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REDEVELOPMENT FRAMEWORK RECOMMENDATIONS

Walter Reed Army Medical Center, Washington, D.C.: Historic photo of the Walter Reed Army Hospital (Building 1) (looking northeast).



Redevelopment Framework

The Redevelopment Framework lays out the development strategy for the former Walter Reed Army Medical Center (WRAMC) Small Area Plan, which will reinforce and augment the existing site character through the use of selective development infill that corresponds to the types of buildings that are currently found on the Site. This will ensure that the integrity of the historic buildings and landscapes is maintained, while infusing the Site with new programs and uses.

“Exhibit 4-79: Proposed Development from the Walter Reed Reuse Plan July 13, 2012”, is an illustrative site plan providing a guideline for development based on the WRAMC Reuse Plan market feasibility program. This Plan illustrates potential building footprints with heights that would fit the Site based on the Reuse Plan market feasibility program. The illustrated footprints are only a test-fit for how the program might work in the Site while serving as a massing guideline and recommendation for future build-out.

The Proposed Development Plan takes into account the existing rights-of-way and distributes the program space in buildings that will be designed to be sensitive to their historic context and surrounding community.

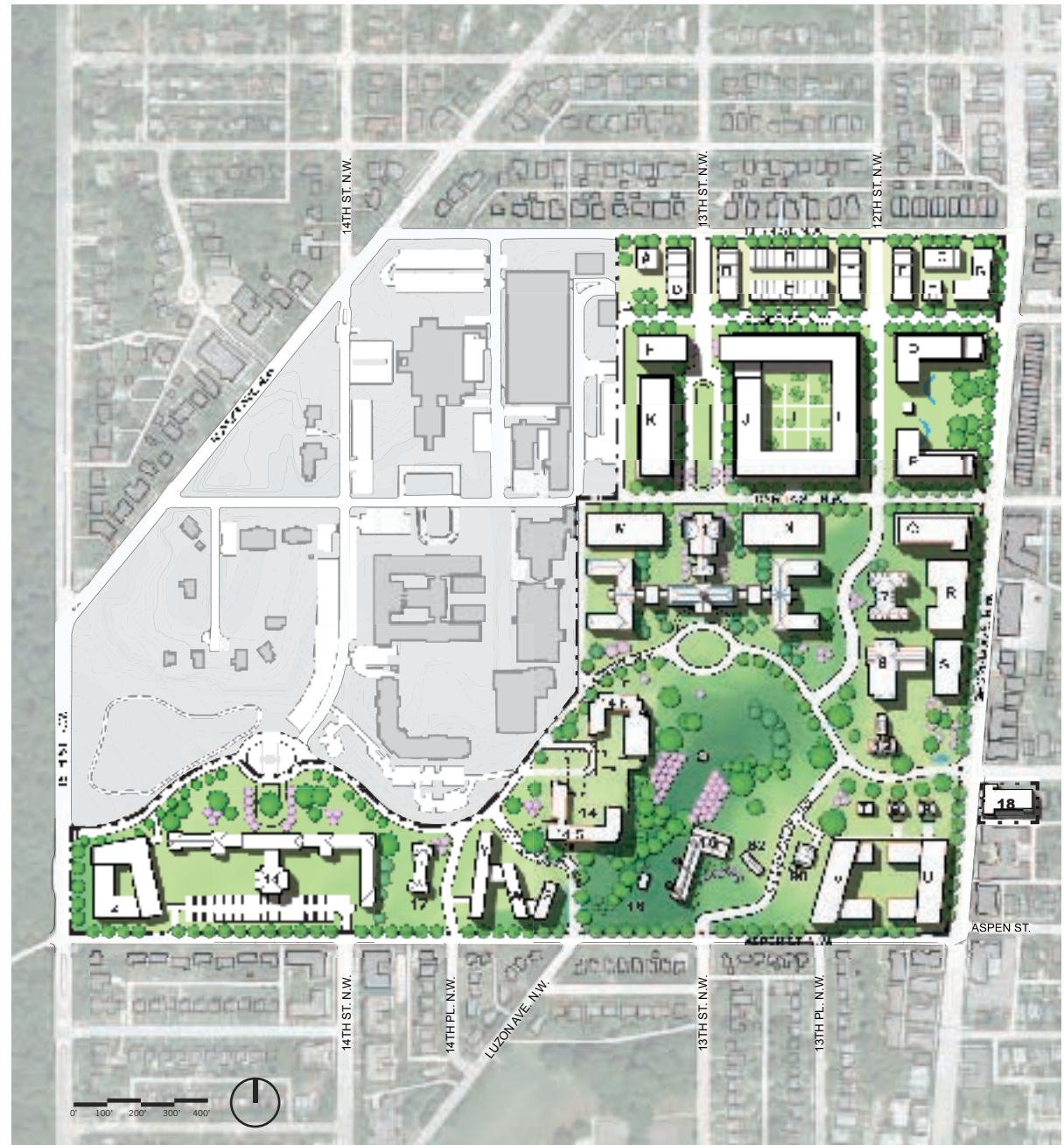


Exhibit 4-80: Proposed Development from the Walter Reed Reuse Plan July 13, 2012 Source: Perkins+Will



3.1 Comprehensive Plan Land Use Designations

The Council-approved Reuse Plan specifies the proposed land uses for redevelopment of the former WRAMC Site (See “Exhibit 4-79: Proposed Development from the Walter Reed Reuse Plan July 13, 2012” on page 58). These uses include residential, institutional/corporate, educational, public facility, open space, as well as mixed uses. The Site is currently designated as “Federal” on the Future Land Use Map of *The Comprehensive Plan of the National Capital: District Elements* (Comprehensive Plan). In order for new development to occur on the Site, new land use designations must be determined so that zoning can be established for future development. Zoning must not be inconsistent with the provisions of the Comprehensive Plan.

The Council-approved Reuse Plan is the foundation for the following Comprehensive Plan land use designation recommendations for the Site. Specifically, these land use designation recommendations are consistent with the Reuse Plan’s development densities as depicted in “Exhibit 4-79: Proposed Development from the Walter Reed Reuse Plan July 13, 2012” on page 58.

The SAP recommends land use designation changes. To facilitate these land uses, it is anticipated that a Zoning Map amendment would occur after the SAP is approved by Council. The SAP assumes that the new zoning would permit the proposed development, including any affordable housing, by-right (without requiring additional Zoning Commission review).

However, the ability to request a planned unit development (PUD) should be limited. A PUD is a discretionary, project-specific zoning case which typically includes requests to increase building height or density. Each PUD that is heard and decided by the Zoning Commission, includes public review and comment, and is intended

to encourage high quality developments that provide public benefits. Within the Walter Reed Small Area Plan boundaries, a PUD should not be utilized to increase height or density for any site with frontage along Fern Street NW, Aspen Drive NW, or 16th Street NW, and additional height or density through a PUD on any other site should be limited. The PUD development should mitigate any potential impacts of the increased height or density, and provide commensurate public benefits to the neighborhood beyond what is anticipated or required by the Small Area Plan, the Land Disposition Agreement, or other applicable requirements associated with the Site.



The recommended land use designations for the Site range from low to moderate to medium densities for residential and commercial development, as well as open space designations. “Exhibit 4-80: Comprehensive Plan Land Use Designation Recommendations” on page 61 depicts the specific land use designations for the Site. Definitions for each of the land use designations are as follows:

- **Low Density Residential (RLD):** Defines the District’s single family neighborhoods. Single family detached and semi-detached housing units with front, back, and side yards are the predominant uses.
- **Moderate Density Residential (RMOD):** Defines the District’s row house neighborhoods as well as its low-rise apartment complexes. Also applies to areas characterized by a mix of single family homes, 2-4 unit buildings, row houses, and low-rise apartment buildings. In some older inner city neighborhoods with this designation there may also be existing multi-story apartments.
- **Medium Density Residential (RMED):** Defines neighborhoods or areas where mid-rise (4-7 stories) apartment buildings are the predominant use. Pockets of low and moderate density homes may exist within these areas. This designation also may apply to taller residential buildings surrounded by large areas of permanent open space.
- **Low Density Commercial (CLD):** Defines shopping and service areas that are generally low in scale and character. Retail, office and service businesses are the predominant uses. Areas range from small business districts that draw primarily from the surrounding neighborhoods to larger business district uses that draw from a broader market area. Their common feature is that they are comprised primarily of one-to three-story commercial buildings.
- **Moderate Density Commercial (CMOD):** Defines shopping and service areas that are

somewhat more intense in scale and character than the low-density commercial areas. Retail, office, and service businesses are the predominant uses. Areas range from small business districts that draw primarily from the surrounding neighborhoods to larger business district uses that draw from a broader market area. Buildings are larger and/or taller than those in low density commercial area but generally do not exceed five stories in height.

- **Medium Density Commercial (CMED):** Defines shopping and service areas that are somewhat more intense in scale and character than the moderate-density commercial areas. Retail, office and service businesses are the predominate uses. Areas generally draw from a citywide market area. Buildings are generally larger and/or taller than those in moderate density commercial areas but generally do not exceed eight stories in height.
- **Institutional (INST):** Includes land and facilities occupied and used by college and universities, large private schools, hospitals, religious organizations, and similar institutions.
- **Parks, Recreation, and Open Space (PROS):** Includes the federal and District park systems, including the National Parks, the circles and squares of the L’Enfant city and District neighborhoods, the National Mall, settings for significant commemorative works, certain federal buildings such as the White House and the US Capitol grounds and museums, and District-operated parks and associated recreation centers. It also includes permanent open space uses such as cemeteries, open space associated with utilities such as the Dalecarlia and McMillan Reservoirs, and open space along highways such as Suitland Parkway. This category includes a mix of passive open space (for

resource conservation and habitat protection) and active open space (for recreation).

- **Federal (FED):** Includes land and facilities owned, occupied and used by the federal government, excluding parks and open space. Uses include military bases, federal government buildings, the International Chancery Center, federal hospitals, and similar federal government activities. The “Federal” category generally denotes ownership rather than use. Land with this designation is generally not subject to zoning.

ENDNOTES

1. *District of Columbia Comprehensive Plan Future Land Use Map.*



3.2 Site-Wide Urban Design Principles

The following site-wide urban design principles help set forth an overall design strategy for future development. The following general guidelines are as follows:

1. MAINTAIN THE EXISTING SITE CHARACTER
2. RETAIN BUILDING 1 AS “THE CORE”
3. ENHANCE THE OPEN SPACE
4. PRESERVE HISTORIC ELEMENTS
5. EXTEND THE STREET NETWORK
6. CREATE VIBRANT, MULTI-MODAL CIRCULATION CORRIDORS
7. INTEGRATE SUSTAINABLE STRATEGIES

The principles set forth in this chapter will guide the evaluation of new development.

1. MAINTAIN THE EXISTING SITE CHARACTER

Analysis of the Site suggested that it could be naturally divided into character areas based upon the historic building types and uses whose location had been determined largely by topography. The powerful presence of the original hospital in Building 1 is physically and theoretically the center of the Site. Due to its growth over time and the extraordinary topography surrounding it, Building 1 establishes a specific campus environment that sets a framework in which the campus can be conceptually divided into successive east-west bands, each with its own character. Understanding these character areas is useful in

establishing a framework for the continued evolution of the campus.

The following characteristics establish the framework for new design guidelines for infill and new development:

The first band, the area behind (north of) Building 1, offers the greatest opportunity for redevelopment, as it contains the fewest historic buildings, a large amount of open space that is not considered to be historic, and Building 2, which is proposed for demolition in the Reuse Plan. New development should be compatible to the existing low to moderate-density residential neighborhood across Fern Street. Open space lines the perimeter of the Site which is characteristic of a typical District of Columbia residential block.

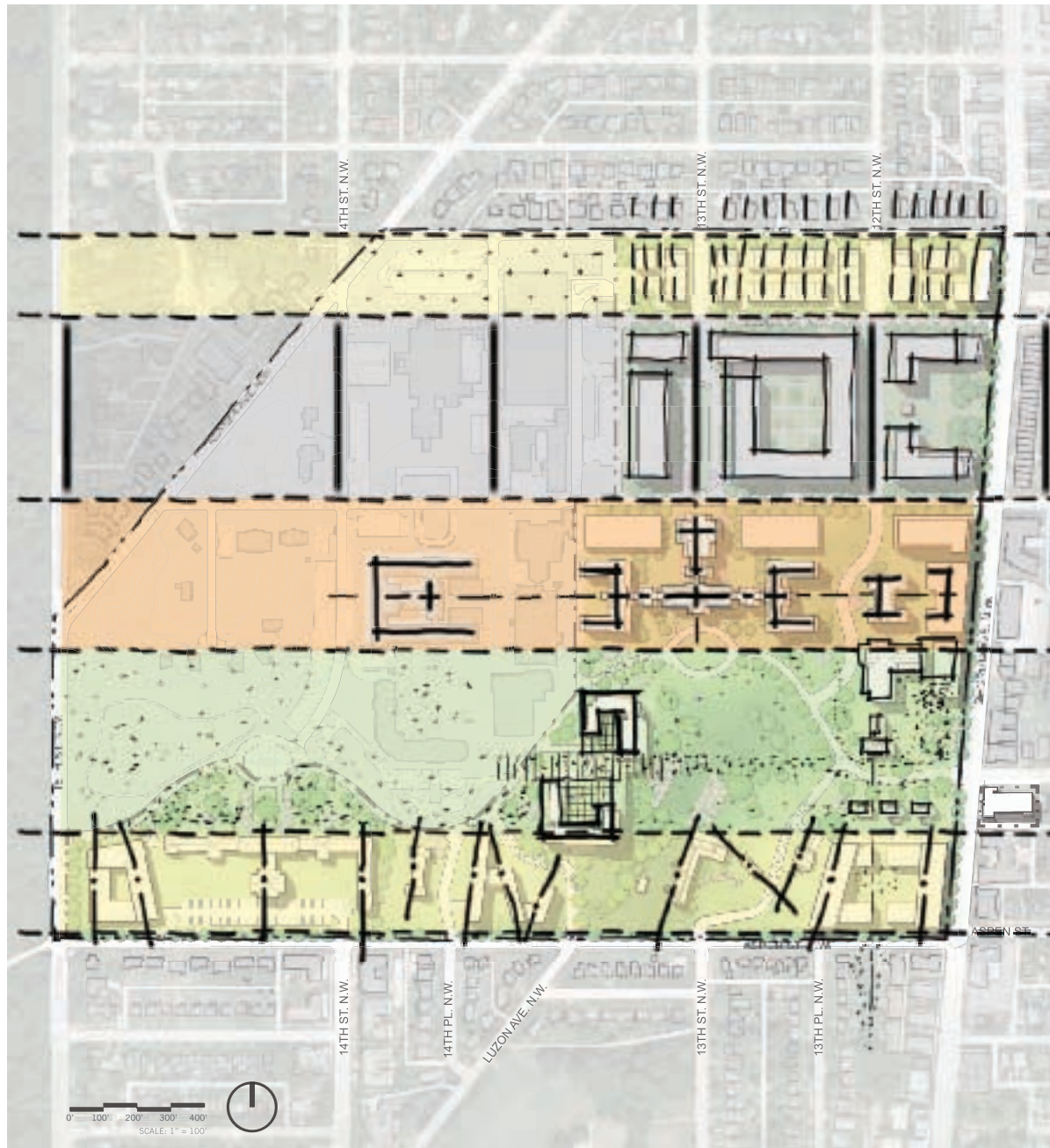
The second band, now dominated by the massive hospital Building 2, is now characterized by having new buildings and an adjacent subsurface parking garage that reinforces the larger scale urban blocks that are typical in more developed areas of the District. Buildings are oriented to the street edges and rarely as objects in the field.

The third band includes the original hospital Building 1 that incorporates Georgian-Revival architecture, typically found on many U.S. college campuses. Building 1 sets up the major formal relationships throughout the property and particularly within this band. Most of the buildings are historic and, though formally related, are separated by green space that further emphasizes a campus-like feel.

The fourth band includes the Great Lawn and Rose Garden, renamed “Cameron Glen”, to honor Cameron Creek, which was buried upon construction of the Walter Reed campus. Lyrical and park-like, this area connects Georgia Avenue to Rock Creek Park. A major feature of this band is the meandering Main Drive.

The fifth and final band, along the southern border, is characterized by the non-orthogonal disposition of historic and industrial buildings, including the utility plant (Building 15), displaced due to topography and the desire to mitigate the impact of their mass on the adjacent neighborhood.





1. MAINTAIN THE EXISTING SITE CHARACTER

- ← NEIGHBORHOOD SCALE
RESIDENTIAL SCALE
- ← CITY/URBAN BLOCK
MAXIMUM DENSITY
- ← AXIAL; FORMAL
AMERICAN INSTITUTIONAL
- ← PASTORAL
LYRICAL
OPEN
PARK LAND
- ← PERIMETER SCALE
INTENSE TOPOGRAPHICAL VARIETY
PERMEABLE

Exhibit 4-82: Main The Existing Site Character Source: Perkins+Will

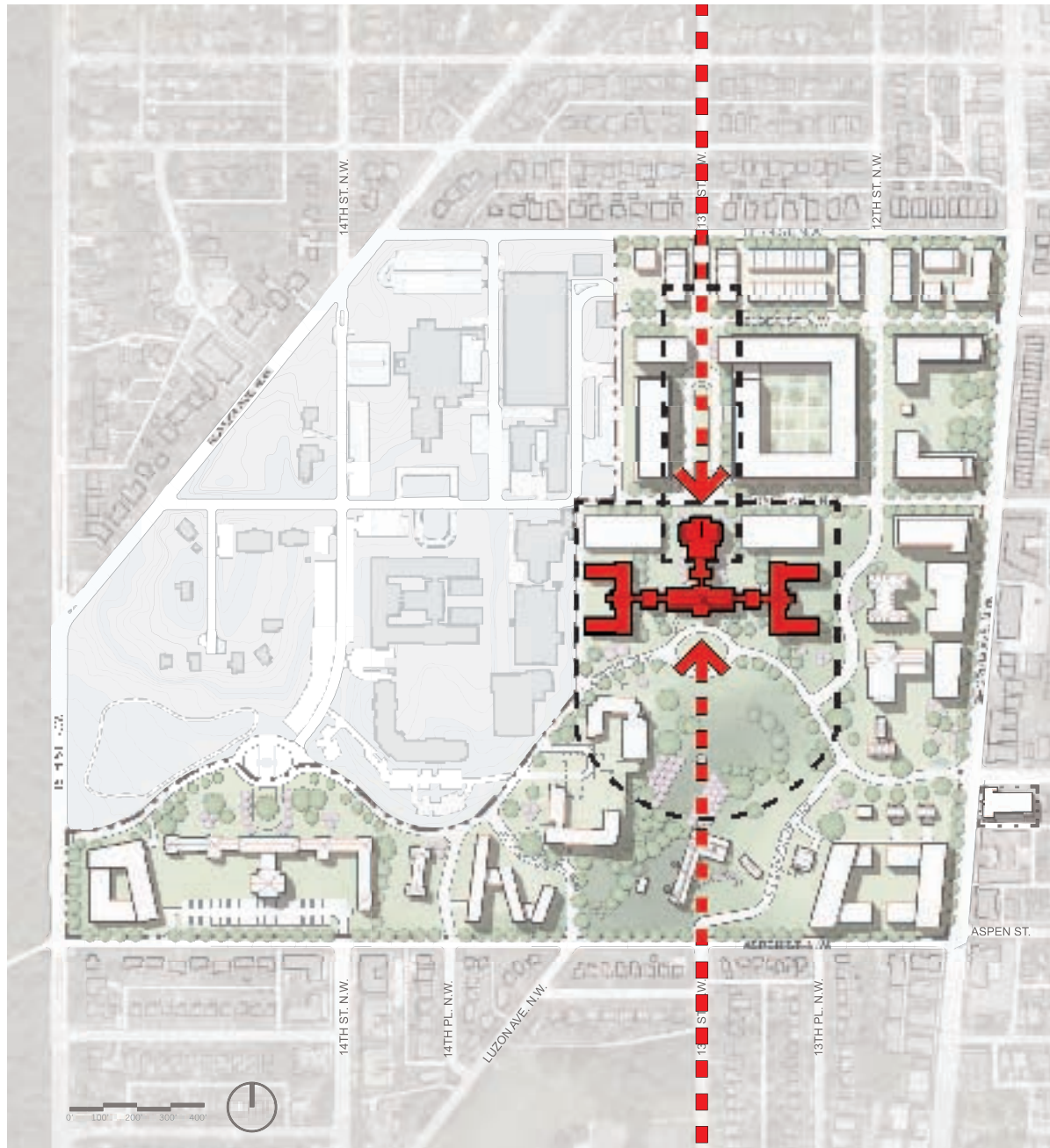


Exhibit 4-83: Retain Building 1 as “The Core”. Source: Perkins+Will.

2. RETAIN BUILDING 1 AS “THE CORE”

The original hospital Building 1 is the heart of the Site and the place where the legacy of Walter Reed as the center for sustainability and innovation will remain.

Retaining Building 1 as the “Core” supports demolishing the adjacent former hospital Building 2 and extending 13th Street to terminate at the historic north façade of Building 1. This view, hidden for over three decades, will reestablish Building 1 as the physical and theoretical core of the Site and would re-define 13th Street as a viable north-south connector street to the neighborhood. Open spaces located along the north-south axis of Building 1 reinforce its prominence as the main historic building on the Site, where the Reuse Plan recommends an institutional, corporate, academic, or medical anchor tenant.





Exhibit 4-84: Enhance the Open Space. Source: Perkins+Wil.

3. ENHANCE THE OPEN SPACE

One of the ways in which the Site is integrated with the community is via a network of open spaces running between Georgia Avenue and 16th Street, attracting people and activity into and throughout the Site.

Preservation of the Site's historic green open spaces and healthy, mature tree canopies are important to integrate the Site within the existing neighborhood character. By integrating naturalized stormwater management systems, urban agriculture and recreation, the future re-development of the Site will support a rare opportunity for the District to showcase innovative models for environmentally sustainable development.


-  Open Space to be enhanced
-  Trees



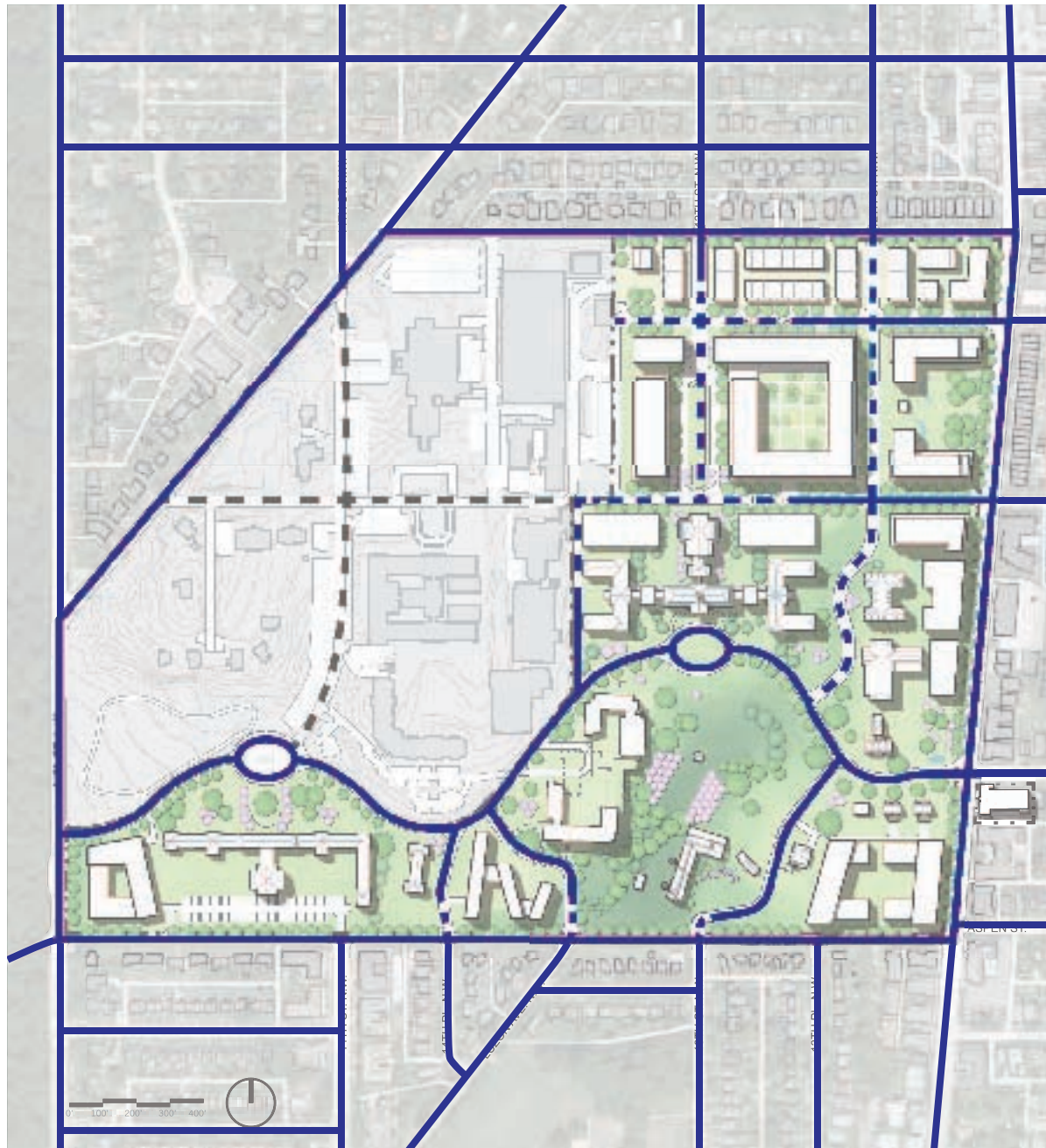
Exhibit 4-85: Preserve Historic Elements. Source: Perkins+Will.

4. PRESERVE HISTORIC ELEMENTS

The SAP celebrates Walter Reed’s legacy by reusing historic buildings and integrating cultural exhibits within the landscape.

In accordance with Section 106 of the National Historic Preservation Act of 1966, as part of the planning process for the Site, the U.S. Army has entered into the consultation process to determine what effect, if any, the transfer of the former WRAMC from Federal control may have on the many historic buildings on the campus. A nomination will be prepared by the U.S. Army for inclusion of the campus on the National Register of Historic Places. The period of historic significance proposed by the U.S. Army for the campus is 1909-1956. The buildings and landscape highlighted in “Exhibit 4-84: Preserve Historic Elements”, have been deemed by the Army to be eligible for inclusion in the National Register of Historic Places.

- Buildings
- Landscape



5. EXTEND THE STREET NETWORK

For over 100 years, the former WRAMC Site has been fenced in and isolated from the Brightwood, Shepherd Park and Takoma neighborhoods. By providing key opportunities to re-integrate existing streets and create new, multi-modal, north-south and east-west connections, the Site can be re-integrated back into the city fabric.

- Existing Street
- - - Extended Street
- · · Potential Street

Exhibit 4-86: Extend the Street Network. Source: Perkins+Will.

6. CREATE VIBRANT, MULTI-MODAL CORRIDORS

The SAP envisions creating a new sense of place through the experience at the human level. A walk down 13th Street or a drive down Main Drive should not only improve connectivity but should also reinforce the identity of the Site as a new, vibrant neighborhood. The following illustrations and narratives capture the vision for each street below:

Elder Street is the point of transition from major commercial activity fronting along Georgia to the lower-density residential uses to the west along Elder Street, shown by a color gradient from orange to blue, the change in character from more to less retail activity at grade (see “Exhibit 4-86: Create Vibrant and Multi-modal Circulation Corridors” on page 69). Retail storefronts are intended to gradually change to residential entry ways with, windows, balconies or porches as the street grade elevates from east to west. As the character along Elder becomes more residential, small neighborhood serving retail if feasible at the time of development would be a great amenity for residents. Elder Street would potentially terminate into a quiet residential court west of 13th Street, with a combination of open space, town-homes and multi-family homes.

Aspen Street will host a variety of uses from institutional to arts and creative uses, to residential and commercial. Unique opportunities for open space to intertwine between new and historic buildings will create a residential character much like it is today. Pedestrian connections with landscaped sidewalks promote a safer and more connected feeling to Georgia and 16th Street.

Dahlia Street's, central location to the Site and its potential to truly function as a ‘Main Street’ corridor with a mix of uses establishes it as the

“pulse” of the Site. Historic and new development, varying in height and framing the right-of-way, signals to Georgia Avenue that this is a major town center gateway point, with a pedestrian-scaled vibe.

13th Street, extended from Fern and terminating to the architecturally interesting, rear façade of Building 1, is intended to have a right-of-way wide enough to accommodate recreational open space along the center, with new mixed use buildings framing the pastoral open space, green area.

12th Street's new institutional setting is characterized by a new, curvilinear right-of-way and is set to traverse through a historic context of formal, institutional buildings in an open setting with significant greenery.

Historic Main Drive should retain its historic character, with its undulating alignment and views to historical facades, ceremonial front yards and open space along the way. As a major east-west connection from Georgia and 16th Street, any improvements to Main Drive should encourage multi-modal connectivity and, celebrate its historic relevance.

E. Cameron Drive provides minor access from Main Drive to 13th and Aspen Streets. With an intimate, narrow right-of-way traversing major open space, the setting would celebrate this area's park-like, open character, yet contribute to the active green areas between new and historic development.

“Center of the block”. These unique connector alleys and special places occur where the Walter Reed Site meets the DOS Site. The character of these areas where court or back yards or alley ways would occur should seamlessly be integrated with adjacent development, establish pedestrian and/or bike connections as feasible, and be reclaimed as safe and pedestrian-oriented new, usable, public spaces. These ‘connectors’ would provide service access to buildings, but at the same time should be designed as safe and accessible routes for pedestrians and bikes as feasible.



6. CREATE VIBRANT, MULTI-MODAL CORRIDORS

- Residential
- Retail, Residential, Commercial Mix
- Community Park or Campus Setting
- Major Retail Activity
- Institutional Setting
- Park-like, Open, Historic Main Drive
- E. Cameron Drive
- "Center of the Block"

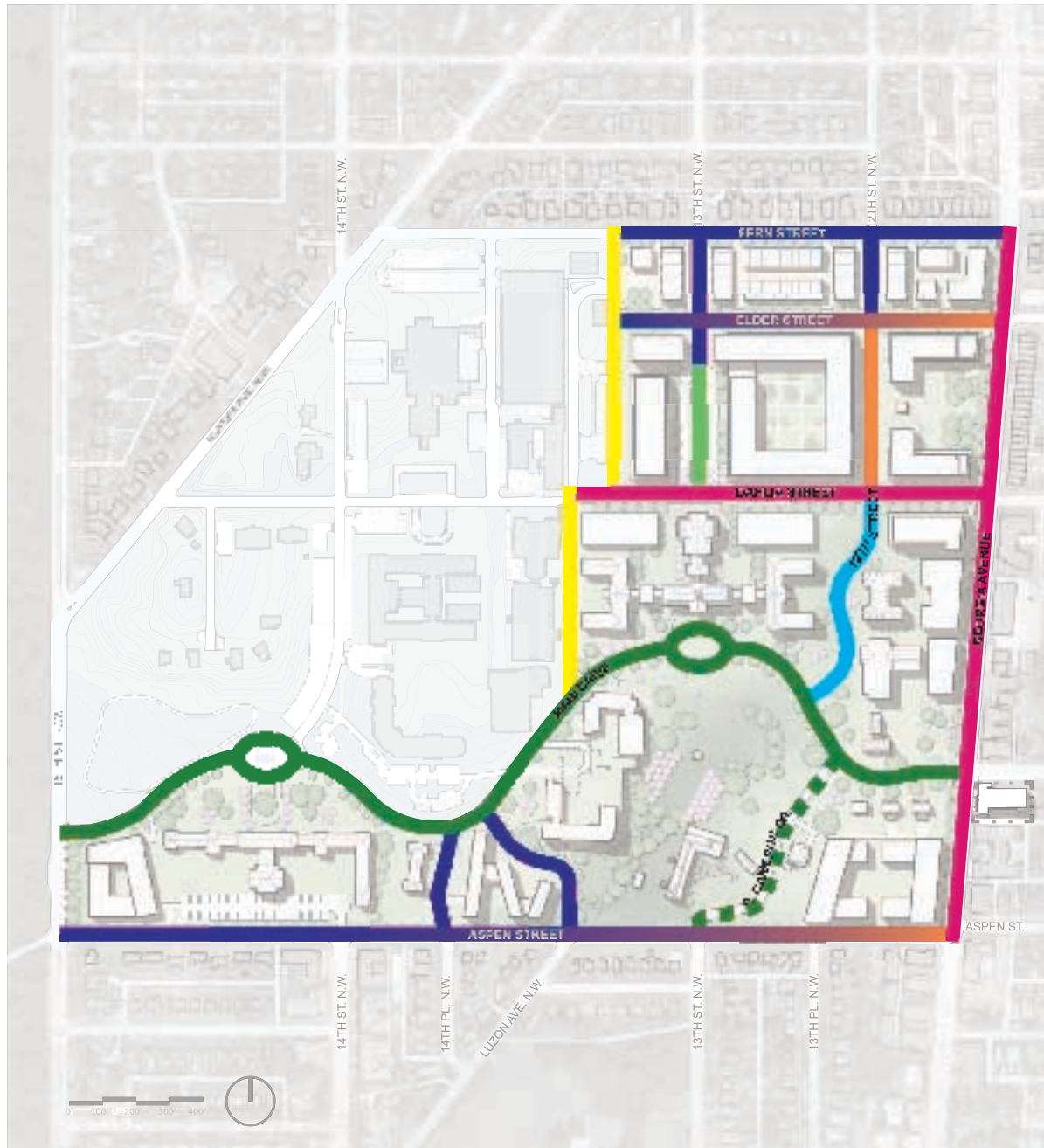


Exhibit 4-87: Create Vibrant and Multi-modal Circulation Corridors. Source: Perkins+Will.

7. INTEGRATE SUSTAINABLE STRATEGIES

The redevelopment of the Walter Reed Site, following its history of healing, presents an opportunity to reimagine a large-scale campus-like development as an environmentally, economically and socially sustainable new urban center. The District is committed to supporting the creation of a highly sustainable new community. The SAP supports a regenerative project through a three-pronged strategy: 1) preservation and adaptive re-use; 2) community integration; and 3) environmental regeneration. Significant potential exists for: establishing a shared, bio-mass co- or tri-generation utility plant; generating stormwater management at a level that could generate retention credits; exploring Photovoltaic (PV) farming; strategically targeting urban agriculture; and the re-exploring of the passive cooling systems originally developed for the former WRAMC over 100 years ago.

Sustainability Goals

The SAP incorporates the following specific goals included in the Reuse Plan:

- Net-zero energy by 2030; net-positive energy by 2040
- Existing buildings: ASHRAE 90.1+30%; New buildings ASHRAE 90.1+34%
- +100% renewable energy
- 100% grey water reuse by 2020
- 50% landfill waste reduction by 2020
- 100% zero waste commitment by 2030
- Food and yard waste composted on-site or within approximately 30 miles
- 100% recyclable material
- +100% cool roof/green roof commitment

- Implement multi-modal modes of transportation

Sustainable Energy Systems

The sustainable strategies for the development of the Walter Reed Site include a goal of net zero site energy by the year 2030 and carbon positive by the year 2050. As these terms are sometimes misunderstood, an explanation of all the terms and goals are included in the Reuse Plan.

All of the energy systems will be connected to a central energy management system for monitoring and control. The energy management system will allow the performance of the various energy systems to be tracked to assure that energy goals are being achieved, to identify malfunctioning elements, to adjust system operation to optimize performance, and to bill the users appropriately.

Preserve and Adapt Innovatively

Preservation and reuse of the Site's historically significant structures and landscapes provides a foundation for the sustainability vision. Reusing existing buildings is inherently more sustainable as it saves the waste and energy associated with demolition and new construction. Reuse will be coupled with innovative strategies for additions and renovations. The narrow floor plates of many of the historic buildings are well suited to natural ventilation and daylighting strategies. Mechanical and electrical systems and equipment can be upgraded to high efficiency systems. The campus-like environment and large scale of the Plan allows centralized and shared utility systems not possible with smaller developments. The significant open space and natural topography of the Site can be utilized to manage stormwater runoff. This balanced approach honors the Site's history while aspiring to the highest standards of a sustainable future.

Reintegrate with the Community

For the last hundred years the Walter Reed Site has been fenced off from the neighborhood. With its return to the District, an unparalleled opportunity exists to further high performance initiatives by integrating the Site with its surroundings in a way that promotes sustainability in the surrounding neighborhood.

The Walter Reed Site can serve as an example for the community and a way to educate a larger audience about sustainable practices.

Regenerate the Environment

Just as research at the Site once advanced the healing of the wounded, the Site itself can advance the capacity to heal the natural environment by testing regenerative solutions. Regenerative design represents the leading edge of sustainability and its highest aspirations – the creation of buildings and places that can have a net positive affect on the ecosystems of which they are a part. Whether the Walter Reed Site becomes regenerative in parts or as a whole, it is the standard to which this Site should aspire.

The sustainability standards adopted in the development could include the best practices of today but also look forward to set the standards of tomorrow. As the rebirth of the Site unfolds over the next several decades, the opportunity exists to set a high standard of sustainability for the District of Columbia and a model for the rest of the country to follow.



Sustainable Opportunities

For the last hundred years, the Site was internationally renowned as a center of innovation for medical research. There is an opportunity to build on this reputation and refocus the Site towards innovation in sustainable development. Furthermore, the transformation into a sustainable site echoes the same changes happening in health-care from acute episodic care to chronic and long term care.

Existing Building Space

The Walter Reed Site has 4.1 million square feet of existing building stock with a variety of uses, of which a third has some historic value and will require innovative adaptive reuse strategies. As for non-historic buildings at the end of their useful life, they present an opportunity for materials reuse and recycling through careful deconstruction.

Open Space

The Site has large expanses of open space and can provide a significant public amenity to the community. Native vegetation also provides opportunities for natural stormwater management without an increased irrigation burden.

Topography

The Site topography is largely unchanged and approximately 50% pervious. Water naturally drains towards the southern portion of the Site where Cameron Creek was once above ground. The slopes and drainage patterns of the Site can be harnessed to filter stormwater.

Transportation

The Takoma Metrorail station is located near the Site. Numerous bus lines service the Site and a potential streetcar development may serve the Site in the future. Existing transportation sharing programs such as Zipcar and Capital Bikeshare

can be brought onto the Site to reduce occupants' reliance on private vehicles and create a truly multi-modal community.

Separate Storm and Sewer System

The Site has separated sanitary and stormwater systems which greatly facilitates progressive stormwater management practices. Although, the Site still feeds into the city's combined sewer system, opportunities exist to exceed the District's requirements.

Power Generation

The opportunity exists to leverage the existing campus power generation and distribution system to implement a central energy plant that could use a cogeneration or tri-generation system. Additional potential for on-site energy generation exists through the use of photovoltaics and solar hot water systems.

Cooling and Heating

The cooling and heating requirements for the entire site are centrally provided from buildings in the north and south respectively. Systems are still in place to continue and perhaps to expand on this shared generation.

Teaching Sustainability

As the current users leave and new uses arrive, a new audience will naturally come to appreciate the Site. This presents an opportunity to continually educate users about sustainable practices within a living laboratory and at work within an everyday setting.



Figure 4-88: Urban Agriculture (example). Common Good Farm, DC. Source: <http://www.flickr.com/photos/christinboggs/sets/72157626780055856/detail/>.



Figure 4-89: Rain Garden in Lansing, MI. Provided by Wiles Mensch Corporation - DC.



Figure 4-90: Potential Stormwater/Water Feature (example). Tanners Springs Park, Portland, OR. Source: <http://fabulousportland.com/2010/02/19/sunshine-makes-me-happy/>



7. INTEGRATE SUSTAINABLE STRATEGIES

The exhibit below illustrates sustainability strategies—such as, rain gardens, photovoltaics, green roofs and skylights—that could be applied at the northern area of the Site as shown and throughout the rest of Site as well. This area of the Site has substantial space below grade available for reuse due to the projected demolition of hospital Building 2. Central utilities could be located underground with open space amenities above.

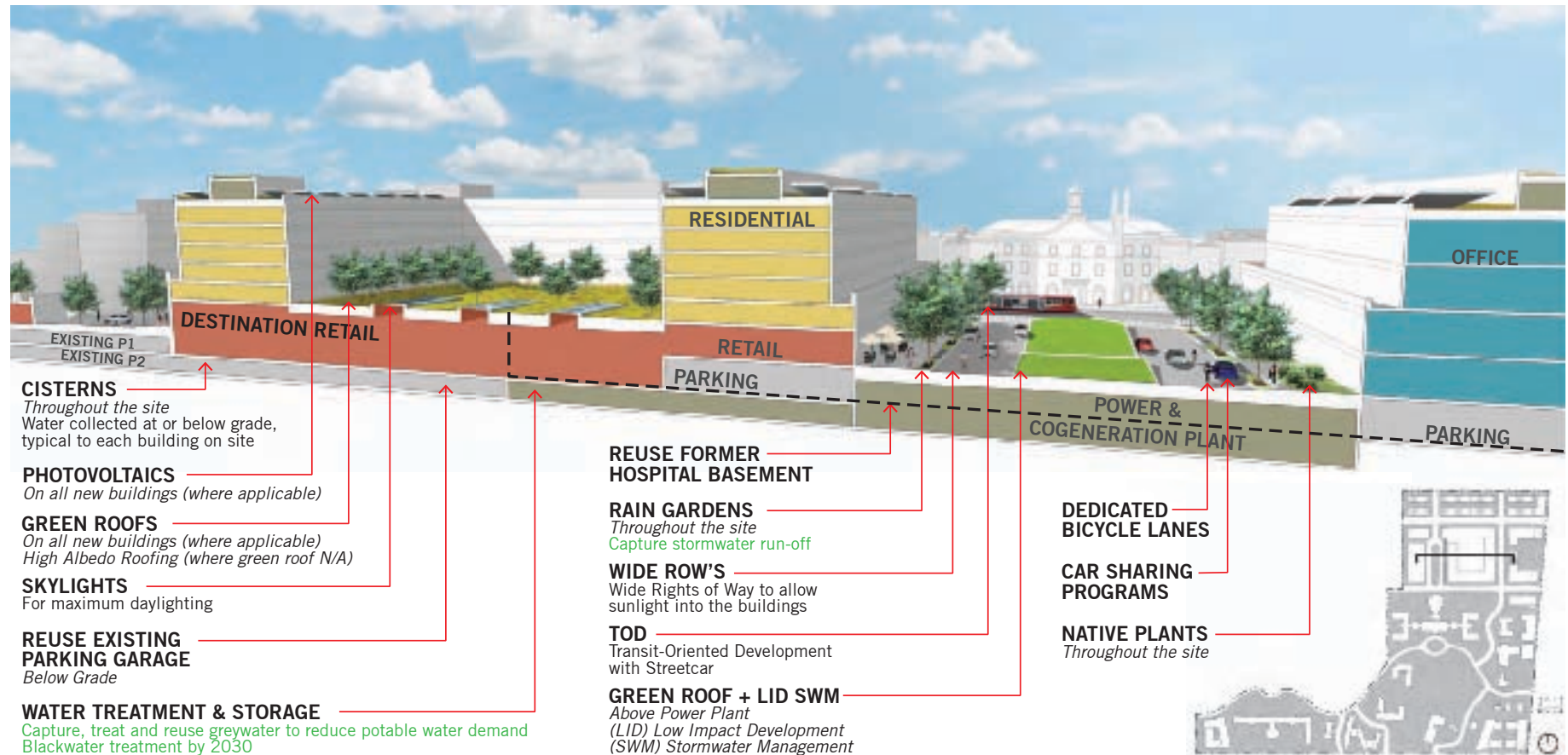


Exhibit 4-91: Sustainable Framework. Source: Perkins+Will.



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