

L'Œuvre architecturale de Le Corbusier

UNE CONTRIBUTION EXCEPTIONNELLE
AU MOUVEMENT MODERNE

[14] Complexe du Capitole

CHANDIGARH / INDE

Proposition d'inscription sur
la Liste du patrimoine mondial,
présentée par l'Allemagne,
l'Argentine, la Belgique, la France,
l'Inde, le Japon et la Suisse.

PLAN DE GESTION

CAPITOL COMPLEX CHANDIGARH



NOMINATION DOSSIER

TRANS BORDER SERIAL INSCRIPTION
ON THE WORLD HERITAGE LIST

ARCHITECTURAL WORKS OF
LE CORBUSIER



Architectural and Urban Works of Le Corbusier- The Capitol Complex, Chandigarh

THE MANAGEMENT PLAN



Vision statement for the management plan

‘The vision of the Management Plan is to conserve, protect and enhance the Outstanding Universal Value of the Capitol Complex Chandigarh as a living repository of the largest and greatest urban composition of Le Corbusier, sustainably managing the balance between preservation and use. The Complex shall continue to be a celebration of democracy and an embodiment of the spirit of modern architecture inspiring present and future and generations of architects and planners across the world, highlighting the architectural contribution of the city of Chandigarh.’

OVERVIEW

Current management and use of the site

The nominated property is a 'living heritage site', housing the Assembly, the High Court and the Secretariat buildings and being extensively used as the administrative head of the city by the states of Punjab and Haryana.

The site is facing challenges of hosting multiple stake holders, an increasing pressure on space usage, escalating need for parking and the conservation of the exposed concrete of the edifices, monuments and plaza. Concerns of security have lead to limited accessibility, introduction of grills on openings and bifurcation of the pedestrian plaza. The backdrop of the Shivalik range is vital to the integrity of the layout.

A detailed assessment of the present condition of the site and its components forms the basis for this management plan. The areas of study are the current usage and management of the site, its stake holders, present means of protection and legislation, visitor management, risk preparedness measures, and financial layout for implementation of the management plan.

Stakeholders

The protection and upkeep of the nominated property is the responsibility of the Chandigarh Administration. The Secretariat and Assembly buildings are shared by **the states of Punjab and Haryana** making them interested state parties. The largest section of stake holders comprises of the nearly 12,000 **employees /staff** working in all the three buildings¹. The Chief Ministers of Punjab and Haryana and other senior officers also have their offices in this building. There are a large number of **visitors** who come for purely official work to the Secretariat building while around 5,000 **litigants and advocates** visit the High Court daily besides the **judges**. The Assembly building has the lowest number of employees and visitors. National and International **Tourists, researchers and historians** have an interest in exploring the entire property.

Due to the sensitive functions of all the buildings the Complex requires high security for which various security agencies like Chandigarh Police, ITBP and CISF² have close to 1,300

¹ **High Court** – Employees- 3,920 and 68 Judges.,Daily Visitors: 5,000;**Secretariat**: Total Employees- 7,500,Daily Visitors: 2,700; **Assembly** : Employees- 337 (Punjab) +322(Haryana)=657Daily Visitors: 35

² ITBP- Indo Tibet Border Police-700 personnel ,CISF-Central Industrial security Force-500 personnel

security personnel deputed in and around the nominated property. Since they are responsible for round the clock security of the Complex their accommodation and allied services need to be catered to.

Ownership of property and buffer

The entire **nominated property** including all its components- movable and immovable are under the jurisdiction of the Chandigarh Administration, Government of India. The buildings are jointly used by the states of Haryana and Punjab but the ownership is with Chandigarh Administration.

A major part of the land in **the buffer** is also under the Chandigarh Administration. Towards the west, the Rajindra Park houses a helipad, the Chandigarh Club which is on lease and temporary hutments of security personnel. The Eastern buffer defined by the existing road leading to Kaimbwala village comprises of largely forested area in which is located Nek Chand's famous Rock Garden³ the land being owned by the Chandigarh Administration. Towards the south the proposed buffer includes the Uttar Marg and the low rise- low density residential Sectors 2, 3, 4 and 5. The privately owned residences are either freehold plots or on lease⁴. However all the developments of these Sectors are regulated by the Punjab New Capital (Development and Regulations) Act 1952.

1.1 Objective of the Management Plan

The Management Plan is the principle mechanism to conserve, safeguard and promote the Outstanding Universal Value of the Nominated Property. It is formulated with a view to address the following aspects:

- a) **Ensure** sustainable development as one of the important mandates of the World Heritage properties.
- b) **Provide** a cycle of planning, implementation, monitoring, evaluation and feedback;
- c) **Present** an accountable, transparent description of how the management system functions;
- d) **Substantiate** / spell out the allocation of necessary resources

³ The Rock Garden has been absorbed in the Chandigarh Master Plan 2031 and future expansion has not been permitted with a view to control its sprawl.

⁴ All residential plots sold before 1973 were freehold after which the option of converting the lease to freehold with a conversion fee was allowed.

- e) **Enable** sensitisation and understanding of the property by all stakeholders
- f) **Equip** personnel for capacity-building to manage the site responsibly.

1.2 Structure of the Management Plan - The Management mechanism proposed for the nominated property ensures sustenance of the Outstanding Universal Value, and the attributes of the property with respect to the Criteria ii and vi under which the property is proposed for inscription to the World Heritage List. The aspects covered under the Management Plan have been derived from the attributes of the Nominated property, the unique conditions of authenticity and integrity as well as the broader urban setting upon which the OUV relies. The plan works as a two way mechanism;

- i) To safeguard and provide adequate protection to the OUV of the nominated property as a long term commitment and to conserve the authenticity and integrity of the property. Since the property also serves as a living heritage with development pressures, the management plan works as a tool to sensitively balance change with preservation within the property and its buffer,
- ii) Valorise its significance to the user, tourist and architectural research community as it is a resource of education and knowledge by the attributes of its architectural and urban vocabulary, construction systems and techniques.

The key aspects of the Management Plan are:

2.0 Policies and Framework of Legislations

3.0 Conservation Plan

4.0 Maintenance and Management

5.0 Development Plan for Buffer Zone

6.0 User, Tourist, Visitor Management

7.0 Risk management

8.0 Interpretation, Research & Outreach

9.0 Financial Management

2.0 POLICIES AND FRAMEWORK OF LEGISLATIONS:

The nominated property is under the ownership of the Chandigarh Administration and hence enjoys a strong legal and regulatory protection. Given the status of Chandigarh as a Union

Territory, it is under the direct administrative and financial control of the Central Government. Among the key stakeholders of the nominated property are the state governments of Panjab and Haryana, and the Registrar Panjab and Haryana High Court.

At the city level, all urban development is guided by Le Corbusier's Master Plan of 1964⁵. Corbusier's "Edict of Chandigarh" in which the Capitol Complex is designated a special area, though not a legislative Act also continues to act as a guiding force⁶. Presently, the management of the Nominated Property and the Buffer is taken care by the existing legislative framework i.e. The **Capital of Panjab (Development & Regulations Act), 1952**.

The entire Capitol Complex has been approved as a **Grade I Heritage precinct** by the Government of India on the recommendation of the Expert Heritage Committee⁷. It falls within Heritage Zone⁸. This protection is also extended to include the entire nominated property, the edifices, piazza, monuments, hillocks and associated landscape elements. Each of the three edifices and the four monuments has also individually been accorded Grade 1 status as part of Chandigarh's Enlisted Heritage⁹. The boundaries of the buffer lie within the Heritage Zone 1 and are governed by an extensive set of regulations specifying the heights, building lines etc. Detailed guidelines are in place for the buildings along the principal V2s and V3s of the city which form the southern and western edges of the nominated property.

The Chandigarh Administration is in the process of finalising the Draft Chandigarh Master Plan 2031 which has given due emphasis to the protection of Chandigarh's enlisted heritage and the recommendations of the Expert Heritage Committee. The Draft Heritage Conservation Regulations are also being prepared. Any further intervention/development within the Nominated Property and the Buffer will be regulated through the overall supervision of the notified Chandigarh Heritage Conservation Committee- CHCC (2011).

The Nominated Property shall form part of the Eco-sensitive Zone around the Sukhna Wildlife Sanctuary on the north of the Capitol Complex through a proposal submitted to the Government of India for approval and shall accord additional protection to the property and its buffer.

5 The layout and planning of all the areas is in compliance with the original layout of Corbusier.

6 "Edict of Chandigarh", 1952, Le Corbusier, Chandigarh.

7 The Expert Heritage Committee for the city of Chandigarh was constituted on 23.12.2011 to designate heritage status and thereby protect, conserve and enhance the modern heritage value of the ensembles, precincts and properties.

8 Under the Chandigarh Master plan 2031, development has been regulated by the designation of various Heritage Zones and the Capitol Complex lies in Zone 1.

9 Enlisted Heritage of Chandigarh was prepared in 2010 to accord heritage status to various buildings and ensembles in the city as Heritage Grade 1,2 and 3. The Capitol Edifices and Monuments fall in Grade 1 which enjoys the highest level of protection of heritage zones and precincts.

Besides these measures other regulations which accord protection to the Nominated property include: The Chandigarh Tree Preservation Order, 1952, The Chandigarh Advertisement control Order, 1954, Central Air Prevention and Control of Pollution) Act, 1988, declaring Chandigarh as an “Air Pollution Control Area” and a Notification declaring the nominated property in the silent zone. A portion of the nominated property also falls within the Sukhna Catchment area.

The future legislative tools to ensure Management of the site while protecting its attributes shall include a proposed Conservation Plan and Architectural Regulations.

Issue 1: *Framing Heritage Regulations for the Nominated Property and Buffer Zone respecting the OUV and the broader setting as well as the authenticity and integrity and the values of the property by the formulation of a Conservation Plan and Architectural Regulations.*

Policy 1(a): The proposed policies of the Management Plan should be formally incorporated within the local development framework and within other statutory plans as Architectural Regulations for the formal protection of the site and the buffer zone areas.

Policy 1(b): The review and updating of statutory protection should be continued through national and state level designations and policies.

3.0 CONSERVATION PLAN

The nominated property is presently in active use and in a good state of conservation and the authenticity and integrity of the original works is largely maintained. The form, structure and articulation of the facades are well conserved as no vertical or horizontal extension is permitted¹⁰. The exposed concrete structures do not show signs of severe structural damage or deterioration although there are signs of weathering of the concrete at some places. Some balconies of the north western facade of the Secretariat have been partially enclosed for demand for additional office space, attached toilets and restrooms. Internal changes such as erection of partitions, addition of utilities and ducts for air conditioning have been made to address needs of human comfort. Many of these changes are reversible and are to be dealt in a sensitive way to resolve the user needs. All the originally conceived structures are intact and periodic maintenance has been done.

¹⁰ The Expert Heritage Committee has recommended that there shall be no further horizontal or vertical extension on the **campus** in view of its Heritage Grade I Status. To cope with the growing footfall, safety factors and holding capacity of the site, fire, and medical emergencies, alternate sites in the city are recommended for use.

In 2010 an extensive visual survey was conducted by a Sub-Committee of the Expert Heritage Committee¹¹ w.r.t. Restoration and Preservation of Building materials- concrete and brick masonry buildings which included assessment of the condition and state of concrete in the Secretariat, Assembly, and High Court buildings.

An overarching Conservation Plan based on the detailed condition assessment of the three edifices and the smaller but equally important elements of the Nominated Property is proposed to be drawn up. Besides being a tool for Periodic Reporting and Monitoring the state of the Property, the Conservation Plan will serve to protect, safeguard and conserve the Nominated Property at three levels:

a) **Overall Geometrical Composition and layout** (derived from the modular and golden section) of the nominated property keeping the OUV intact and maintain the spatial and visual integrity of the site within the boundaries of the site itself. Maintenance of the spatial relationship with the city as its symbolic and geographic head, and, maintaining its visual links to the Shivalik Hills further north is vital. To complete the overall composition as planned by Le Corbusier the unbuilt edifice of the Museum of Knowledge shall be constructed in its predefined location falling within the Northern Buffer Zone.

b) **The Built Fabric** comprises of the form, structure, materials and finishes of the three Edifices and the four Monuments. The external and internal components such as brise soliel, gargoyles, enamel door to the Assembly, motifs in wet concrete and shuttering patterns, lighting fixtures, tapestries, etc also form an integral part of the built fabric. The incomplete Martyr's Memorial and the Geometric Hill shall be completed as per the original design.

c) **Landscape** includes the Plaza and the associated urban landscape elements i.e. plantation, indigenous groves, mounds, water bodies, lighting fixtures, pedestrian pathways. Some insensitive plantations and maintenance works, security barricades obscuring the views of the edifices and affecting the OUV are being addressed as per the original scheme. Execution of the missing pathways and forecourts is also being undertaken. To reinforce the pedestrian priority and continuity along the plaza a dedicated parking space for the judiciary has been planned in the Buffer zone which would address the present ingress/movement of vehicles on the plaza towards the High Court.

3.1 Within the Conservation plan, areas which are intrinsic to the OUV and authenticity and integrity of the property and which pose challenges to its management are being specifically addressed. These are:

3.1.1 Concrete Conservation: The Nominated Property represents the first ever large scale use of exposed reinforced concrete in India which heralded a unique architectural and urban vocabulary of building types and forms. Together, the edifices and monuments represent the plastic inventiveness of their creator as well as display the varied qualities of concrete as a material for construction, sculpture and art. The edifices and the monuments are in fairly good state but require a Conservation and Management plan for their upkeep and long-term preservation. The Chandigarh Administration based on the visual Condition Assessment report of the Subcommittee of the Expert Heritage Committee has signed a Memorandum Of Understanding with CBRI, Roorkee (Central Building & Research Institute) to carry out a detailed condition assessment for all the three edifices and give recommendations regarding the measures and retrofitting needed for the preservation and conservation of concrete and to address high seismic risk to the property. The Secretariat building is being assessed first to be followed by the other two edifices.

Best international practices with other participating countries of the Trans National Dossier will be utilised to guide the conservation process.

A Concrete Conservation and Preservation Plan should be worked out with the help of experts to guide all future interventions and retrofitting.

3.1.1.2 Conservation of Other Elements: The Open Hand Monument in Bronze shall be conserved using state of the art methods and practices. The tapestries, the movable and immovable furniture, up lighters, etc shall also be restored and maintained.

3.1.2 Architectural Regulations- In the absence of **any** stipulated regulations current piecemeal interventions within the existing built fabric (external facades, interior floors, walls and ceilings) to address needs of human comfort and safety in work areas (air conditioning, fire detection and mitigation systems), and demand for additional office space by way of enclosing balconies are beginning to impact the values of the property. The Government of India has approved the broad framework of development guidelines including scope of changes permitted in the Heritage Grade 1 for Chandigarh's Enlisted Heritage¹². However, to monitor and regulate development in the Nominated Property and as a tool to manage change in a living site, the Conservation Plan would extend itself to the preparation of detailed Architectural Regulations with the approval of the CHCC. These would include:

a) 'No construction' zones shall be specified
b) Regulations for essential addition /alteration to ensure harmonious interventions and no adverse impact to the OUV, integrity and authenticity of the nominated property. All proposals shall be approved by the CHCC.

¹² Approved Report of the Expert Heritage Committee, 23 December, 2011.

Issue 2: *Conservation of built fabric of the edifices, monuments and plaza should be of primary importance for protecting the OUV of the property. Concrete Conservation should be taken up in collaboration with scientific organisations incorporating Best Practices.*

Issue 3: *Original composition and landscape design of the site needs to be completed, conserved and restored to fulfil conditions of authenticity and integrity as well as to preserve the views and vistas. Pedestrian continuity has to be restored as per the original layout.*

Issue 4: *The smaller elements need special attention and expertise for their care, management and conservation since they contribute to the integrity of the property.*

Issue 2: The conservation of built fabric of the edifices, monuments and plaza

Policy 2(a): A **detailed condition assessment** – both visual and structural of the entire property should be undertaken for the entire site and its components to arrive at the interventions needed and further long term plan of action. Digital images and documentations shall be compiled as part of a continuous process of assessment, updating of data and recording of maintenance and conservation works being carried out.

Policy 2(b): The exposed concrete of the edifices, monuments, plaza and smaller elements like the brise soleil, is one of the most important OUV of the property hence its conservation should be ensured through regular maintenance and sensitive interventions based on the observations of the condition assessment report.

Policy 2(c): Authenticity and integrity of the original and existing fabric should be ensured while carrying out maintenance and repair works adopting international best practices with respect to materials and techniques. The approval of CHCC should be taken before undertaking any such works.

Policy 2(d): Where the original materials and finishes within the site have been compromised through non-authentic materials, inappropriate additions and alterations and incongruous detailing, historic character and detail will be reintroduced wherever and whenever possible. The changes and alterations should be categorised as reversible or irreversible and appropriate measures taken.

Policy 2(e): All interventions to restore the original materials and finishes shall be done under the guidance of technical experts and should be identifiable on close inspection and/or through rigorous documentation.

Policy 2(f): Regular assessment of efficiency and adequacy of services such as water supply, drainage, electricity etc needs to be done keeping in mind the growing requirements of users, visitors and tourists.

Policy2(g): Since the site is and shall continue to be extensively used, incorporation of modern day services like computer networking, increased electrical load, air conditioning, lighting and illumination, modern means of security and surveillance etc need to be incorporated sensitively to maintain the functionality of the complex with minimum damage to the built fabric.

Policy 2(h): In the monument of the Open Hand, the concrete should be sensitively repaired where needed and the bronze Hand should be restored. The Martyrs' Memorial should be completed as per the original drawings and details. The Tower of Shadows should be properly maintained and the ramp connecting it to the Geometric Hill should be cleared of vegetation and repaired sensitively. The Geometric Hill should be completed along with the sun dial as per the original drawings.

Policy 2(i): Guidelines specifying monthly, quarterly, half yearly and annual tasks of maintenance works and the agency responsible for the same should be prepared clearly outlining areas of overlap and shared responsibility. The means and methods of assessing the completion and success of tasks should be clearly defined by each agency.

Issue 3: Conservation and restoration of original composition and landscape design of the site

Policy 3 (a): No addition -temporary or permanent should be allowed in the site which is not as per the original concept. Additions and alterations needed to restore the composition should be duly approved by the CHCC and carried out in the original spirit of the complex.

Policy 3 (b): Additions and alterations to the original landscape concept should be removed and the incomplete connections established to confirm to the original scheme of vehicular and pedestrian access.

Policy 3 (c): The primary purpose of the pedestrian plaza should be restored by restricting vehicular access and parking while removing barricades and check posts.

Policy 3 (d): All new works should be in consonance with the management plan to conserve the values of the site.

Policy 3(e): Vistas and views should be maintained and reinforced by clearance of unsolicited vegetation and previous unplanned plantation. Removal of excess vegetation should be carried out regularly.

Policy 3 (f): A comprehensive drainage plan for the entire site should be prepared. The floor level of the plaza and abutting roads relative to the buildings should be maintained in all exercises of future re carpeting.

Issue 4: Management and conservation of the smaller elements

Policy 4(a): A detailed inventory of heritage furniture and original light fixtures should be prepared recording their present condition and location.

Policy 4(b): The present condition of the tapestries in the High Court and in the Assembly should be assessed by an expert and measures to be taken to restore them should be outlined.

Policy 4(c): The lighting along the plaza should be restored as per original scheme.

4.0 MAINTENANCE & MANAGEMENT

For the living heritage of Capitol Complex where user and visitor footfall is growing, it is vital to have a comprehensive maintenance and management plan which ensures not only the functional efficiency but also enhances the OUV and values of the site. Presently there is no regular system of maintenance and management of various components of the property such as maintenance of the edifices, the plaza, the monuments, landscape elements, pedestrian vehicular movement lines, solid waste management etc. The staffing levels for maintenance are also insufficient and at times insensitive while carrying out regular maintenance. Some piecemeal and adhoc maintenance works including laying of concrete in a patchwork fashion, repair and restoration which do not conform to the original forms, material and design etc. have adversely affected the aesthetics and forms. Concrete surfaces which are not periodically maintained show blackening, and algae growth. Insensitive plantation and unruly undergrowth attacking the concrete at places on the plaza is also due to lack of proper maintenance. Sheds for storage of building material though temporary but continue to be sited on the plaza, thereby intruding into the overall spatial composition. The Maintenance and Management Plan would address these issues for the entire property as a comprehensive plan under the responsibility of the Chief Engineer UT.

4.1 A **Comprehensive Maintenance plan** for the entire property with stakeholders who are responsible co-partners and participate in the smooth implementation of the Management Plan shall be prepared with the approval of the CHCC.

4.2 Maintenance and Management of the Edifices – The Chandigarh Administration with the prior approval of the CHCC will undertake the management of the edifices after ascertaining the requirements from the governments of Punjab and Haryana and the Registrar Punjab and Haryana High Court. However, the daily maintenance and repair works would be carried out by a competent authority as per Architectural guidelines approved by the CHCC.

4.3 Parking and Circulation - As a comprehensive exercise the management of pedestrian and vehicular circulation is dealt under *the section on Traffic and Parking Management*.

4.4 Landscape and Plantation – While the Conservation Plan would oversee the landscape and plantation, implementation of the day to day maintenance would be the responsibility of the Horticulture Wing under the Chief Engineer, UT, Chandigarh. The maintenance of landscape and green areas, water bodies, plaza and monuments which is presently undertaken by different divisions of Horticulture Wing of Department of Engineering will be addressed in a holistic manner in the Conservation Plan.

4.5 User Management and Sensitisation - The users (workers, employees to the High Court, Assembly and Secretariat) to the property need to be sensitised towards the values of the property to instill a sense of pride so that they feel responsible towards the management of their property.

With increased visitation, staffing levels (maintenance and tourist facilitation staff) will be augmented and sensitised towards the OUV, attributes and values of the nominated property. Sensitisation drives, and activities to promote the property by the Tourism Department, is being dovetailed into the annual activity calendar of the nominated property in conjunction with the activities of the Tourist Information Centre recently opened near the entrance to the property. This Centre is an infrastructure management tool to facilitate the visitors and researchers towards the guided interpretation of the nominated property.

Issue 5: A Comprehensive Maintenance Plan for the entire property needs to be prepared for the all the components of the nominated property. Sensitisation of users and maintenance staff should be ensured.

Issue 5: Preparation of Maintenance Plan

Policy 5(a): A regular system of maintenance and management of various components of the property such as the edifices, the plaza, the monuments, landscape elements, pedestrian vehicular movement lines, solid waste management etc should be prepared.

Policy 5(b): Augmentation and sensitisation of staff to carry out regular maintenance while preserving the property.

5.0 DEVELOPMENT PLAN OF THE BUFFER ZONE

The Buffer extends all around the nominated property with an intention to protect, safeguard and enhance the OUV, integrity, setting and appreciation of the site. The boundaries of the Buffer are easily identifiable. The northern buffer is defined by the existing mango groves, the Southern comprises the residential Sectors 2, 3, 4, and 5 which are three storied low-rise developments of government and private properties. This part of the buffer further connects the nominated property to the city along the ceremonial avenue - the V2 Jan Marg. The eastern buffer includes the High Court extension and the Rock Garden while the Rajindra Park defines the western buffer.

Together the northern, eastern, and western buffers comprise the Capitol Parc and form part of the Heritage Zone 1 approved by the Government of India on the recommendations of the Expert Heritage Committee. The entire buffer zone has been given title of the Corbusian Chandigarh¹³. Since the Buffer lies within the boundary of the Union Territory of Chandigarh, its management is regulated through the existing legislative framework i.e. The Capital of Panjab (Development & Regulations Act), 1952. The Expert Heritage Committee has recommended Heritage Status to some government and private properties within the Southern Buffer some of which face the Uttar Marg running parallel to the nominated property and are visible from the nominated property. Concept approval from CHCC has also been recommended for properties flanking other V2 and V3 roads of the Sectors to preserve the nominated site's urban imageability. The green belts along the sectors are also being preserved. Further, all development within the Buffer will be regulated under the overall supervision of the Chandigarh Heritage Conservation Committee (2011). The Draft Master Plan 2031 has sensitively integrated the Expert Heritage Committee recommendations for the Buffer which will provide statutory backing upon notification.

5.1 The Development Plan of the Buffer would address the following:

5.1.1 The Buffer zone shall be sensitively and carefully handled to ensure the protection of the visual and spatial setting of the nominated property by ensuring that no high-rise/incongruous development is allowed to pose a threat to the planned vistas, the serenity

¹³ *Corbusian Chandigarh* which comprises sectors 1-30 of the Phase 1 of the city, should continue to retain its lowrise character and no private building be allowed to rise higher than three floors as already permitted. Recommendations of the Expert Heritage Committee approved by the Government of India.

of the property and the backdrop of the mountains. Detailed Heritage Regulations for the Buffer Zone vis a vis views, scale, height, mass, materials and physical distance are to be taken into consideration while considering the appropriateness of any future intervention in this Buffer Zone.

5.1.2 The green open and spacious ambience of the nominated property and the buffer zone shall be protected through the Draft Chandigarh Master Plan-2031 which stipulates all green areas as inviolable landuse thus ensuring the preservation of the eastern, northern and western buffer zones comprising natural greens, the Rock Garden and part of the city green- the Leisure Valley.

5.1.3 The requirement of additional space to accommodate the functions of the High Court shall be met within the eastern buffer for which holistic planning has been undertaken with the involvement of the Members of the CHCC to ensure harmonious development. To reduce pressure on the nominated property and the immediate buffer some functions of the High Court, Secretariat are also been planned elsewhere the City.

5.1.4 The ongoing promotion of the Nominated Property by the Chandigarh Administration and further its World Heritage Status is bound to bring in increased visitation. The augmentation of the tourists' facilities shall be sensitively addressed in the southern buffer. Further given the multiplicity of its users, sensitisation of the various stakeholders to develop a deeper understanding of shared value of the nominated property is needed.

5.1.5 Traffic Management within the buffer is presently in order, since the area falling within the Buffer is largely residential with state owned government housing pockets as well as privately owned large villas. The rise in traffic and parking needs due to increased tourists and visitors in future needs the creation of additional parking lots within the buffer, especially along the V2 Jan Marg. This would require careful and sensitive intervention for selection of parking sites. Likewise, there would be a need for monitoring traffic along tourist circuits linking other tourist spots within the buffer to the Nominated Property.

Issue 6: *The development and management of buffer zone areas should be integrated with site planning and development to preserve spatial and visual setting of the site. Regulations under the CHCC for developments within the Buffer are essential.*

ISSUE 6: Integration of buffer zone areas with site planning and development

Policy 6(a): Developments in the buffer zone should ease the development pressure on the site without compromising on the character and OUV of the nominated property.

Policy 6(b): All additions and alterations in the buffer zone should follow the prescribed development norms and further be approved by the CHCC.

Policy 6(c): Buildings of Heritage Value in the buffer zone like the Pierre Jeanerette House should be integrated into the tourist circuit of the site and its surroundings.

Policy 6(d): An Interstate Coordination plan should be developed with Punjab to ensure low rise- low density development in the area beyond the northern buffer till the foothills of the Shivalik Hills.

6.0. USER, VISITOR AND TOURIST MANAGEMENT

The dual aim of the user and tourist management plan is to cater to the large number of users of the site (office goers, litigants and visitors to the High Court) as well as the tourist influx expected due to its recognition as an Architectural and Urban icon of Modern Heritage. The three edifices, though in varying degrees, reflect stress induced by the increasing user pressure¹⁴-especially in the High Court, (even though an extension serving extended judicial functions besides courtrooms has been added in the Buffer Zone).

The main areas of concern regarding user, visitor and tourist management are:

- 6.1 Requirement of additional work space.
- 6.2 Infrastructural needs
- 6.3 Pedestrian & vehicular accessibility to and within the site.
- 6.4 Parking for users and visitors.

6.1 REQUIREMENT OF ADDITIONAL WORK SPACE

The three edifices are under pressure for augmenting work space and service areas as they are serving the growing population of the city and the region with the maximum pressure being felt in the High Court. The requirement of additional space to accommodate the functions of the High Court shall be met within the eastern buffer for which holistic planning has been undertaken with the involvement of the Members of the CHCC to ensure

¹⁴ This has been partially addressed by relocating extended functions of the High Court, and Secretariat elsewhere in the city.

harmonious development. To reduce pressure on the nominated property and the immediate buffer some functions of the High Court, Secretariat are also been planned elsewhere the City.

6.2 INFRASTRUCTURAL NEEDS

Due to manifold increase of users and visitors the **infrastructure needs** for water supply, drainage, electricity etc. are under stress effecting the smooth functioning of the activities within the edifices.

Provisions for fire fighting and **risk preparedness** and disaster management require dedicated and additional resources which need to be factored in while augmenting the essential services.

Interventions for **human comfort and work efficiency** with adoption of modern technology like computer networking, power back up etc. are necessitating alterations and additions to the built fabric.

Modern means of surveillance and security should be explored to replace the check posts and barricades while reducing the manpower needed. Adequate infrastructure for the security personnel responsible for round the clock security of the campus and allied services should be accommodated without compromising on the aesthetics of the site.

Additional **public conveniences** are needed for visitors and tourists. The infrastructure facilities for tourists include the recent Tourist Information Centre.

Issue 7: Infrastructural augmentation of the property should be undertaken to address developmental pressures and increased visitation while ensuring the preservation of the authenticity and integrity of the site and its components.

Issue 7: Infrastructural augmentation of the property

Policy 7(a): Augmentation of physical infrastructure for water supply, drainage, electricity, disaster management and risk preparedness, landscaping, maintenance of the plaza, garbage collection etc should be commensurate to the future requirements and sensitively incorporated into the built fabric with the approval of the CHCC.

Policy 7(b): The increasing space requirements of the High Court and Secretariat should be sensitively accommodated in the buffer and preferably be planned elsewhere the City.

Policy 7(c): Modern means of surveillance and security should be explored.

6.3 PEDESTRIAN & VEHICULAR ACCESSIBILITY TO THE PROPERTY

The nominated property is **easily accessible** via the ceremonial Jan Marg that connects it to the City Centre, Sector 17 as well. Public transport is easily available along the Uttar Marg which links the site to the rest of the city via the vertical roads that terminate on it. The Uttar Marg also connects the site to the highly visited Sukhna Lake and Rock Garden. Special buses are run to and from the ISBT¹⁵, Sector 43 and the local Bus stand at Sector 17 to cater to the large number of staff and visitors from the neighbouring states of Punjab and Haryana. All modes of transport like the cycle rickshaw, auto rickshaw and buses are available. The Hop on Hop off bus conducts trips to the nominated property as part of the tourist circuit of the city.

Except for the stretch of the road in front of Sukhna Lake that sees a huge rush and congestion of traffic on weekends, the roads leading to the site are not under traffic pressure. Directional signage is prominently positioned across the city at all the important nodes of circulation and activity.

Battery operated carts from the Sukhna Lake have recently been introduced to make the travel on the Uttar Marg easier and sustainable. Pedestrian and bicycle connectivity from the main nodes is possible and being facilitated further by strengthening the existing pathways along the major arteries.

Permissions to access the Complex the buildings are granted at the Tourist Information Centre.

b) Accessibility within the Site

Presently **pedestrian continuity** on the 450m long plaza linking the edifices and the monuments has been disrupted by undesirable vegetation, barricading and security checks. Some of the pedestrian connections and forecourts to monuments which have not been executed need to be constructed to complete the pedestrian connectivity envisaged in the original plan of Corbusier. **Vehicular circulation** leading to the separate parking lots for all three edifices is under stress due to heavy traffic.

¹⁵ Inter State Bus Terminus

Issue 8: The approach to the nominated property from the city should be strengthened to ensure easy access to the large number of staff, official visitors, and litigants and tourists.

Issue 9: Pedestrian circulation within the site should be restored by completing the pathways and stopping vehicular ingress and parking on the plaza.

Issue 8: Facilitating easy access to the site.

Policy 8(a) Connectivity to the major nodes like the City Centre, inter state and local bus stand and railway station should be strengthened by augmenting public transport to facilitate the office goers and visitors.

Policy 8(b) The nominated site should be integrated into a tourist circuit including the Sukhna Lake, Rock garden and Leisure valley and connected by means of public transport.

Policy 8(c) Public transport like auto rickshaws and taxis should be provided with dedicated parking.

Policy 8(d) The connectivity to the proposed Metro Rail Station¹⁶ originating near the Nominated site should be factored in while making the comprehensive accessibility plan for the site.

Issue 9: Restoring pedestrian circulation within the site

Policy 9(a) The originally perceived circulation pattern as distinctly separate vehicular and pedestrian movement should be restored by removal of barricading and check posts and disallowing vehicular access and parking on the plaza.

Policy 9(a) The pedestrian connections should be completed as per the original plan and cleared of vegetation to facilitate complete access and connectivity within the site.

¹⁶ Covering a distance of 12.49 kms, the first corridor of Metro rail will stretch from Chandigarh's Capitol Complex to SAS Nagar's Sector 70. The project's second corridor will start from Mullanpur and end at the grain market in Panchkula's Sector 20 - 25.7 km in length. The first corridor is expected to be operational by 2018.

6.4 PARKING FOR USERS AND VISITORS

The parking demands of the users and visitors to the three edifices are growing with that of the High Court being the maximum¹⁷. Presently the parking of Judges' cars in front of the High Court is causing pedestrian- vehicular conflict on the plaza. Dedicated parking for Judges has been created in the Buffer Zone to discourage parking of cars on the plaza.

Additional parking for users and visitors is being accommodated in the Buffer areas but is still falling short.

Parking for tourists is being met through dedicated parking provided alongside the Tourist Information Centre, the nearby parking spaces along the Uttar Marg (Rock garden, Sukhna Lake) and Jan Marg. Public transport, taxi, auto and battery operated tourist carts are also available and parked at designated points for the convenience of the tourist.

Issue 10: The increasing pressure on parking for the High Court and Secretariat buildings should be addressed without compromising on the layout of the site.

Issue 11: With additional traffic generated by increased tourist visitation to the Nominated Property, parking needs will have to be addressed and resolved using areas in the buffer zone.

Issue 10: Additional Parking for the High Court and Secretariat

Policy 10(a): To decrease the pressure on parking within the limited space available, public transport between the nominated site and important nodes in the city should be strengthened in terms of numbers, options and frequency to discourage use of private vehicles. The launch of the Metro Project will ease the pressure on parking in the future.

Policy 10(b): Multi -level parking in the buffer zone should be considered- for the High Court and Secretariat building after approval of the CHCC to ascertain that it does conflict with the views and vistas of the nominated site.

¹⁷ The High Court has been provided with a multilevel subterranean parking in addition to the existing surface parking . For the High Court alone, as per figures approximately 2, 90,000 sq.ft of area has been projected to park 3500-4000 four wheelers and 25000-3000 two wheelers. Source- Chandigarh Masterplan 2031.

Issue 11: Parking needs due to increased tourist visitation

Policy 11(a): The existing parking lots of the adjoining Rock Garden, Sukhna Lake and parking lots along the Uttar Marg should be managed in a holistic manner to cater to increased visitation to the site. Battery operated carts from these parking lots should be increased to facilitate access to the property.

Policy 11(b): Parking near the Tourist Information Centre should be limited to the present planned area. Larger tourist transport should be parked in adjacent lots listed above.

7.0. RISK MANAGEMENT

Being extensively used as the administrative head of the city and falling in the highly sensitive seismic zone IV, the nominated property faces many risks and threats which become more critical due to the high density of users and the sensitive nature of use. The edifices planned and constructed almost 60 years back do not comply with present day norms of fire safety and emergency evacuation.

The main issues to be addressed in holistic risk management plan for the entire site and its components are;

7.1 Fire Safety: The multi storied Secretariat building and the High Court have a high density of staff, and visitors with large amount of inflammable paper work. Present Fire fighting systems have been incorporated in an incongruous manner affecting the aesthetics of the interiors and exteriors. Fire audit reports of the three edifices have been prepared by the Fire Department outlining measures to be taken for fire safety and evacuation. The implementation of these measures shall be undertaken by the Engineering Department in consultation with the Department of Urban Planning and the subsequent approval of the CHCC.

Mock fire drills have been conducted to verify the efficacy of the evacuation in the High Court. The nearest fire station is close by and easy access to the site is possible. However, unhindered internal circulation for fire tenders within the property needs to be planned out.

7.2 Seismic activity: Acknowledging the location of the property in the high risk seismic Zone 4, detailed condition assessment of the edifices is being carried out by Central Building Research Institute, Roorkee (CBRI) to check the structural stability of the over 60 year old

edifices. The buildings do not show any adverse affects of previous earthquakes in the region.

7.3 Man made threats: Being the Administrative head of the city the Complex is vulnerable to arson and terrorist attacks. Security concerns have lead to the deputation of over 1300 security personnel all over the site. The hutments and barricades are compromising the aesthetics of the property. Evacuation and relief plan in case of emergency needs to be worked out for all eventualities.

Issue 12: A Risk Management Plan to counter all possible hazards such as fire, disaster and emergency situations in and around the Nominated Property should be formulated and implemented for the improved safety and visitation to the property.

Issue 12: Formulation and implementation of Risk Management plan

Policy 12(a): The preparation of a holistic risk management plan for the entire site and also the independent edifices should be initiated under the guidance of experts. The plan should cover measures to minimise and efficiently handle threats of fire, natural calamities, weathering of materials and man made threats.

Policy 125(b): The risk management plan should be dovetailed into the city level planning

Policy 12(c): Modern means of surveillance should be sensitively incorporated in the site to enhance security without compromising the accessibility and overall aesthetics of the site.

Policy 12(c): Mock drills should be conducted periodically to assess the risk preparedness of all agencies concerned in diverse situations of threat to the property and its users.

8.0 INTERPRETATION, EDUCATION AND OUTREACH

The ensemble of the edifices, monuments and landscape elements of the Capitol Complex represents the most tangible manifestation of the architectural and urban design theories of Le Corbusier and has as such become a Mecca for architects, historians, researchers and scholars from all over the world. Fortunately, a vast amount of deeply researched and authentic literature is available documenting all the aspects of the Capitol Complex. The

Chandigarh Museum, Sector 10 and the Le Corbusier Centre, Sector 19¹⁸, showcase extensive drawings, models and literature for the awareness of the citizens and visitors regarding the nominated property. The Museum at the High court is a source of information regarding the same.

Numerous publications and research papers on the various aspects of the Capitol Complex are constantly being produced by national and international authors. The Complex has also been the subject of many undergraduate, post graduate and doctoral Thesis locally and globally.

However, awareness regarding the Complex is limited to scholars and historians and needs to be augmented through frequent heritage walks, dissemination of information to students and citizens through agencies like INTACH¹⁹ to promote it.

Issue13: *Integration of educational and outreach programmes should be geared towards sensitising the visitors, users and stake holders regarding the heritage of the property.*

Issue14: *Scholarly research should be encouraged and facilitated in all possible ways to ensure the long term protection of its OUV and its subsequent management as it is a living heritage vulnerable to development pressures.*

Issue 15: *A comprehensive interpretation plan should be developed through various interpretive mediums including audio visuals, signage, publications, brochures and a dedicated website.*

Issue13: Integration of sensitising the visitors, users and stake holders

Policy 13(a) To ensure that the heritage value of the Capitol Complex is understood and appreciated by a larger section of society, visitors and stakeholders a multi pronged approach should be adopted to create awareness and outreach regarding the site.

¹⁸ Le Corbusier Centre is housed in the building formerly called Architect's office in which Corbusier and his associates worked on the Chandigarh Project.

¹⁹ INTACH- Indian National Trust for Art and Cultural Heritage.

Issue14: Encouraging and facilitating study and research

Policy 14(a): Study and research on all aspects of the nominated property should be encouraged by providing access to both the property and previous research and literature already available. A dedicated Heritage Cell should facilitate dissemination of knowledge and provide avenues for further research.

Policy 14(b): Short and long term research projects in partnership with national and international schools of architecture, Fondation Le Corbusier ,France and other leading historians and scholars should be initiated and promoted by the Chandigarh College of Architecture and Chandigarh Administration.

Issue 15: Developing a comprehensive interpretation plan

Policy 15(a): The Department of Tourism should augment the literature available on the nominated property in the form of publications, brochures and a dedicated website highlighting the aspects of the Capitol Complex in an easily understood and visually attractive format to facilitate its interpretation at a local, national and global level.

Policy 15(b): Adequate signage in the city and within the Complex should facilitate awareness and understanding of the site.

9. FINANCIAL MANAGEMENT

The Chandigarh Administration earmarks sufficient funds for maintenance, conservation, valorisation and tourism promotion of the Nominated Property. A dedicated budget is made available for the annual short and long-term maintenance of the Nominated Property. An amount of Rs, 1583.55 lacs has been allocated by the Finance Department, U.T. for maintenance of all Govt. Non-Residential Buildings for the current financial year 2013-14. No separate allocation for the Capitol Complex has so far been provided. An expenditure of about Rs. 23.98 crore has been incurred in the last 10 years for the maintenance of Capitol Complex. However, keeping in view the nomination to World Heritage Status, funds commensurate with the needs of the Management Plan should be allocated in a time bound manner to sustain long-term conservation of the site. Further, inscription as a World Heritage Site will help perpetuate success in attracting funding for conservation and enhancement from a range of sources due to the importance and prestige associated with an internationally important site of Corbusier's architectural legacy.

Issue 16: A detailed Financial Plan for the implementation and sustenance of the management plan should be worked out to support the short and long term conservation and promotion of the site.

ISSUE16: Financial plan for the implementation and sustenance of the management plan.

Policy 16(a): The expected expenditure for the necessary conservation measures and for implementation of the management plan should be worked out in consultation with the diverse agencies involved.

Policy 16(a): A dedicated and detailed financial plan for the implementation and sustenance of the conservation plan, management plan, interpretation plan etc. should be created besides the funds needed for regular upkeep and maintenance of the site.

IMPLEMENTING THE MANAGEMENT PLAN

The policies and strategies outlined in the management plan need to be diligently implemented and closely monitored to ensure the effective and holistic conservation and promotion of the nominated property of Capitol Complex. This section outlines the provisions and programs that would ensure the same with suitable time frames for implementation and periodic monitoring at appropriate intervals.

RESPONSIBILITY OF IMPLEMENTATION OF THE PLAN

The Chandigarh Administration and its various Departments are responsible for the implementation of majority of the policies as the ownership and administrative control of the nominated property lies with them. However there are many other local and interstate agencies whose active participation and commitment is required for the successful implementation and sustenance of management plan. The process shall be initiated and completed in the following manner:

1. The first step would be the formal framing and implementation of policies and strategies, including committed partnerships with agencies and stake holders involved. The formal framing of the policy would involve:
 - a. Defining the role and responsibility of each agency and agreeing on specific tasks and time lines.
 - b. Specifying tangible targets and indicators of progress.
 - c. Detailing the resources –manual, financial and administrative- for achieving the outlined tasks within the time frame agreed on.
2. Conducting surveys, condition assessment, maintenance works, etc for framing further policies and actions.
3. Monitoring and measuring implementation of those policies and actions set out in Part 5 by following up with the stakeholders responsible for implementing the action plan.
4. Finalising the indicators for each subset and agreeing on the format of annual reports on the progress of each.
5. Formalising the establishment of a dedicated World Heritage Centre after the inscription of the site to oversee the implementation of Management plan.
6. Continuous and regular appraisal of the indicators for revising the policies as and when needed to address new issues arising post inscription.

The tabulation below outlines the key roles/areas of action of agencies involved indicating areas of individual responsibility of Departments within the Chandigarh Administration.

AGENCY/ STAKEHOLDER	ROLE/AREA OF ACTION
Chandigarh Administration	<ul style="list-style-type: none"> • Policy decisions regarding management of additions/alterations to buildings in consultation with stakeholders and state parties. • Interstate negotiations for management of area beyond northern buffer and shared buildings in nominated property. • Decision for removal of barricade on plaza. • Empowering a Statutory body (Chandigarh Heritage Conservation Committee, CHCC) for overseeing all future interventions. • Establishment of World Heritage Centre post inscription.
Department of Urban Planning	<ul style="list-style-type: none"> • Co-ordinating for completion of plaza and circulation as per original scheme. • Co-ordination with Horticulture Department to implement a landscape plan as per original scheme
Interstate committee with Punjab and Haryana	<ul style="list-style-type: none"> • Additions and alterations in Assembly & Secretariat Building • Maintenance and protection of buffer
Registrar ,High Court	<ul style="list-style-type: none"> • Circulation and parking of Judges' vehicles. • Decisions on removal of Additions and alterations.
Department of Tourism	<ul style="list-style-type: none"> • Visitor /Tourist Management • Promotion of the site at local and global level.
Department of Engineering	<ul style="list-style-type: none"> • Maintenance and repair of buildings, monuments and plaza. • Implementation of the Landscaping Plan as per original scheme and its upkeep by Department of Horticulture.
Department of Finance	<ul style="list-style-type: none"> • Budgetary allocation for maintenance works and additional staff for upkeep of property-annual amount, long term financing of retro fitting etc.
CBRI ²⁰ , Roorkee.	<ul style="list-style-type: none"> • Detailed condition assessment of buildings as/ MOU.
National Disaster Management Agency	<ul style="list-style-type: none"> • Risk preparedness assessment, conducting mock drills, and suggestions for retrofitting.
UT Fire and Emergency Department,	<ul style="list-style-type: none"> • Risk preparedness, mock drills, and suggestions for retrofitting.
Security agencies- Chandigarh Police, ITBP ²¹ , etc.	<ul style="list-style-type: none"> • Access of users, visitors while maintaining security. • Clearing of barricades on plaza. • Relocation of hutments/tents. • Establishing zones of security for each agency involved.
Chandigarh College of Architecture	<ul style="list-style-type: none"> • Capacity building, seminars, courses on conservation of concrete, heritage management etc.

²⁰ Central Building and Research Institute, Roorkee, Uttarakhand.

²¹ ITBP- Indo Tibetan Border Police

Monitoring indicators

Regular and systematic monitoring to assess how the values of the nominated site are being maintained over time and to measure whether the objectives of the Management Plan are being achieved is critical to the conservation of the Outstanding Universal Value of the nominated property. The indicators for monitoring the site are the factors that protect the authenticity and integrity of the site and thus measure the success or otherwise of the Management Plan. Effective monitoring of these indicators should help in assessing progress on site, future needs and formation of future annual and five year plans. The table below enlists the indicators for monitoring, frequency of monitoring and the authority responsible for the same.

OUV related aspect to be monitored	Monitoring Indicators	Frequency of Monitoring	Authority Responsible/ Location of records
PLANNING AND POLICY	Notification and implementation of the proposals of Chandigarh Master Plan 2031,	Once with regular monitoring of implementation	Chandigarh Administration, Interstate Development Committee, Registrar of High Court, Department of Tourism.
	Recommendations of the Expert Heritage Committee	As required	CHCC ²²
ACCESS AND VISITATION	Update of increase in number of visitors	Annually and as per need	Department of Tourism
	Review of facilities for visitors	Annually	Department of Tourism
	Procedure for security checking	Annually and as per need	Department of Tourism and Security agencies
CONSERVATION	State of exposed concrete of the buildings and monuments	Annually	Chief engineer's office, CBRI, Roorkee .
	Structural stability of the buildings	Once for all and later annually	CBRI, Chief Engineer, UT.
	State of Bronze of the Open Hand and foundation plaques	Once with annual monitoring	Heritage Cell.
	Documentation of later additions and alterations with pictures and data	Once with regular monitoring	Department of Urban Planning, Engineering Department, CCA/ Heritage Cell.
	Removal of present violations, ensuring sensitive interventions in future.	As per progress of works.	CHCC, Engineering Department, Department of Urban Planning / Heritage Cell.
FURNITURE AND FIXTURES	Inventory and Stock taking of heritage furniture both built in and mobile ,tapestries, art work, light fixtures, enamel door etc.	Once with Annual monitoring.	Department of Urban Planning, Engineering Department, CCA/ Heritage Cell.

²² Chandigarh Heritage Conservation Committee, which shall regulate and monitor the work undertaken by all agencies with respect to all the indicators.

	Repair and maintenance	Complete stock Once and later as per need.	Interstate Development Committee, Heritage Identification committee.
MANAGEMENT OF BUFFER ZONE	Change in land use if any within the defined buffer zone and of areas impacting the OUV.	As per request from stakeholders and foreseen threats.	CHCC, Chandigarh Administration.
FINANCIAL RESOURCES	Funds for maintenance and upkeep	Monthly	Department of Finance and Chief Engineer, UT.
LANDSCAPING AND PLANTATION	Completing the pathways and connections.	Once	Department of Urban Planning, Department of Engineering.
	Pruning of trees and removing unwanted growth to maintain vistas.	As per need	Department of Urban Planning, Horticulture wing of Department of Engineering.
	Maintenance and upkeep of plantation and greens.	Daily and As per need	Horticulture wing of Department of Engineering.
PEDESTRIAN PLAZA	State of concrete finish	Annually	Chief Engineer's office
	Accessibility across plaza	Once Annually	Security agencies- ITBP, Chandigarh Police etc.
	Water bodies in front of Assembly and High Court building	Once, maintenance as per need	Department of Engineering.
	Removal of Parking on plaza	Once	Chandigarh Administration, Registrar, Punjab and Haryana High Court.
RISK MANAGEMENT	Record of accidents and threats in and around the site	Monthly	Department of Engineering, Department of Traffic ,Department of Home, ITBP, Chandigarh Police , CRPF
	Checking risk preparedness/mock drills	As per disaster management plan	Deputy Commissioner ,Chandigarh Administration with National Disaster Management Authority, New Delhi, ITBP, Chandigarh Police , CRPF, etc.
	Reviewing security and emergency plans	Annually	Deputy Commissioner Chandigarh Administration with National Disaster Management Authority, New Delhi, Chandigarh Police, CHCC.
	Retrofitting for risk management and seismic threats	Implemented and monitored as per need	Department of Engineering CHCC, CBRI
RESEARCH AND CAPACITY BUILDING	Review of research projects and publications on the nominated property.	Ongoing and continuous.	Heritage Cell, CBRI, CCA. NITTTR²³

²³ National Institute Of Teachers Training and Research, Sector 26, Chandigarh.

Reviewing the Management Plan

The above indicators shall be used to assess the progress and performance of the Management Plan as per the time schedule mentioned. Moreover, the nominated property is a living heritage and constantly under developmental, environmental and political pressures- some of which cannot be anticipated at the time of finalising the Management Plan.

Developments in the future and emergence of new areas of concern may necessitate revisiting certain policies and creation of new ones to address the changed realities.

To address both the scenarios the Management Plan shall thus be reviewed after five years in 2019.

To synchronise the Management Plan for the Capitol Complex with that of the Trans National Serial Nomination, issues common to all the other properties shall be incorporated as per guidelines received.

TIME FRAMES FOR THE COMPONENTS OF THE MANAGEMENT PLAN

The key aspects of the Management Plan have been elaborated in the preceding section. The following table shows how these aspects are linked and proposed to be implemented in conjunction with each other, and their anticipated time frames of implementation.

ASPECT OF MANAGEMENT PLAN	SUB SECTION	TIME FRAME Implementation envisaged as : i)-- one time intervention, ii) --Ongoing, iii)--Review task iv)--To be dealt as specific projects based on/dovetailed with /subhead of a larger plan such as the Conservation Plan/ Maintenance plan
3.0 CONSERVATION PLAN	b) The Built Fabric- The incomplete Martyr's Memorial and the Geometric Hill shall be completed as per the original design.	i) 1 year (one time intervention)
	c) Landscape- i) Execution of pathways, forecourts to complete the overall composition. ii) Removal of barricades, iii) Removal of construction sheds, temporary material stores on the plaza iv) Incongruous plantation and undergrowth obscuring salient and important views.	i) 0-6 months ,(already underway) and then ongoing ii) 1 year iii) 1 year iv) Immediate and continuous
	3.1 Concrete Conservation i) To ascertain the structural stability of the Secretariat and subsequently the High Court and the Assembly, vis a vis the high intensity seismic zone.	18 months for the Secretariat and then extend to the High Court & Secretariat
	ii) A Concrete Conservation and Preservation Plan should be worked out with the help of experts to guide all future interventions and retrofitting.	5 years
	3.1.1.2 Conservation of Other Elements –Bronze Open hand Monument, Tapestries, movable, immovable furniture, uplighters	2 years
	3.1.2 Architectural Regulations	2 years, Review every 3 years or earlier as/need .

4.0 MAINTENANCE & MANAGEMENT	4.1 Comprehensive Maintenance Plan	<p>i) 2 years (Engineering department is currently conducting a survey of the nominated property)</p> <p>ii) Review every 18 months or earlier if specific issue is to be addressed.</p>
	4.2 Maintenance & Management of the Edifices	1 year ,an ongoing exercise .
5.0 DEVELOPMENT PLAN – BUFFER ZONE	Buffer Management Plan would include sub plans for traffic management, tourist circuits, Architectural and Urban Design guidelines /regulations ensuring streets views, vistas, with an overarching responsibility to safeguard the larger setting of the nominated property.	<p>1 year</p> <p>Review Every 5 years</p>
6.0. USER, VISITOR AND TOURIST MANAGEMENT	6.1 Requirement of Additional Work Space. A Comprehensive plan for the High Court extension located in the Buffer Zone is under preparation.	<p>2 years</p> <p>Review every 5 years</p>
	6.2 Infrastructural Needs i) Augmentation of tourist facilities, ii) Modern means of surveillance and security iii) Signage at appropriate locations and design.	<p>i) 1 year</p> <p>ii) 2 years</p> <p>iii) 1 year</p>
	6.3 Pedestrian & Vehicular Accessibility to the Property: With additional traffic generated by increased tourist visitation to the Nominated Property, parking needs will have to be addressed and resolved using areas in the buffer zone.	i) 1 year
7.0. RISK MANAGEMENT	7.1, 7.2 Disaster Mitigation, management and Risk Preparedness to cater to Fire and Seismic Safety. Risk preparedness against threats to loss of property and life.	<p>i) 5 years</p> <p>ii) Review every 3-5 years</p> <p>iii) Risk preparedness drives for users to be dovetailed with annual activity calendar of the Nominated Property.</p>
8.0 INTERPRETATION, EDUCATION AND OUTREACH	a) Dedicated Website for the Nominated Property to generate awareness towards its interpretation and to enhance visitation at the local, national and global levels.	<p>i) 6months -1 year</p> <p>ii) Review and update every year with the uploading of the annual activity calendar of the Nominated Property.</p>
9. FINANCIAL MANAGEMENT	Financial plan for the implementation and sustenance of the management plan to be drafted as a consultative process with various agencies/ government departments involved with the management of the Nominated Property	<p>i) Annual Plan as a component of the city's annual budget</p> <p>ii) Special funding may accrue post inscription.</p> <p>iii) Review annually to assess special financial inputs to dedicated projects in the Conservation plan, Buffer Development plan etc. Risk Preparedness and annual financial plan.</p>

Fig 1.Delimitation of Nominated property and its buffer.

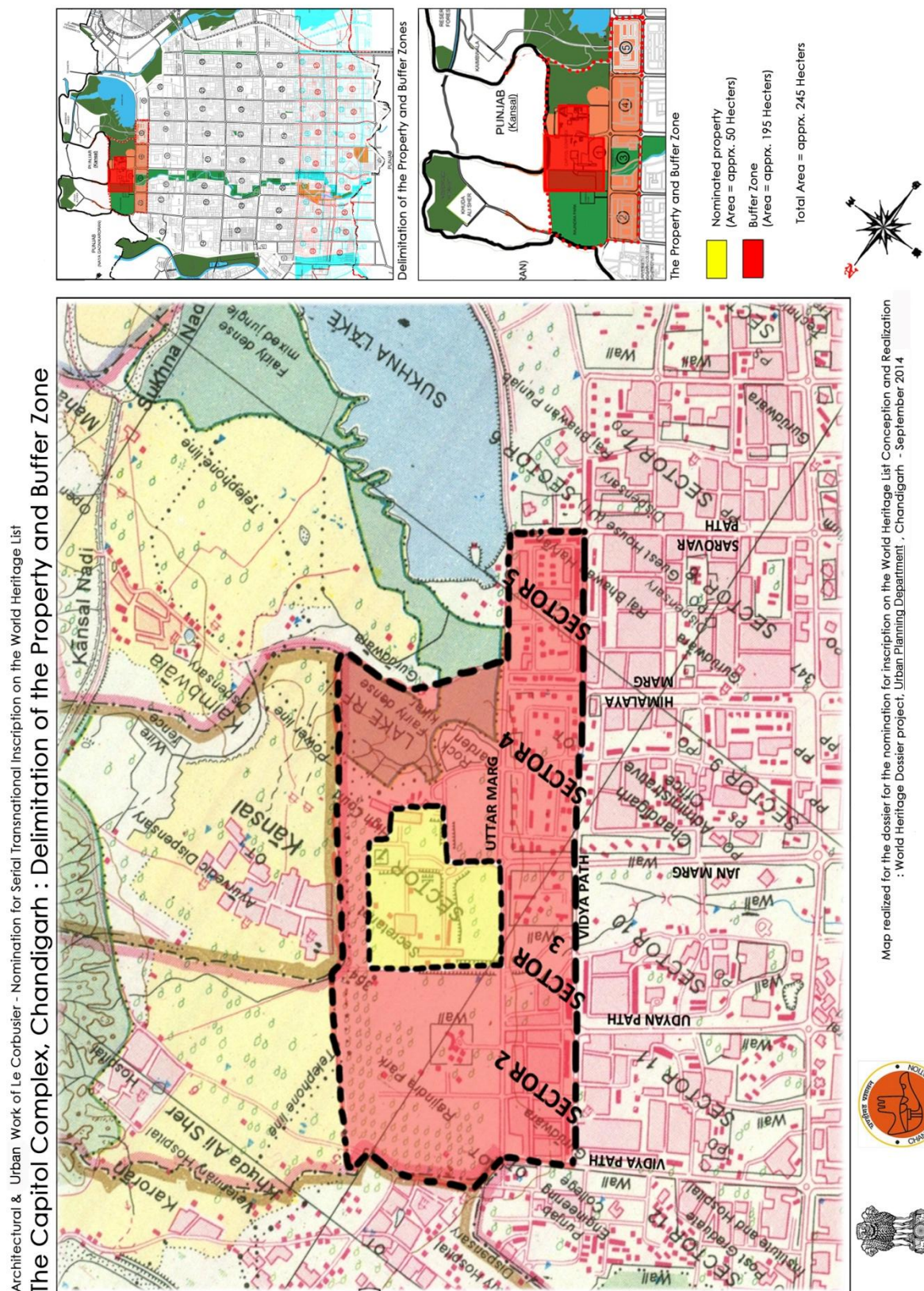
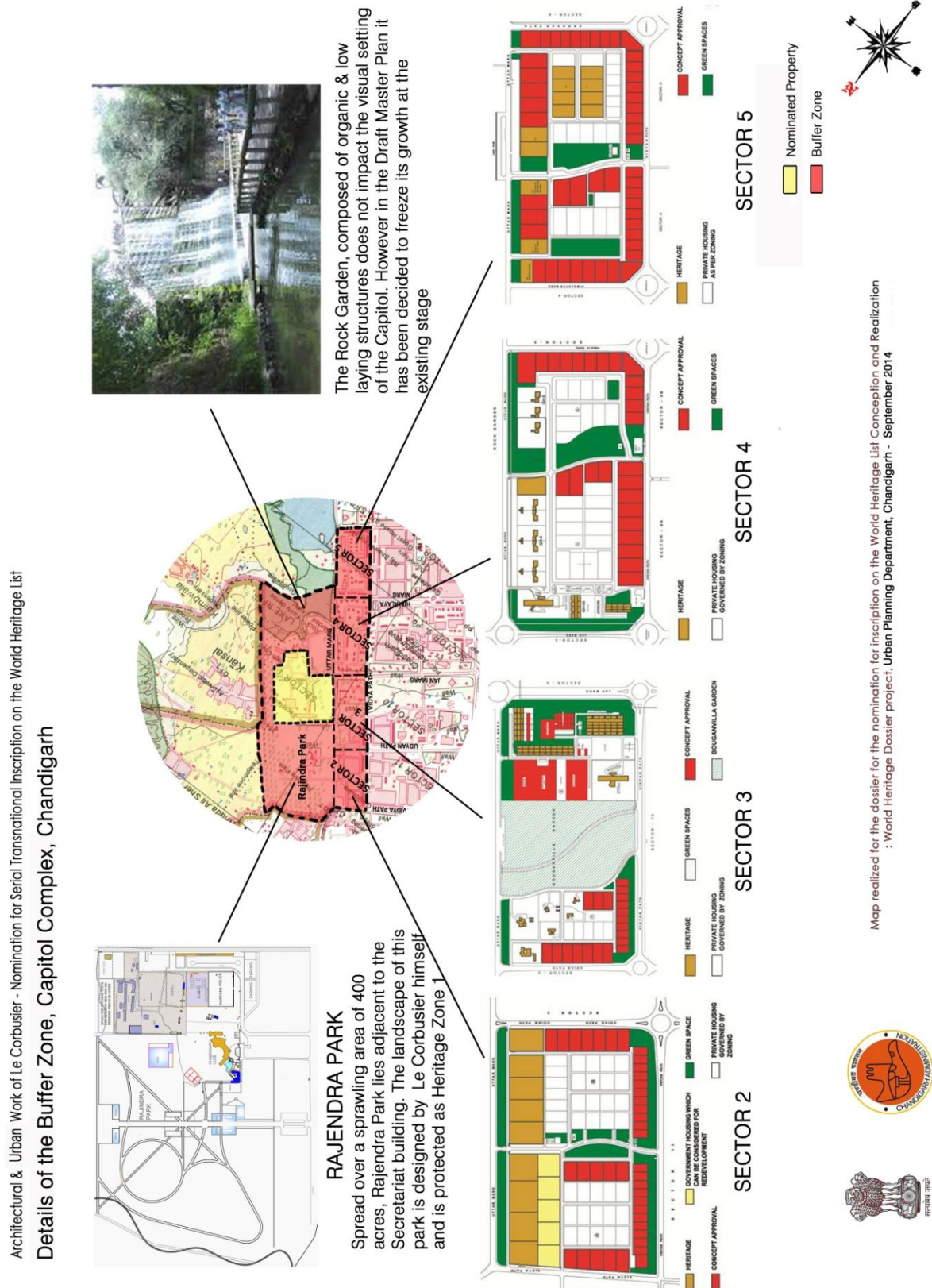


Fig.2 Details of Buffer Zone on all sides of the Nominated property.



EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

The nomination of the Capitol Complex under the Transnational Serial Nomination of the Architectural and Urban works of Le Corbusier is an important step towards highlighting the global impact of Corbusier's theory and work. The Capitol being the largest ensemble of Corbusier's oeuvre needs to be conserved for future generations as a manifestation of all that he stood for and achieved in his seminal works. From a local point of view the submission of Capitol Complex shall pave the way for recognition of the Heritage of Modern Architecture not just in Chandigarh but all over India and the world at large.

Statement of Outstanding Universal Value

The Capitol Complex in Chandigarh is one of the most monumental architectural compositions of Modern Urbanism by Le Corbusier- an important part of his global legacy arising out of a unique geo-political and cultural setting. It showcases landmark innovations in the fields of urban planning, architectural theory and practice and, advancement in building materials and technology.

The Assembly, the High Court and the Secretariat buildings celebrating the three pillars of democracy are skilfully juxtaposed in a vast pedestrian plaza. Monuments articulating the plaza include the Open Hand, the Martyrs Memorial, the Geometric Hill and the Tower of shadows. Together, the monuments and the edifices of the Complex represent the most tangible manifestation of the architectural and urban design theories of Le Corbusier. The unprecedented amalgamation of the principles of CIAM (Congress Internationale d'Architecture Moderne), with the aspirations of the newly created democracy culminated in a prototype which continues to deeply impact the development of architecture and urban planning all over the world.

Considered as his most mature plastic creations, each of the edifices and monuments has a unique sculptural form based on its function and a strong symbolism inherent in the form derived for each building. Here one sees a tangible manifestation of the principles of **Purism and Brutalism** uniquely tempered by the use of colours to offset the monochromatic finish of the exposed concrete. The

extensive use of brise-soliel and double roofs for solar control, orientation and design of fenestrations for trans-aeration, reflecting pools for rain water harvesting and thermal sinks, terrace gardens etc. were technological innovations for climate responsive architecture. The creation of complex forms based on a simple structural order within the limited resources of

time, money and manpower was a landmark in the advancement of architectural techniques in Chandigarh, India and the world at large.

The authenticity and integrity of the Capitol Complex is well maintained in the realised components i.e. the three edifices and the four monuments as well as the general layout of the Capitol Complex.

The key issues that directly impact site management have been broadly categorised into eight main sections in the management plan. These are:

1. Planning and policy
2. Conservation
3. Buffer zone management.
4. Traffic and parking
5. Risk management
6. Research
7. Tourism and visitor management
8. Financial management

The greatest challenges to the protection and management of this living heritage which sees the influx of thousands of staff, visitors and tourists each day is the issue of security since the complex houses important state functions. The increasing pressure on the limited space due to the growing needs and adaptation of the building to meet basic comfort levels has lead to some alterations and additions. Weathering and wear and tear of the extensively used exposed concrete due to the extreme tropical climate and excessive use by both users and visitors, has lead to its deterioration and decay at many places. Many policies and measures are already in places which are further being elaborated in the holistic management plan under the heads enlisted above with an aim to create a healthy balance between preservation and use while maintaining the inherent values of the site.

PART 1

VISION FOR THE MANAGEMENT PLAN

Aims and purpose of the Management Plan

Vision statement for the management plan

The structure of the plan

Aims and purpose of the Management Plan

The nominated property of the Capitol Complex, Chandigarh presents multiple challenges to its holistic management and conservation. Being the Administrative head of a growing modern city it is continuously facing pressures of development adaption to modern ways of working, increasing concerns of security and weathering due to the harsh Tropical climate. The Management Plan aims to lay out policies that shall become the blueprint for further action to

1. Preserve and conserve the OUV of the property.
2. Outline interstate and inter departmental cooperation for the maintenance and management of the site and its buffer.
3. Detail out future programs and measures needed for the sustainable development of this living heritage without compromising on its historic, aesthetic and functional values

Vision statement for the management plan

‘Our vision is to conserve, protect and enhance the outstanding universal value of the Capitol complex Chandigarh as a living repository of the largest and greatest urban composition of Le Corbusier, sustainably managing the balance between preservation and use. The Complex shall continue to be a celebration of democracy and an embodiment of the spirit of modern architecture inspiring present and future and generations of architects and planners across the world, highlighting the architectural contribution of the city of Chandigarh.’

The structure of the plan

The Management Plan is presented in six parts that are as follows:

Part 1: **Vision And Aims:** Outlines the vision and consequent long and short term aims for the site.

Part 2: **Site description** highlights the various aspects that contribute to the OUV of the site and hence form issues for the management plan.

Part 3: **Current management and use of the site**; assesses the present aspects related to the same to enlist areas and levels of intervention needed.

Part 4: **Key Management Issues**: outlining the action needed regarding factors impacting the OUV of the site as enlisted in Part 3.

Part 5: **Policies And Actions**: provides a policy framework and an action plan within a specified time frame to address the key management issues and to achieve the objectives of the Management Plan

Part 6: **Implementing the Management Plan**: explains the ways of monitoring and reviewing the holistic implementation of management plan to sustain the OUV of the site.

PART 2

DESCRIPTION AND SIGNIFICANCE OF THE SITE.

2.1 Identification of the site

2.2 Site description

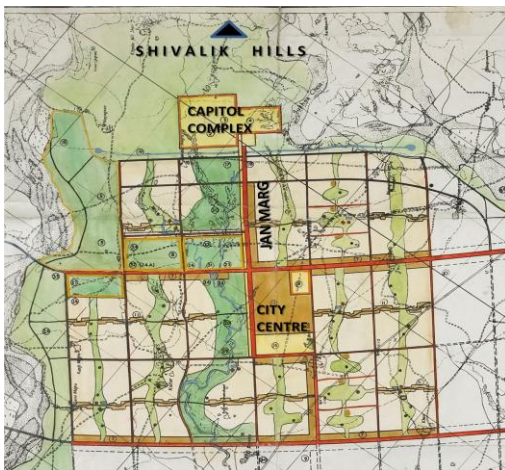
2.3 Statement of significance

2.1. Identification of the property

Country:	India
State, Province or Region:	Chandigarh, India
Name of property:	The Capitol Complex, Chandigarh
Geographical Coordinates:	30° 44' 25" N, 76° 48' 30"E

2.2 Brief description of Site

Site and Setting



The nominated property of the Capitol Complex is strategically and physically located at the geographic and topographic 'head' of the city- against the backdrop of the Shivalik Hills. The Complex, along with the 'Rajendra Park' on its West and the 'Sukhna Lake' on its East, form the Capitol Parc, which stretches across the width of the city. The Complex is connected

with the rest of the city through the ceremonial boulevard, Jan Marg. Towards the North the vast expanse of the site seamlessly flows towards the foothills of the Shivalik Hills which form the natural backdrop of the Complex. Towards the **south**, running parallel to the Capitol Parc is the Uttar Marg, V3 leading further to the Rock garden and the Sukhna Lake, flanked by the low rise and low density residential Sectors.

Site components

The nominated property comprising the Capitol group of buildings includes the three monumental edifices of the Secretariat, the High Court and the Assembly spread over 50 hectares. A vast elevated pedestrian esplanade linking the buildings is interspersed with the Monuments of the Open Hand with the Trench of contemplation, The Martyr's Memorial, The Tower of Shadows, The Geometric Hill, and the reflecting pools of the High Court and the Assembly. The vast concrete

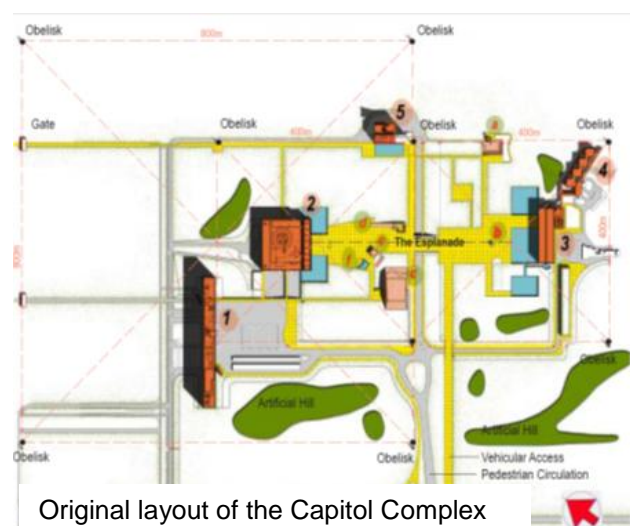
esplanade facilitates uninterrupted pedestrian linkage between the High Court and the Assembly and is a central design feature. All vehicular circulation is arranged, and dug out where necessary, at 5m below the esplanade. Strategically located artificial hillocks created out of excavated ground from the Capitol site create a “play of forms’ and help to create vistas that gradually unfold the various components to the visitor. Mango groves existing at the site were retained and integrated into the design to form the natural boundary towards the High Court.

The natural backdrop of the Shivalik Hills, though lying beyond the boundaries of the site, and the uninterrupted vistas form the intangible yet critical part of the composition and thus become an important element in the Outstanding Universal Value. Also of relevance are the other creations of Corbusier and smaller elements like pieces of furniture, lighting fixtures and works of art, including the famed enamel door for the Legislative Assembly, monumental tapestries and bas relief signs and symbols embossed in the concrete.

Site planning:

The layout is based around an invisible geometry of three interlocking squares, their corners and intersection-points marked by ‘Obelisks’. The northern and western edges of the larger 800m-side square define the boundaries of the Capitol, while the two smaller, 400m-side squares determine relative placing of the four ‘Edifices’ and proportions of the spaces in between.

The main edifices are placed on a cross axis wherein rigid symmetry has been avoided to enable a visual thrust towards the hills while providing each building a suitable foreground. The present layout clearly reflects the original planning principles. While the linear façade of the Secretariat marks the edge of the Complex on the left



side, the Assembly and the High Court are placed on the opposite ends of the cross axis, facing each other across a 450-metre Esplanade where the monuments symbolising Le Corbusier’s theories of City Planning have been placed. The

placement of buildings of the Secretariat and the High Court with the longer facades perpendicular to the hills lend an unobstructed view of the foothills.

Architectural form and construction materials:

Disciplined by a limited budget, a primitive technology and a brutal climate, Corbusier has been able to create in India an architectural expression surpassing in power any of his previous efforts. Considered as his most mature plastic creations, each of the edifices and monuments has a unique sculptural form based on its function and a strong symbolism inherent in the form derived for each building. Here one sees a tangible manifestation of the principles of Purism and Brutalism uniquely tempered by the use of colours to offset the monochromatic finish of the exposed concrete.

The buildings exhibit the adaptation of European Modernism exploring the multifarious possibilities of deploying reinforced concrete and the unique expression that was achieved in this modern material through application of indigenous techniques and respect for local constraints. The concern for controlling climate without the aid of mechanical devices is evident in the orientation of the buildings, the careful design of the brise-soleil as well as intricate systems devised for trans-aeration. Sculptural gargoyles drain rain water from the expansive roofs into the pools dotted with river bed stones.

2.3 Statement of Outstanding Universal Value

The Capitol Complex in Chandigarh is one of the most monumental architectural compositions of Modern Urbanism by Le Corbusier- an important part of his global legacy arising out of a unique geo-political and cultural setting. It showcases landmark innovations in the fields of urban planning, architectural theory and practice and, advancement in building materials and technology.

The Assembly, the High Court and the Secretariat buildings celebrating the three pillars of democracy are skilfully juxtaposed in a vast pedestrian plaza. Monuments articulating the plaza include the Open Hand, the Martyrs Memorial, the Geometric Hill and the Tower of shadows. Together, the monuments and the edifices of the

Complex represent the most tangible manifestation of the architectural and urban design theories of Le Corbusier. The unprecedented amalgamation of the principles of CIAM (Congress Internationale d'Architecture Moderne), with the aspirations of the newly created democracy culminated in a prototype which continues to deeply impact the development of architecture and urban planning all over the world.

Considered as his most mature plastic creations, each of the edifices and monuments has a unique sculptural form based on its function and a strong symbolism inherent in the form derived for each building. Here one sees a tangible manifestation of the principles of **Purism and Brutalism** uniquely tempered by the use of colours to offset the monochromatic finish of the exposed concrete. The extensive use of brise-soleil and double roofs for solar control, orientation and design of fenestrations for trans-aeration, reflecting pools for rain water harvesting and thermal sinks, terrace gardens etc. were technological innovations for climate responsive architecture. The creation of complex forms based on a simple structural order within the limited resources of time, money and manpower was a landmark in the advancement of architectural techniques in Chandigarh, India and the world at large.

Outstanding Global influence as an object: “masterpiece”

The Capitol Complex is an important landmark in the progression of modern architecture and thought the world over. This seminal creation transcends national and temporal boundaries. The abstract geometric composition of the buildings, the coherent use of 'Modular' dimensions to achieve aesthetic proportions, and the strong symbolism of the sculptural forms created by the use of new building materials and techniques have elevated the Capitol from a nationalist idiom to a transnational globalised work of art. Further, overcoming the constraints of local technology and lack of trained labour became an inspiration for modern architecture for developing countries all over the world. Corbusier's concerns towards Sun, space and verdure are by far represented best in this ensemble.

Strong influence in a region of the world

The creation of the Capitol Complex introduced modernization in South Asia- not just in architecture and urban planning but also at the cultural, societal, economic and technological level. It set the stage for ushering in Modernity within the constraints of a shoestring economy, near absence of mechanized labour and in response to

Chandigarh's harsh, composite climate. Chandigarh's Capitol has been a role model and pace setter for civic architecture in the Indian subcontinent and continues to be a source of inspiration even today.

Crystallization of an idea that had exceptional and global influence: prototype

The nominated property is one of the most significant and unique examples of Corbusier's contribution to the creation of new building types in the realm of civic architecture. As a global influence, it served as a prototype for contemporaneous developments such as Doxiadis's Islamabad, Dodoma in Tanzania, Lucio Costa's Brasilia and Louis Kahn's Dacca. Further, the individual buildings of the Capitol are in themselves representatives of distinct archetypes- the Secretariat represents a linear office building addressing concerns of efficient circulation, disposition of office spaces with abundant natural light and ventilation. The square based Assembly building symbolic of majesty and power crowned by a sculptural skylight and the double roofed High Court signifying the shelter of law are the principal edifices of the composition, each a product of the unique interaction between different cultural and technological influences.

Plastic innovation

The three realised edifices of the Capitol are considered to be the most visually evocative and expressive plastic creations of Corbusier's impressive oeuvre as an artist, architect and sculptor. The aesthetic conceptions are derived from a unique blend of the elements of purism, brutalism with sculpture and landscape sensitively correlated to the site planning. It showcases an exceptional mastery of form, space and structure as a generator of emotional expression. The hallmark of the Complex is the extensive utilisation of exposed concrete to create one of the grandest examples of monumental architecture symbolising a free nation state. The use of primary colours on monumental gateways, tapestries, pylons and joinery elements to balance the monochromatic concrete created a distinct vocabulary for Brutalist architecture.

Spatial innovation

The nominated property, strategically located at the uppermost edge of the administrative city as its symbolic and physical head, encompasses a vast expanse of space seamlessly merging into the backdrop of the Shivalik Hills. A strong

architectural statement is achieved by the sensitive interrelationship of the monumental edifices with each other and most importantly with the space they are set in. This concept of spatial experience is heightened by the juxtaposition of the monuments such as Geometric Hill, Artificial Mounds and serial visions created by the designed landscape. The spatial composition reflects abstract planning, spatial correlation based on the Modular, integration with the natural setting, site responsive landscaping and sculptural innovations.

Testing of technology and prefabrication

The Capitol with its innovation in design, detailing and execution unleashed the true potential of modern architectural techniques. It is of great technical significance in the way it revolutionised the construction techniques, paving the way for the extensive use of concrete in future constructions.

Climate responsive architecture: The extensive use of brise-soleil and double roofs for solar control, orientation and design of fenestrations for trans-aeration, reflecting pools for rain water harvesting and thermal sinks, terrace gardens etc. were technological innovations for climate responsive architecture. The Tower of Shadows and the sun dial represent tangible tools for microclimatic amelioration.

Structural innovations The creation of complex forms based on a simple structural order within the limited resources of time, money and manpower was a landmark in the advancement of architectural techniques in Chandigarh, India and the world at large. The construction of the thin hyperboloid shell of the immense column-free, circular Assembly Hall was a landmark technical achievement displaying the immense plastic and structural potential of concrete.

Acoustics: Innovative low cost yet effective elements such as the artistic tapestries in the high ceilinged courtrooms and the free flowing acoustic panels in the assembly chambers create a skilful union of function and aesthetics.

Modular: Another important feature is the formalised use of the Modular on various scales from site planning and building proportions to the articulation of fenestration. The Capitol complex is a rare example where the principles of the Modular find physical manifestation.