalandhar City Logo finalised
Suggestion via email	Directly to corporation – 81 e-mails
Social Media	<ul style="list-style-type: none">▪ Face Book Likes – 3469▪ You Tube – 1931
Written Suggestions	50,000+ Suggestion Forms circulated among the citizens, 17787 + suggestions received

PAN CITY DEVELOPMENT (to be implemented throughout the City):

- **Smart City Bus System (SCBS)**
 - i. High Quality CNG AC & Non AC Low floor Standard size and Midi buses with disabled friendly wider doors,on-board cameras & GPS.
 - ii. AVLS, real time passenger information system on-bus and bus-stops through LED display to give route info
 - iii. Central control room linked to bus stops and buses to receive, analyse, store, convey and use for operations
 - iv. Hand held electronic ticketing machine for on-board fare collection, smart cards including passes
 - v. Upgraded, well-lit and differently-abled friendly bus stops at 400 mm floor height for seamless boarding- alighting

- vi. City bus routes (13 nos) covering entire city
- vii. Signals upgradation to modern vehicle actuated signals, compatible with ATCS system, pelican signals near high pedestrian activity
- **Integrated Technology Solution for Public Utility and Public Safety (ITSPUPS)**

Public Utility

- i. SCADA & Predictive Analysis for water & sewerage utilities
- ii. Decision Support System with consolidated view of water network via schematics
- iii. Data Analytics using data from across the Water & Sewage Network
- iv. Real-time monitoring of utility meter readers
- v. Smart Billing & Collection
- vi. Leakage sensors/Ghost Pipe detection systems
- vii. Sensor in Sewer Line Infrastructure

Public Safety

- i. Cameras & sensors at vulnerable locations including fixed cameras (Full HD), PAN tilt zoom cameras (PTZ), ANPR Cameras and Panic Buttons
- ii. Command & control center equipped with predictive analysis, workflow planner, social media Integration, collaborative monitoring, video management & video analytics tools, Public Addressing System
- iii. Computer aided dispatch (CAD) with Dial-100 (accessing Police in emergency)
- iv. ICT system to regulate traffic, enable expeditious emergency & Disaster Response by integrating various Fire & Health Dept.
- v. Installation of Smart poles at vulnerable locations with Wi-Fi capability , LED
- vi. lights, Cameras.

ICT based LED Street Lighting (LSL) Management

- i. 81000 Sodium vapors street lights with LED lights equipped with photo sensors, wireless sensors & microcontrollers for enabling automatic ON/OFF

AREA BASED DEVELOPMENT (to be implemented in selected area):

- **Area Selected:**

Burlton Park & Adjoining Area - Population (73,260) – Area (1010 acres)

- **Components of proposed Area Based Development**

- i. Sports Hub (REDEVELOPMENT IN AN AREA OF 63 ACRES) consisting of multipurpose stadium, fields and spaces, energy efficient structures for the training academies, sports rehabilitation and education centres, commercial trade facilitation for sports goods and hospitality and leisure venues. (LEED certified, ASHRAE Certified)
- ii. Develop a comprehensive green network of spaces (36 acres) and NMT routes (24 kms)that will function as both well lit pedestrian and cycling routes with good quality public realm, and soft-scape areas for rainwater recharge and storage.
- iii. Environmental protection and aesthetic development through Canal area rejuvenation, making it a walking and cycling green space of 4.8 km length with new street furniture and planters
- iv. Provision of pedestrian ramps, railings for safety of specially-abled and elderly along canal road and organized commercial areas
- v. Establishment of a Skill Development Center
- vi. Comprehensive traffic mobility plan that includes new bus routes, broad pavements for pedestrians, at grade crossings, and cycle tracks along the main routes.
- vii. Underground utility ducts on all roads (80 kms)
- viii. Replace 41 water pumps with energy efficient pumps & replacing 65kms of water lines.
- ix. Install 10,000 Automated Metered Readers (AMR) and 2 RFID for volumetric based smart billing & collection system and SCADA in water supply
- x. Construction of 10 overhead storage reservoirs to ensure 24X7 water supply

- xi. Installation of 50 kms of dual piping system for STP's treated wastewater reuse.
- xii. Replace old 15 kms sewer lines and install E-Sensors (man-holes) and SCADA system
- xiii. 100% coverage of Storm Water drainage system through new drains
- xiv. Pumpsets to drain water from low lying area and construction of 20 Recharge Wells
- xv. Introduction of Smart poles at strategic locations with a provision for a) Wifi b) LED lighting c) Camera & Sensors. 100% replacement of existing 5000 street lights with LED.
- xvi. Underground electrical cabling and 100% coverage of properties through Smart Meters.
- xvii. Door-to-door collection of segregated MSW, creating a complaint redressal system, GPS tracking system for MSW vehicles, secondary collection points with dumpers bins
- xviii. Installation of CCTVs at for video surveillance system (video crime monitoring)
- xix. Introduction of E-Rickshaw to arrest air pollution caused due to diesel based IPT services.
- xx. Provision of dedicated E-Rickshaw stands and create "Dial a Rickshaw and App based personalized rickshaw booking through mobile phones
- xxi. Dedicated Grade Separated U-turn on Hansraj Marg for Burlton Park Sports Complex
- xxii. Redevelopment of Slums (767 Households) under PPP Format
- xxiii. Provision of Smart Class room in Government Schools
- xxiv.** Establishing Roof top solar infrastructure on Institutional area (1,49,564 sq mt) to meet energy demand from renewable sources.
- xxv.** 100% area to be covered under Piped Natural Gas network

FINANCIAL PLAN:

The total estimated cost of the proposed projects including CAPEX & OPEX has been prepared to the tune of **Rs.3431.39 Cr.**

A. CAPEX

S. No.	Components	Estimated Cost (Rs. in Cr.)
A.	Pan City Projects	465.11
1.	Public Transportation	134.11
	a. Buses – Rs.55.30 Cr.	53.30
	b. Depot & Bus Shelters	32.15
	c. Intelligent Transportation System (ITS) & Advance Traffic Control System (ATCS) Infrastructure	27.92
	d. Miscellaneous	5.51
	e. DPR & PMC	6.00
	f. CNG Distribution	9.23
2.	Integrated Technology Solution for Public Utility & Public Safety (ITSPUPS)	190.75
	a. Cameras, Servers and Command & Control Room	152.49
	b. ITS Support for Public Utilities	30.60
	c. DPR & PMC Cost	7.66
3.	LED Street Lighting	140.25
B.	Area Based Development Projects	1519.40
1.	Area Development – Burlton Park Area (Retrofitting) & Gas Distribution	952.27
	a. Water, Waste Water, Power & Utility Ducting	262.51
	b. Area Improvement	128.03

S. No.	Components	Estimated Cost (Rs. in Cr.)
	c. Traffic Circulation & Pedestrian Facilities	246.92
	d. Roof Top Solar Power	197.44
	e. Gas Distribution (PNG)	32.64
	f. Social Interventions	40.50
	g. DPR & PMC Cost	44.23
2.	Burlton Park Sports Hub (Redevelopment)	567.13
	a. Stadium Cost	148.40
	b. Support Infrastructure	24.21
	c. International Swimming Pool	4.55
	d. Multi Level Car Parking (MLCP)	32.56
	e. Arena & Hotel	329.30
	f. Miscellaneous	17.09
	g. DPR & PMC Cost	11.01
	Grand Total (A+B)	1984.51 Cr.

B. OPEX

i.	PAN City Projects	Rs.629.94 Cr.
ii.	Area Based Projects	Rs.816.94 Cr.
	Total O&M (for 10 years)	Rs.1446.88 Cr.

Total Project Cost (CAPEX + OPEX): INR 3431.39 Cr

RESOURCE PLAN:

The financing options for the components identified under the SCP Jalandhar are planned considering the capital available from the GoI & GoP and will be made available for the period of 5

years. Different sources of funding which can be used to fund SCP Jalandhar are:

Funding (Inflow):

Sr.No.	Fund Source (@ 5 Years)	Rs. in Crore
A.	GoI & GoP Funding - SCM	988.00
1.	Centre funding	488.00
2.	State Funding	500.00
B.	Funding Through Central & State Govt. Schemes	786.19
1.	Atal Mission for Rejuvenation & Urban Transport (AMRUT) (<i>GoI - 1/3rd Share + GoP - 2/3rd Share</i>)	539.83
2.	MNRE Subsidy for Solar	59.74
3.	Support through Govt/PSU Company projects (City Based Gas Distribution, Department of Sports, LED Streetlight Project)	186.62
C.	PPP Revenue	551.17
D.	Debt	108.42
	Total (A+B+C)	2433.78

Manpower Team of Project Management Consultant for Smart Cities

S. No.	Position	Minimum Qualification	Minimum Experience
Core Team (For Facilitation, Development and Implementation of Project)			
1.	Project Director	Masters degree in Engineering or Architecture and Masters degree in Management	<ul style="list-style-type: none"> • 20 Years experience in Urban Sector • Experience of Project Management in Urban Infrastructure Works. Experience as Team leader/ Deputy Team leader for minimum 5 projects. • Knowledge of urban development policies, issues and Project experience
2.	Project Manager cum Urban Infrastructure Specialist	Master's in Civil Engineering/ Bachelor in Civil Engineering	<ul style="list-style-type: none"> • 15 Years experience in Urban Sector • Experience in citywide urban development and infrastructure planning/ design/ implementation (water supply, sewerage/septage / SWM/ urban roads etc.).etc) • Knowledge of urban development issues and Project experience.
3.	Project Manager (Finance)	Chartered Accountant/ MBA (Finance)	<ul style="list-style-type: none"> • 12 years relevant experience. • Experience of developing financial capacity enhancement plan for municipalities, including creating land monetization plans • Experience in developing business case for ULBs for market borrowing • Experience in raising finances and managing them for infrastructure projects • Experience in project finance evaluation resulting in bankable infrastructure projects • Experience in evaluating projects across central, state and ULBs • Innovative instrument design for investment in large infrastructure projects.

S. No.	Position	Minimum Qualification	Minimum Experience
4.	Procurement / Contract and Legal Expert	Degree in Engineering/ Management/ law with advanced degree, diploma or training in contracts and procurement administration.	<ul style="list-style-type: none"> • 12 years experience in the area of public procurement • Experience in construction contract procurement /management in infrastructure projects. • Experience in optimal contract design for complex infrastructure projects or public procurement at state, central or ULB level in infrastructure • Experience in getting on-board technical consultants to create DPR, and then awarding these packages to different vendors based on package strategy • Experience in contract drafting & negotiating well to get the best possible contracts along with performance guarantees.
5.	Project Manager – Controls (Execution, Monitoring, evaluation expert).	Post Graduation degree in Engineering or Construction Management / Advance Training in Multiple Project Management Softwares /	<ul style="list-style-type: none"> • Minimum 10 years experience. • Last 5 years in senior project controls role • Experience with web based controls tools • Work experience in scheduling / trend analysis and using leading PM tools like MS projects, primavera, PCM, Excel, data base reporting etc.
6.	E-Governance / ICT Expert	MBA with degree in Computer Science or MCA or equivalent	<ul style="list-style-type: none"> • Minimum experience 10 years • Experience of simplifying Ease of Doing Business at Centre, State or ULB level • Deep understanding of e-governance toolkit and experience of working with e-Governance projects at ULB, State and Central level of Govt. • Experience in implementing urban e-governance solutions • Experience of working with mission mode e-Governance projects at ULB, State and Central level of

S. No.	Position	Minimum Qualification	Minimum Experience
			Govt. <ul style="list-style-type: none"> Experience in design and implementation of ICT based Smart Solutions in infrastructure.
7.	Water Supply, Sewerage, Drainage Utilities Expert	Degree in Civil Engineering with experience of design and monitoring of water supply/ sewerage / drainage Projects.	<ul style="list-style-type: none"> 15 years' experience in water supply projects Design and restructuring of water supply / sewerage / drainage / distribution network projects Experience in Operation & Maintenance of Urban Water Supply / sewerage / drainage schemes.
8.	Urban Transportation Specialist	Masters Degree in Transportation Planning/ Transportation Engineering/ Highway Engineering/ Highway Planning	<ul style="list-style-type: none"> 10 years of experience in the area of Urban Transport Planning Experience in urban Mobility Plan preparation, Transit Oriented Development (TOD) / Experience in designing and implementing mass transport systems and traffic management systems.
9.	Urban Planner / Architect / Urban Designer	Masters in Urban Planning / Urban Design / City, Regional Planning	<ul style="list-style-type: none"> 12 years' experience in integrated land use planning Experience in GIS based land use planning, preparing Master Plans for large cities / urban areas / industrial townships Experience developing Development Control Regulations Knowledge of land management tools like land pooling, TDR etc experience in Urban research
Support Team (Development and Implementation Professional)			
1.	Sr. Business Analyst/ BPR Specialist	Degree in BE/B-Tech. with MBA	<ul style="list-style-type: none"> 10 years' relevant experience Worked in similar capacity for at least 7 years. Should have worked on at least 1 (one) urban project in government sector in similar capacity.

S. No.	Position	Minimum Qualification	Minimum Experience
2.	Landscape / pavement design Architects	Master's degree in Landscape Architecture with Degree in Architecture	<ul style="list-style-type: none"> • 10 years' relevant experience • Experience in preparation of technical requirement plans / document pavement design /street scape/ landscaping etc.
3.	Construction Manager	<ul style="list-style-type: none"> • Graduate in Civil Engineering 	<ul style="list-style-type: none"> • 10 years' experience in construction management of Urban Service delivery projects (Water Supply/ Sewerage/ Drainage / Drainage/ Solid Waste Management). • Knowledge of different construction methodologies. • Knowledge of latest Project Management tools
4.	Urban Designer	Masters in Urban Design/Architecture or equivalent	<ul style="list-style-type: none"> • 10 years experience in Urban Designing of a heritage precinct / green field / brown field in urban area. • Experience in Transit Oriented Development • Experience in Local area planning,
5.	Waste Water Expert	Graduation in Civil/ Environmental Engineering with experience of design and monitoring of waste water projects at ULB level.	<ul style="list-style-type: none"> • 15years experience on water sourcing, planning & management of water supply and waste water projects including recycling and reuse of waste water and rainwater harvesting
6.	Solar Energy/ Renewable Energy Expert	B-Tech in Electrical/ Power Engineering / related sector	<ul style="list-style-type: none"> • 7-12 years experience in power projects viz., planning/designing for power generation, transmission and distribution.
7.	Electrical Engineering Expert	B-Tech in Electrical/ Power Engineering	<ul style="list-style-type: none"> • 12 years similar experience
8.	Affordable Housing Expert	Masters in Urban Planning/Housing	<ul style="list-style-type: none"> • 10years experience in Urban Poverty Alleviation • Experience in affordable housing, low cost housing and cost effective construction technology, slum improvement plan preparation • Knowledge of housing finance etc.

S. No.	Position	Minimum Qualification	Minimum Experience
9.	Communication Specialist	Bachelors Degree in mass communication	<ul style="list-style-type: none"> 5 years similar experience Experience in management of multimedia and activities pertaining to social media
10.	Environment / Solid Waste Management expert	Postgraduate in Environmental Planning / Engineering / Environmental Sciences	<ul style="list-style-type: none"> 10 years' experience in conducting EIA, environment modelling & preparing Environmental Management plans, Clean Development mechanism.
11.	Social Development Specialist	Masters Degree or equivalent in social development disciplines	<ul style="list-style-type: none"> 10 years experience in years experience in Urban Poverty Alleviation. Experience in urban social welfare projects/ community mobilization/ Social Development Sub-Plan
12.	PPP Expert	MBA (Finance) / CA/CFA or equivalent	<ul style="list-style-type: none"> 10 years' experience in project funding, structuring of PPP projects. At least developed 02 (two) PPP projects for which the Concessionaire has been appointed and the projects are in execution and/or in operation mode.
13.	Structural Engineer	Masters in Structural Engineering	<ul style="list-style-type: none"> 10 years related. Should have the experience in structural design of infrastructure projects.
14.	ICT Expert / Urban Smart Solutions Expert	Masters in Computer Application/ B-Tech in Computer Science/ IT	<ul style="list-style-type: none"> 10 years in implementing ICT projects in Urban area. Extensive experience in designing and implementing smart solutions.
15.	Business Analyst/ Junior BPR Specialist	MCA / Post Graduate in any discipline with diploma / degree in IT / BE/B-Tech.	<ul style="list-style-type: none"> 10 years experience in similar field
16.	Information Security Systems Expert	MCA/ B Tech / M Tech in IT with certification in CISSP/ CCSP	<ul style="list-style-type: none"> 10 years experience in similar field
17.	Solution Architect	Degree in Information Technology/ Electronics	<ul style="list-style-type: none"> 10 years experience in similar field

S. No.	Position	Minimum Qualification	Minimum Experience
		Engineering or equivalent	
18.	Networking & IT Infrastructure Specialist	MCA/ B Tech / M Tech in IT with certification in CCNA	<ul style="list-style-type: none"> 10 years experience in similar field
19.	Video Analyst)	B-Tech in Information Technology/ Electronics & Communication Engineering / Electronics Engineering / Computer science	<ul style="list-style-type: none"> 12Years experience in IT field Minimum 2 years of experience in designing and implementation of large ITMS/ BMS including Surveillance & Video Analytics
20.	IoT, IoE, AoT Specialist	BE/B-Tech in Information Technology/ Electronics & Communication Engineering / Computer science	<ul style="list-style-type: none"> 12Years experience in IT field Minimum 3 years experience in implementing IoT/Machine to Machine (M2M) solutions and knowledge of the IoT/M2M market and ecosystems Minimum 3 years experience in a client facing role demonstrating presentation skills and the ability to communicate with client management and executives 3 years experience in applying analysis skills and the ability to develop processes
21.	Disaster Management Expert	Graduates with a master's in disaster and emergency management	<ul style="list-style-type: none"> 5 years experience in relevant field
22.	Horticulture Specialist	BE/B-tech/BSC in Horticulture	<ul style="list-style-type: none"> 10 Years experience in relevant field.
23.	GIS & Remote Sensing Expert	Degree in Geography	<ul style="list-style-type: none"> At least 10 years of experience in working on similar projects (i.e. use of remote sensing & GIS technology in urban sector projects) Knowledge of major GIS software products, GPS, total station, coordinate reference systems, satellite remote sensing technology and GIS applications.

S. No.	Position	Minimum Qualification	Minimum Experience
24.	Auto CAD Engineers	Diploma in CAD with 05 years of professional experience.	<ul style="list-style-type: none"> Experience as Auto CAD Engineer in Infrastructure related projects.
Support Team (Facilitation & Supervision)			
25.	Assistant Construction Manager	<ul style="list-style-type: none"> Graduate in Civil Engineering 	<ul style="list-style-type: none"> 5 years' experience in construction management of Urban infrastructure Service delivery (Water Supply/ Sewerage/ Drainage/ Transportation/ Drainage/ Solid Waste Management, street lights, solar energy)
26.	Support Engineer	Graduate Engineer (relevant branch).	<ul style="list-style-type: none"> 5 years' experience in construction management of Urban infrastructure Service delivery
27.	Research Associate	Degree in any discipline	<ul style="list-style-type: none"> 5 Years in Relevant Field
28.	Draftsman	Diploma in Civil/ Mechanical Engineering or ITI in draughtsman Civil/mechanical	<ul style="list-style-type: none"> 02 Years experience in preparation of CAD drawings
29.	Quantity Surveyor	Diploma/ Degree in Civil Engineering	<ul style="list-style-type: none"> 5 years experience for diploma holder or 3 years experience for degree holder in quantity surveying, preparation of BOQ, variations, etc. Knowledge of modern and digital survey techniques Knowledge of preparation of CAD drawings
30.	Surveyor	Diploma in Civil Engineering / ITI in Civil	<ul style="list-style-type: none"> 5 years experience in survey with modern digital survey instruments Experience in surveying with Total Station/ micro-station/auto level etc. Knowledge of preparation of drawings on CAD.
31.	Office Manager	10 th Class	-
32.	Office support Staff	To be indicated by the Consultant	-