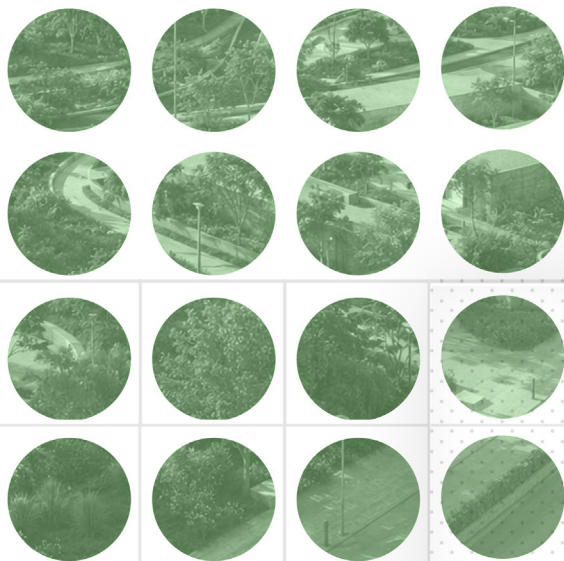


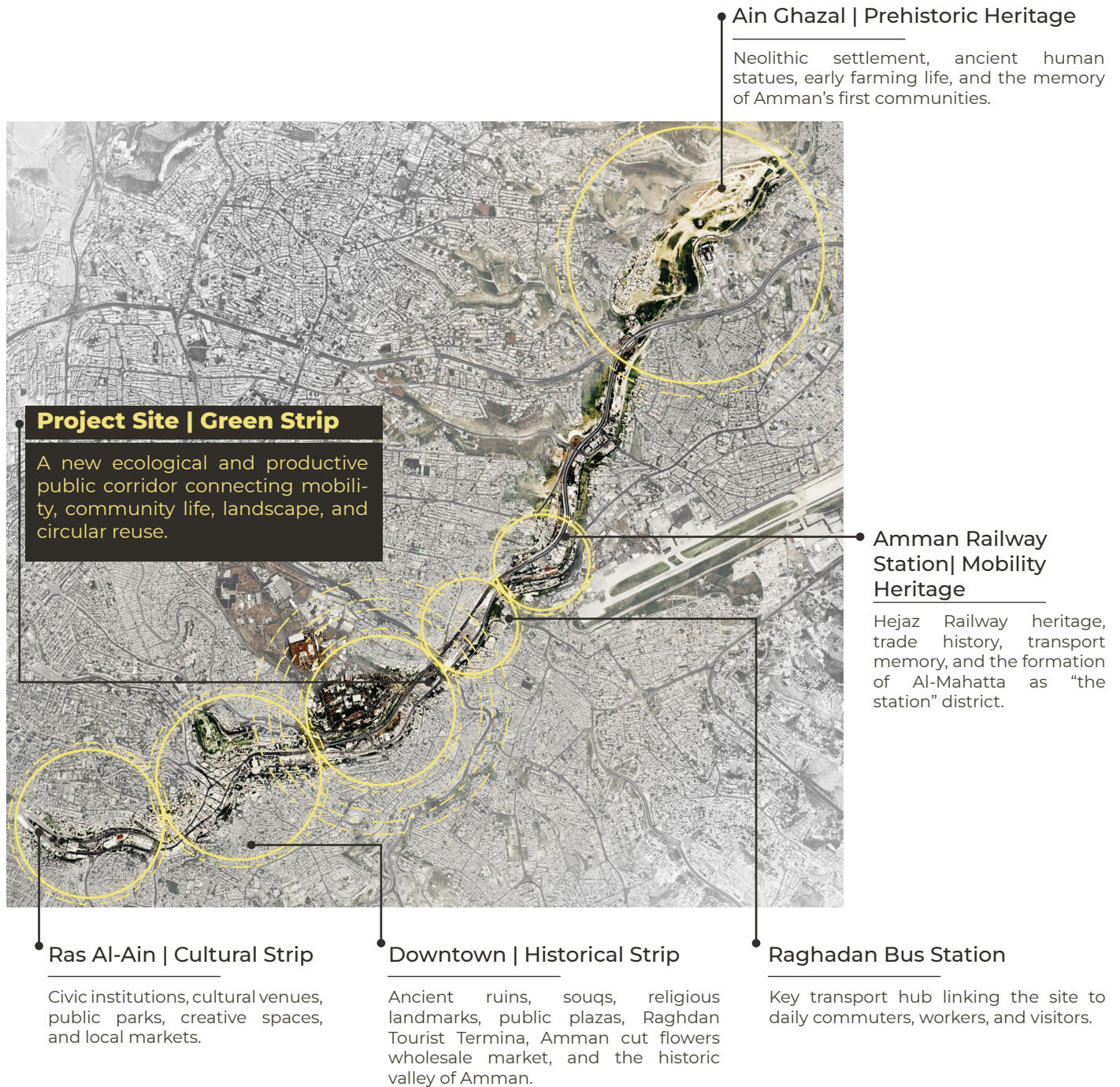
The Median - A Green Urban Strip



Location | Points of Interest

The site sits within a powerful urban sequence that links Amman's cultural, historical, and mobility layers.

Surrounded by major landmarks, transport nodes, and residential districts, it has the potential to act as the city's missing green link, reconnecting people, places, and everyday urban life through an ecological and productive public corridor.



Existing Conditions | The Challenge

The site currently functions as a neglected urban edge shaped by car dominance, unsafe pedestrian movement, weak public infrastructure, and scattered informal use. Despite its strategic location, the area lacks shade, seating, lighting, clear paths, and active public spaces.

Auto-repair activities, waste accumulation, and underused vacant land create environmental and social pressure, while existing users continue to move through and occupy the site without proper support.



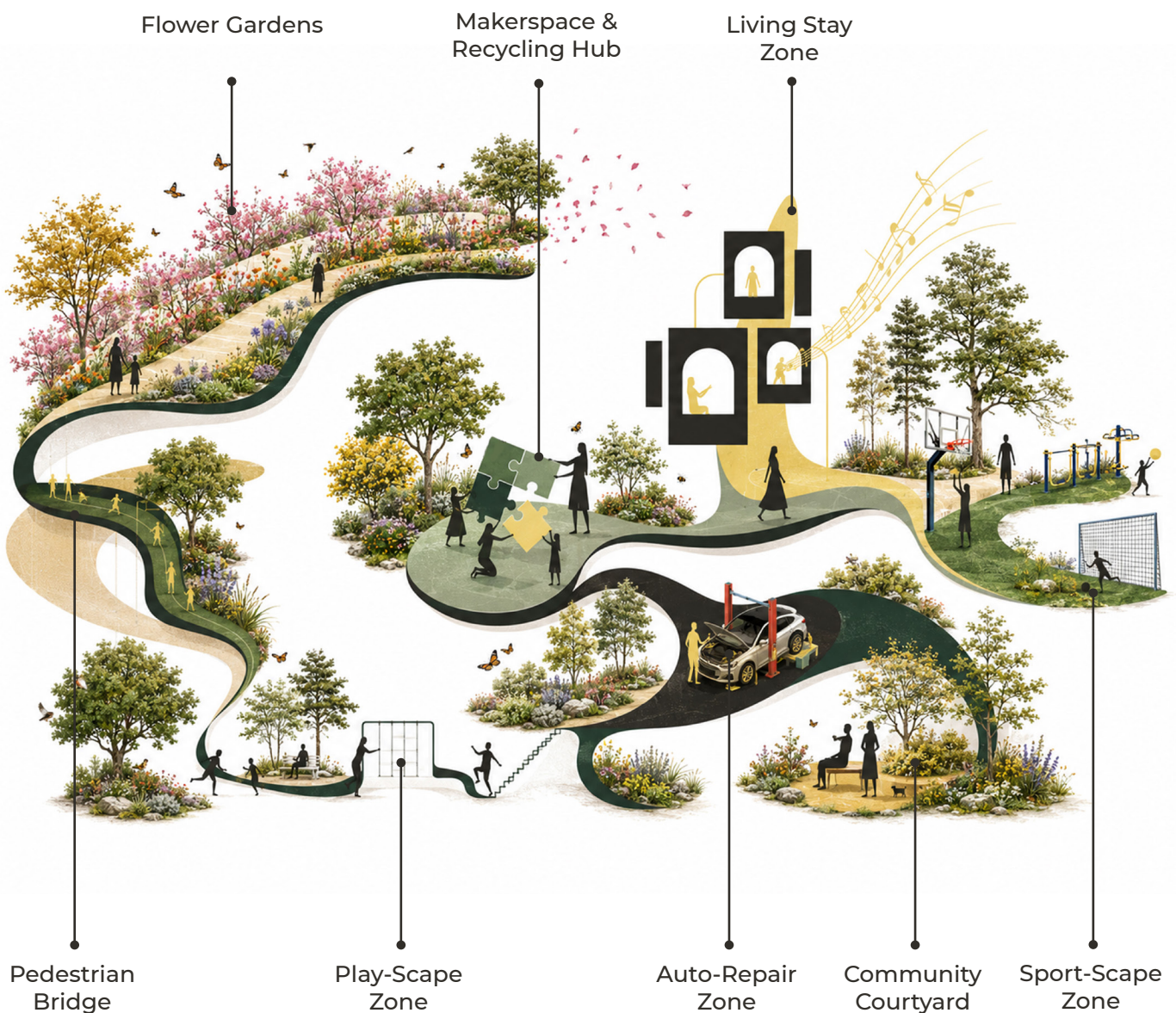
This forgotten edge needs to breathe, reconnect, and become a safer public space for the community.

Design Concept | Main Strategy

The concept transforms the site from a fragmented grey edge into a continuous green urban spine. By extending the palace-side landscape into the site, the proposal uses greenery as an organizing structure that reconnects the dense urban fabric with mobility, public life, and ecology.

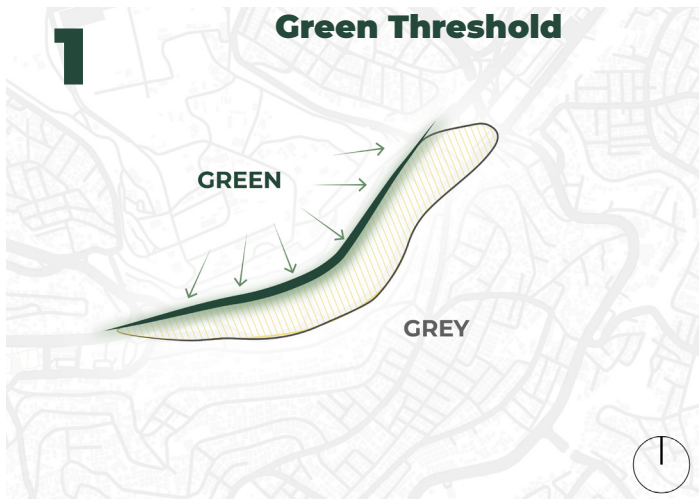
Rather than imposing a new geometry, the design follows existing desire lines and daily movement patterns, turning informal routes into safe pedestrian and cycling connections.

Existing users, workers, and activities are retained and upgraded, while waste from the auto-repair zone is reintroduced as a circular material resource for furniture, shading, façades, and public-space elements.



1

Green Threshold



The site sits between the green landscape of the palace grounds and the dense urban fabric of East Amman, creating an opportunity to connect two contrasting conditions.

2

Extending the Green Edge



The proposal extends the existing green network into the city, bringing shade, biodiversity, and public space deeper into the surrounding neighborhoods.

3

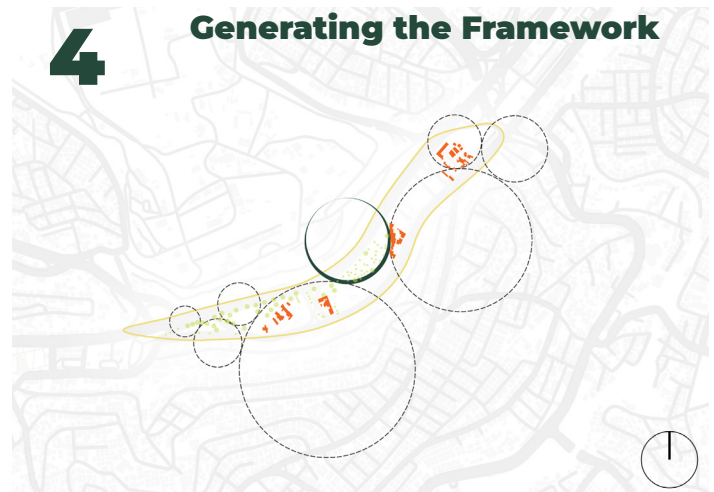
Revealing Existing Potential



Site analysis identified a mature grove of trees as a natural focal point, alongside underutilized corrugated-sheet structures whose materials can be reused within the project.

4

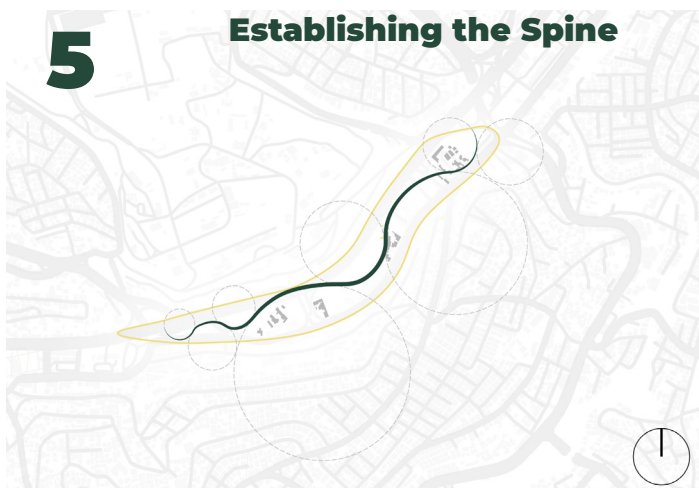
Generating the Framework



The locations of these structures and the existing grove established a series of reference points that informed the project's spatial organization and movement patterns.

5

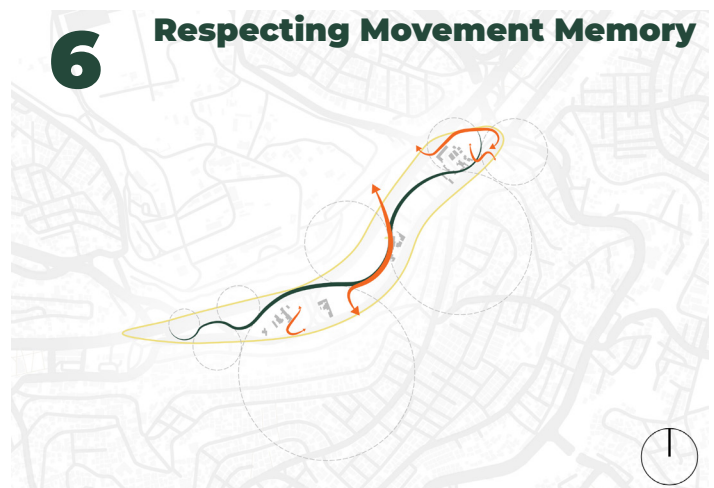
Establishing the Spine



A continuous pathway emerges from this framework, connecting key destinations while organizing ecological, social, and recreational activities along the corridor.

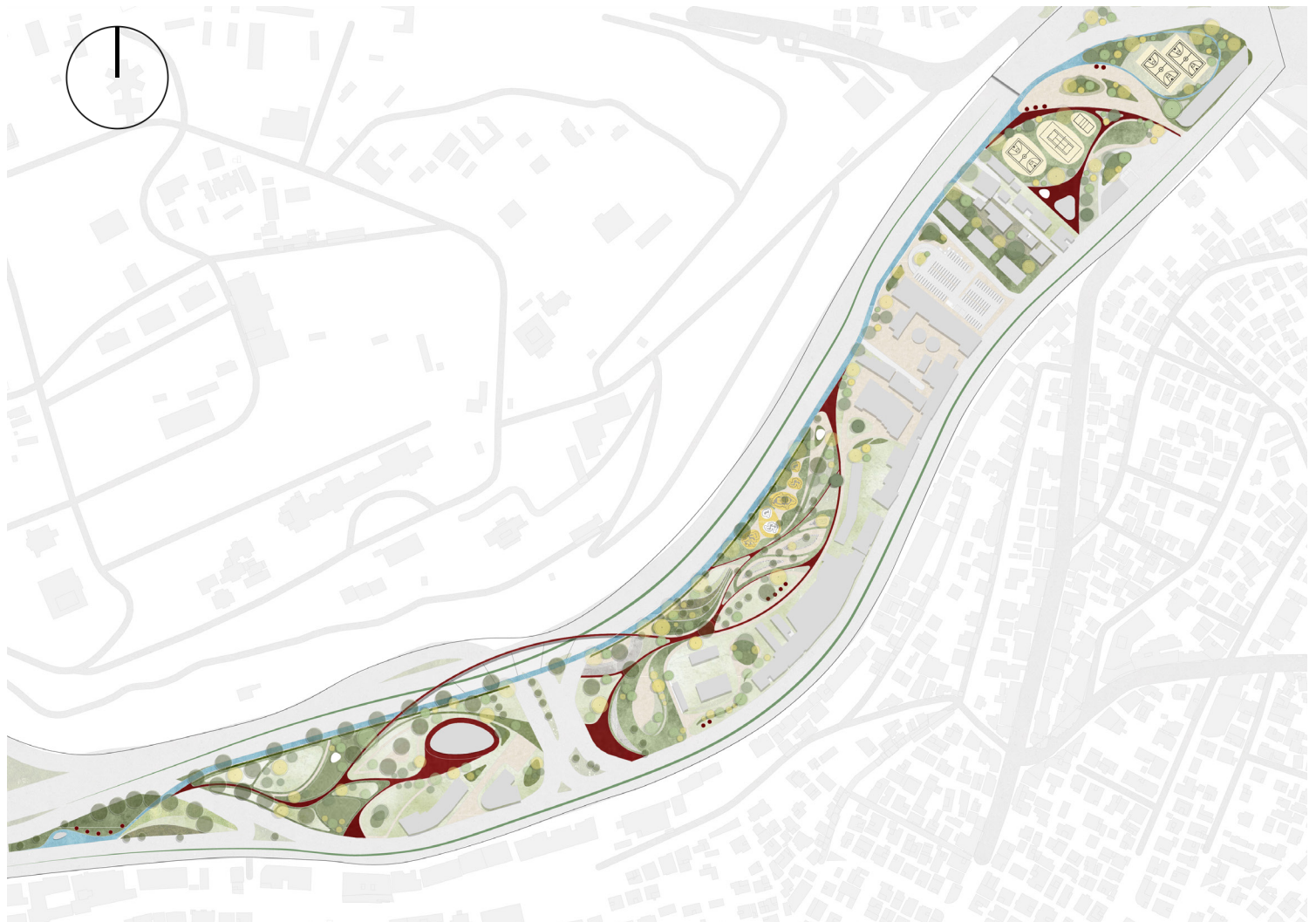
6

Respecting Movement Memory



The proposal keeps the routes people already use and transforms them into safer, shaded, and accessible paths, preserving the site's collective memory while improving movement and connection.

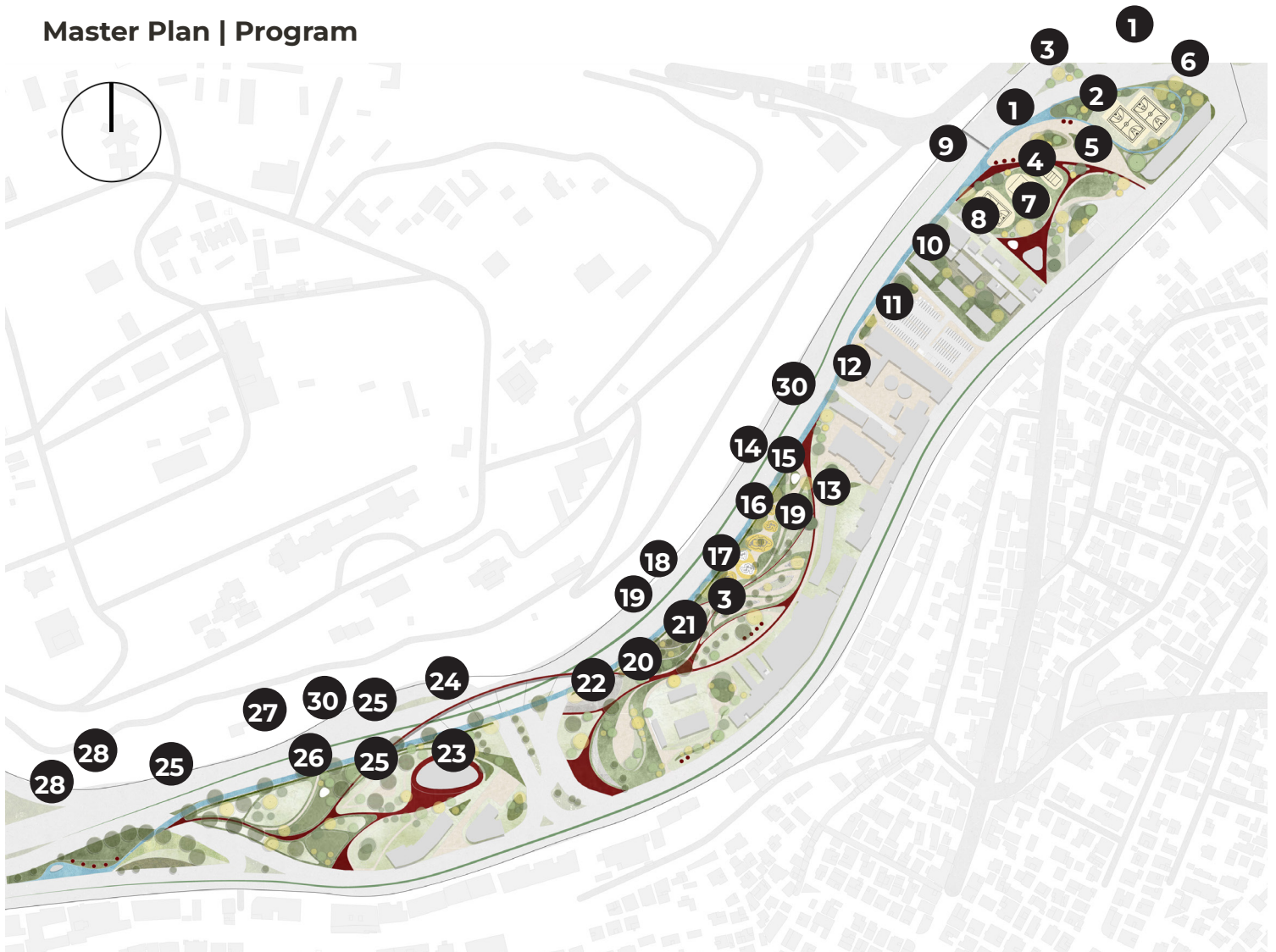
Master Plan



Mobility Plan



Master Plan | Program



1- Sport Scape
(Football Courts, Basketball Court,
Tennis Court, Padel Court)

2- Outdoor Gym

3- Rain Garden & Plaza with Kiosks

4-Bicycle rental spot and W.C

5- Existing Gas station with new
markets

6- Existing Commercial Building

7- Existing Residential Buildings

8- Hostels

9- Gas Station

10- Multi-Story Parking with Roof
Garden

11- Factory

12- Makerspace

13- Auto-Repair Zone

14- Kids Playground Park

15- Seating Terraces

16- Community Courtyard

17- Outdoor Cafes

18- Edible Landscape & Native
Planting Zones

19- Pocket Garden

20-Pop-Up Shops

21- Charity Clothing Bank

22- Outdoor Amphitheatre

23- Commercial and Mixed Use
Buildings

24- Flower Market & Products Sell-
ing Point

25- Flower Garden

26- Medicinal Garden

27- Productive Landscaping

28- Crafts Kiosks

29- Bicycle Rental Spot

30- W.C

Landscape + Biodiversity Strategy

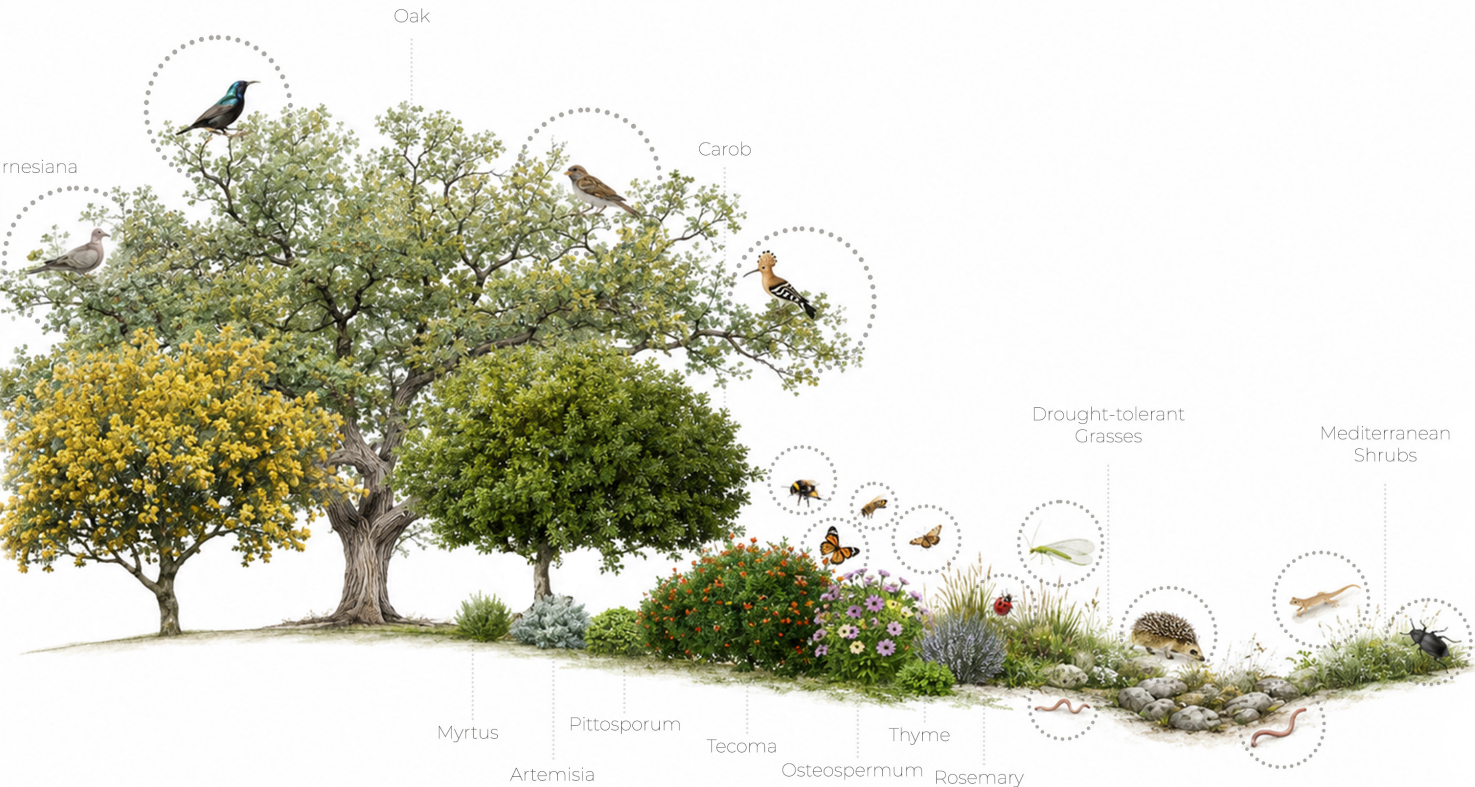
The planting strategy layers shade trees, shrub buffers, pollinator flowers, aromatic herbs, and dryland species to create a resilient urban habitat. Together, these plants attract birds, pollinators, beneficial insects, and small ground fauna, turning the Green Strip into a living ecological corridor that supports biodiversity, cooling, shade, and everyday public life.

PLANTS

Shade Canopy	Shrub Buffer	Flowering / Pollinator	Aromatic Herbs	Dryland	
					
Acacia farnesiana	Myrtus communis	Tecoma capensis	Thyme	Aloe vera	Drought-tolerant Grasses
					
Carob	Artemisia arborescens	Osteospermum jucundum	Rosemary	Artemisia arborescens	Mediterranean Shrubs
					
Oak	Pittosporum tobira	Acacia flowers			

ANIMALS

Pollinators	Beneficial Insects	Birds	Ground Fauna			
						
Honey bee	Butterfly	Ladybird	Lacewings	House Sparrow	Eurasian collared dove	Hedgehog
						
Bumblebee	Hoverfly	Ground beetles	Earthworm	Palestine Sunbird	Hoopoe	Gecko



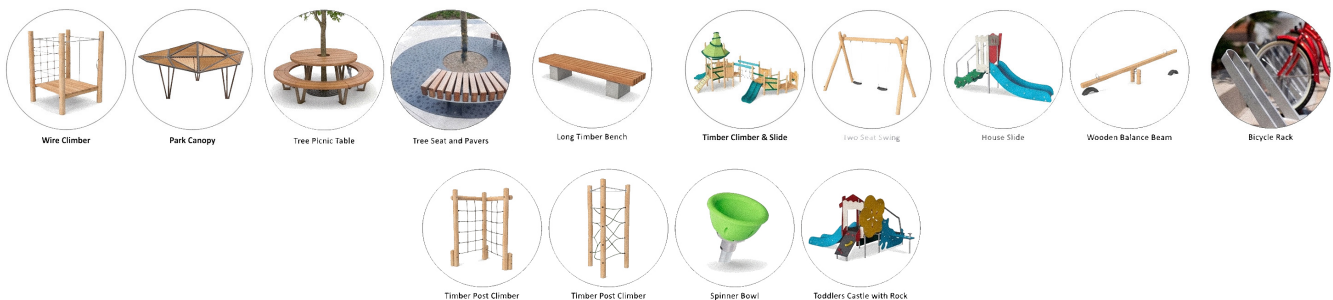
Adaptive Reuse | Circular Materials

Formalized Pop-Up Stalls

The pop-up stalls transform existing informal street vending into an organized and flexible marketplace. Built with lightweight modules and recycled site materials, they support food, crafts, flowers, and local products while preserving the social energy of street vending in a cleaner and more sustainable form.



Furniture Selection



Future-Adaptive Parking Structure

The multi-story parking is designed as a flexible structure with 3-meter floor heights and a removable external ramp, allowing future conversion into commercial, office, or community uses. Its rooftop garden reduces heat, adds public green space, and improves environmental performance.



Environmental Impact Assessment

Makerspace & Circular Reuse Hub

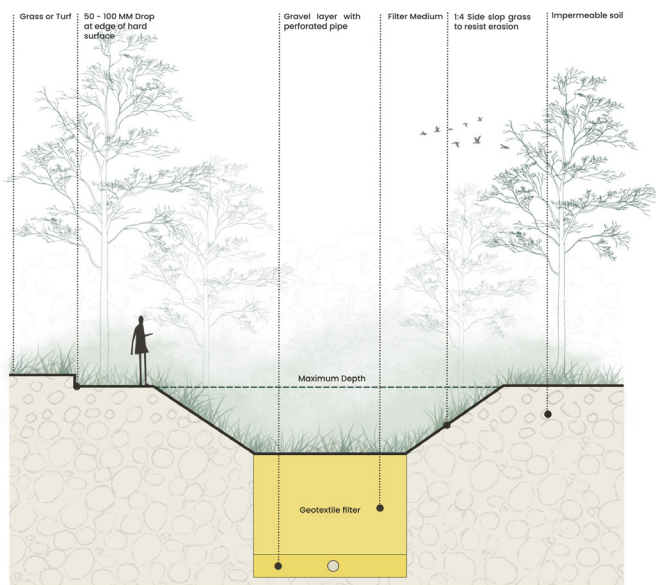
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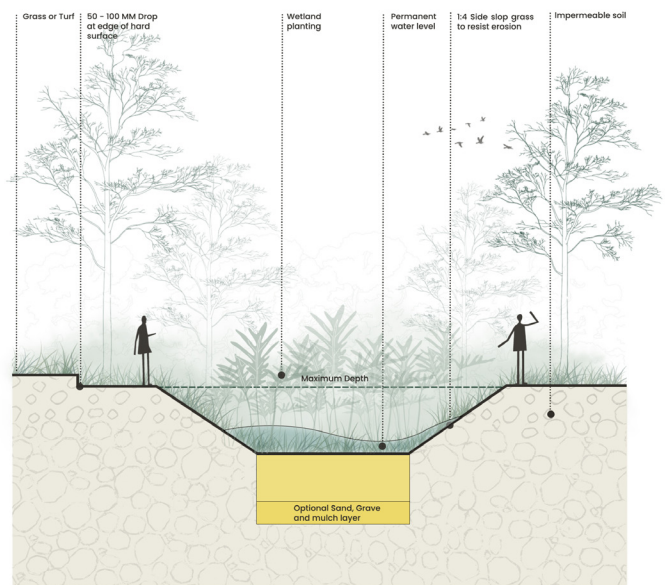
Environmental Impact Assessment

A. Bioswales

To mitigate localized urban flooding along pedestrian corridors, the design integrates a dual-system network of wet and dry bioswales seamlessly embedded adjacent to the walking paths. Runoff from the hardscape enters the system via a strategic 50–100 mm drop, flowing over a stabilized 1:4 erosion-resistant grass slope. In retention zones, the configuration follows the Wet Swale design, maintaining a permanent water level and dense wetland planting for biological nutrient uptake, supported by an optional subterranean sand and gravel layer. Conversely, along standard pedestrian stretches where a dry profile is preferred between rain events, the system utilizes the Dry Swale configuration; this setup relies on a highly permeable filter medium and geotextile filter fabric to rapidly treat and convey water to a subterranean gravel layer equipped with a perforated underdrain pipe. By routing runoff through this integrated biophilic infrastructure, the development significantly reduces peak runoff, facilitates water filtration, and elevates the aesthetic and microclimatic quality of the pedestrian realm.



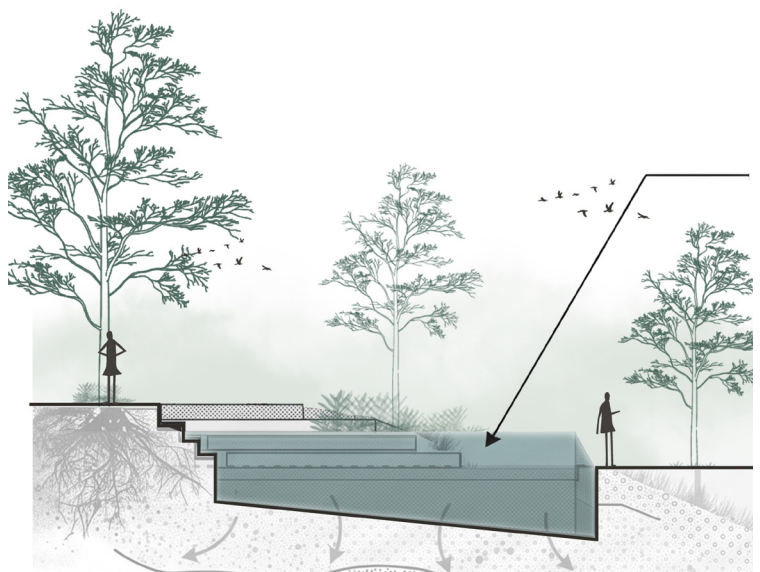
Dry Bioswale



Wet Bioswale

B. Floodable Plaza

To maximize urban climate resilience, the design incorporates a resilient Multi-use Plaza a configuration functioning as a dynamic floodable public space for temporary water retention during heavy downpours. By utilizing a terraced, stepped amphitheater layout, the plaza gracefully manages varying water depths, transitioning from an active civic gathering space during dry conditions into a functional retention basin during peak storm events. The sloped, permeable base of the plaza allows retained stormwater to slowly infiltrate into the subterranean soil profile, drastically reducing pressure on the municipal drainage network and facilitating localized groundwater recharge. This dual-purpose infrastructure seamlessly marries civic utility with ecological performance, mitigating local flood risks while creating an interactive water feature that enhances the urban microclimate and adds biophilic value to the community.



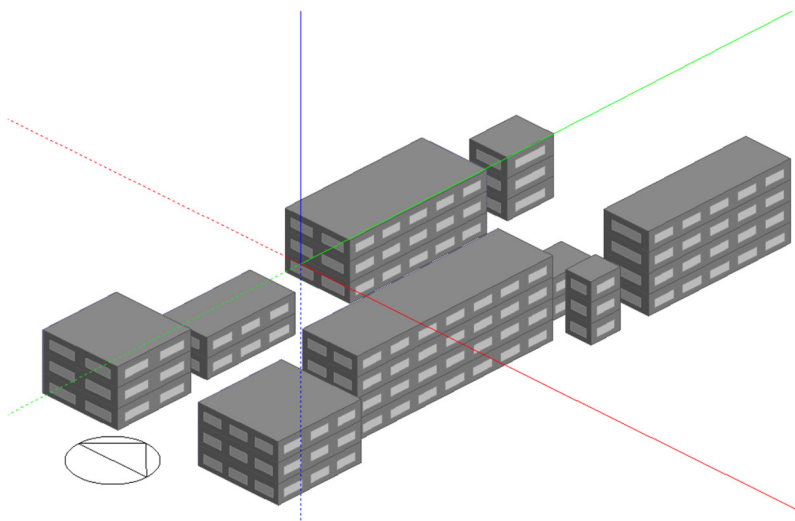
Multi-Use Plaza

Environmental Impact Assessment

D. Building Integrated Photovoltaics (BIPV)

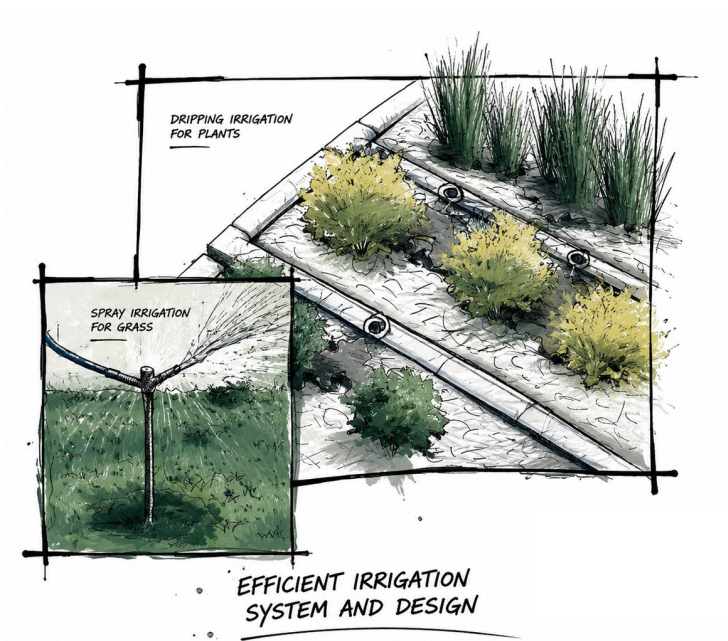
To evaluate the potential for localized renewable energy generation within the project scope, a dynamic annual building performance simulation was conducted using DesignBuilder software, utilizing the specific climate data and weather file for Amman, Jordan. The passive intervention involved integrating Building-Integrated Photovoltaics (BIPV) directly within the window-to-wall ratio (WWR) facades of both the existing residential and commercial structures. The simulation results, tracking the monthly offset of conventional energy consumption, demonstrate significant localized power generation capacity. Across the 12-month cycle, the integrated BIPV units successfully yielded substantial net electricity generation, ranging from a winter baseline of -7,555.74 kWh in January to a peak summer production of -17,543.30 kWh in July due to increased solar irradiance. By embedding these generative solar surfaces directly into the building envelopes, the intervention effectively minimizes reliance on the carbon-intensive municipal grid, significantly reducing the development's operational carbon footprint and aligning the existing urban fabric with sustainable, self-sufficient energy targets.

Date/Time	Generation (Electricity)
kWh	
1/1/2026	7555.738
2/1/2026	8217.188
3/1/2026	12050.72
4/1/2026	14224.82
5/1/2026	15935.76
6/1/2026	17419.15
7/1/2026	17543.25
8/1/2026	16837.12
9/1/2026	14839.38
10/1/2026	12241.17
11/1/2026	8632.199
12/1/2026	7671.995



E. Irrigation Methods

To minimize impact on the local municipal water supply and mitigate the risks of groundwater depletion in Amman's arid climate, the development incorporates a targeted, dual-zone landscape irrigation strategy as conceptualized in the Irrigation System design. The layout divides water distribution based on localized vegetative hydraulic demands to prevent over-allocation and unnecessary surface runoff. For structural shrubs and dense groundcover, a low-volume dripping irrigation network delivers water directly to the plant root zones, a measure that drastically reduces evaporative losses and prevents localized soil erosion. For open turf and lawn areas, a high-efficiency spray irrigation setup is utilized, deploying optimized nozzles calibrated to provide uniform surface coverage while minimizing wind drift and misting losses. By pairing subsurface drip lines with advanced spray zones, this responsive water management infrastructure significantly lowers total operational water consumption, prevents waterlogging, and preserves the structural integrity of the adjacent pedestrian walkways.



Environmental Impact Assessment

F. Inclined pavement

This passive infrastructure relies on strategically inclined pavement surfaces that utilize gravity to naturally direct surface runoff away from pedestrian walking surfaces and toward adjacent bioretention pockets. Instead of allowing precipitation to pool or escape into conventional stormwater infrastructure, the graded hardscape channels the water flow directly into vegetated basins, rock gardens, and native planting beds located right outside residential entrances. By converting hardscape elements into active water-routing surfaces, this design reduces peak runoff volume, improves localized soil moisture levels.

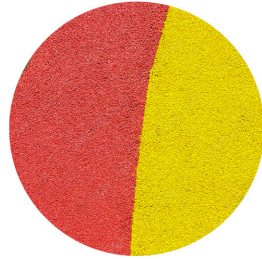


Materials Selection



Permeable pavers
Location: Pathways

UHI reduction: This permeable design allows rainwater to seep directly through the ground rather than pooling or creating runoff. By retaining moisture in the soil, it promotes natural evapotranspiration from the integrated grass, which creates a significant, localized cooling effect on the surrounding microclimate.



Cool Rubber Flooring
Location: Pathways

UHI reduction: The light and bright-colored green and yellow sections of the surface are highly reflective. By bouncing away a substantial portion of solar radiation, this material significantly reduces the total amount of solar heat absorbed and stored by the ground compared to traditional dark asphalt surfaces.



Natural Sand
Location: Kids play + Softscape

UHI reduction: Sand features a high solar reflectance, or albedo, meaning it reflects much more sunlight away from the earth compared to dark-colored pavements. Furthermore, its loose, porous composition allows water to drain freely through it, keeping both the material surface and the immediate air directly above it noticeably cooler.



Sandstone tiles
Location: Water Feature

UHI reduction: Sandstone naturally possesses a relatively high albedo (solar reflectance) compared to dark asphalt or standard grey concrete, minimizing the initial absorption of solar energy. When used in tandem with water elements, its porous crystalline structure allows for minor moisture absorption. This moisture undergoes continuous evaporation, dynamically cooling the immediate boundary layer of air through latent heat transfer.



Permeable Aggregate
Location: Secondary Pathways

UHI reduction: This material is highly permeable, which allows stormwater to easily infiltrate the surface layers and penetrate deep into the soil. By facilitating this natural drainage process, it reduces overall heat retention within the pavement and promotes natural groundwater cooling while simultaneously reducing disruptive surface water runoff.



Cool Pavement
Location: Tracks

UHI reduction: It incorporates highly reflective binders and aggregates specifically designed to redirect solar energy away from the ground plane. This reflective capability is especially evident in the red and grey sections of the track, working dynamically to lower overall surface temperatures and mitigate regional urban heat.



Interlock Pavers
Location: Pathways and Hardscape

UHI reduction: When specified with light-colored aggregates or high-reflectance concrete mixes, these pavers achieve a high Solar Reflectance Index (SRI), allowing them to reflect a substantial portion of solar radiation back into the atmosphere instead of absorbing it as thermal mass. Furthermore, the sand-filled joints between the individual interlocking units provide a degree of surface permeability.

Evaluation of Community Benefits

The Green Urban Strip improves quality of life by transforming a neglected, car-dominated corridor into an inclusive public landscape that serves residents, workers, commuters, youth, children, and visitors. The project creates safer pedestrian and cycling connections, shaded routes, active public spaces, and clearer links between surrounding neighborhoods, transport nodes, heritage sites, and daily services.

For local residents, the proposal introduces accessible community spaces, playgrounds, sports facilities, outdoor cafés, edible landscapes, rain gardens, and shaded seating areas. These interventions provide healthier places for recreation, social interaction, walking, and everyday gathering, especially in a dense urban area with limited comfortable public space.

For children and youth, the project strengthens existing movement patterns, including routes toward the football courts, and expands them into a sports-scape with courts, outdoor gym areas, bicycle rental points, and safe public plazas. This supports physical activity, social engagement, and positive use of public space throughout the day.

For existing auto-repair workers, the project improves working conditions without displacement. The repair activities are reorganized into a cleaner service zone with shaded break areas, kiosks, toilets, prayer spaces, waste management, and green buffers. This protects livelihoods while reducing environmental and health impacts on nearby users.

The community makerspace creates educational and economic value by allowing residents, workers, students, and youth to learn, repair, fabricate, and recycle materials from the auto-repair zone. This supports local skills, circular economy practices, and community-led production.

The project also supports local businesses and tourism through pop-up markets, flower-selling points, cafés, hostels, productive landscapes, and improved connections to Downtown Amman, Raghadan, Amman Railway Station, Ain Ghazal, and the Amman Cut Flowers Wholesale Market.

Overall, the proposal enhances safety, comfort, accessibility, public health, environmental quality, local identity, and economic opportunity. It transforms the site into a productive and socially active corridor that connects people to each other, to nature, and to Amman's cultural and urban memory.

Feasibility Study

The Green Urban Strip is proposed as a realistic and phased regeneration framework that transforms a fragmented urban corridor into a connected landscape of mobility, ecology, recreation, and community activity. Its feasibility relies on building upon existing assets, local activities, adaptive reuse opportunities, and landscape-based interventions rather than large-scale demolition.

Technically, the proposal uses achievable construction systems and locally available methods. Existing structures, including the abandoned building and the Charity Clothing Bank, are retained and reused where possible to reduce demolition waste and preserve embodied carbon. The proposed multi-storey parking structure uses a conventional steel frame, 3-meter floor heights, and an external removable ramp, allowing the building to be adapted for future uses. Public realm interventions such as pedestrian paths, cycling tracks, sports facilities, plazas, rain gardens, bioswales, and shaded gathering spaces are based on proven urban construction techniques.

Environmentally, the project integrates water-sensitive and climate-responsive strategies across the corridor. Dry and wet bioswales, rain gardens, permeable paving, floodable plazas, passive water harvesting, and irrigation systems help reduce runoff, improve infiltration, and respond to water scarcity. Native and drought-tolerant planting reduces maintenance and irrigation demand while supporting biodiversity and cooling the public realm.

BIPV integration was tested using DesignBuilder and EnergyPlus, showing the potential for renewable energy systems to support the operational demand of key buildings.

Socially, the project is feasible because it works with existing users rather than displacing them. Auto-repair workers are retained within an upgraded cleaner service zone that provides waste management, shaded rest areas, kiosks, toilets, prayer spaces, and green buffers.

Existing informal routes are improved into safer pedestrian and cycling connections, preserving daily movement patterns and collective memory. Public spaces are distributed to serve children, youth, families, elderly residents, workers, commuters, and visitors.

Economically, the proposal supports a diverse local economy through auto-repair services, makerspaces, fabrication workshops, sports facilities, pop-up markets, flower-related commerce, cafés, mixed-use activities, hostels, and tourism services. Reusing existing materials such as steel, aluminum, rusty sheets, and perforated sheets also supports a circular and cost-conscious approach.

Implementation can happen in phases:

- **Phase 1** focuses on public realm and ecological infrastructure, including paths, lighting, shade, planting, bioswales, rain gardens, and safety improvements.
- **Phase 2** introduces community and productive spaces such as the makerspace, sports-scape, courtyard, markets, and flower gardens.
- **Phase 3** includes the parking structure, hostel, mixed-use functions, commercial frontages, and renewable energy systems.

Overall, the proposal is technically, environmentally, socially, and economically feasible. By combining adaptive reuse, climate-responsive infrastructure, local economies, and phased implementation, the Green Urban Strip offers a practical pathway for transforming an underused corridor into a resilient, inclusive, and productive urban landscape for Amman.