Chapter 27
Beyond the Bars: Landscapes for Health and Healing in Corrections

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Abstract Correctional facilities in the United States are stressful social environments within stark institutional settings. They are a unique category of red zone because they do not result from a sudden disturbance to the ecological or social landscape at the scale of a city or nation-state. Rather, they are intentionally constructed spaces that reflect red zone characteristics and as such, they contain the intense, potentially hostile areas and time periods that characterize red zones. Although these settings are experienced by millions of inmates and staff every day, the restorative and therapeutic benefits that the surrounding landscape could provide are rarely given careful consideration by individuals involved in their planning, construction, or administration. Research has shown that gardens and natural settings may be physically and psychologically beneficial for inmates and prison staff in terms of reducing stress, reducing recidivism rates, and improving overall health outcomes. This chapter discusses the potential benefits of prison gardens given available research. Two long-running garden programs, The Children's Garden at Bedford Hills Correctional Facility and the GreenHouse Program at the Rikers Island Jails, are discussed as well as the elements that help foster the successful design, implementation, and maintenance of gardens within correctional facilities.

Keywords Prison Gardens in the United States • Prisons and therapeutic environments • Bedford Hills correctional facility • Rikers Island Jails • Female inmates and children • Horticultural therapy and prisons • Corrections officers and health • Inmates and health

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Landscape architect Amy Lindemuth draws from her experience helping to design and maintain gardens in two different correctional facilities to report on the ways in which such programs help inmates and staff, and to suggest design principles for future prison gardening projects. In so doing, she draws attention to a different kind of red zone—one that does not result from a sudden disturbance or disaster but that similar to other red zones, is characterized by intense, potentially hostile areas and time periods, and that, through family ties, impacts a large network of individuals beyond the prison walls.

Healing gardens and landscapes have rarely been considered as a relevant feature for inclusion within correctional facility design despite the large population of people living and working in these stressful settings. Landscapes that are intentionally designed to be therapeutic can provide restoration from stress and mental fatigue and opportunities for greater therapeutic transformation (Ulrich 1984, 1991; Hartig 1991). Although they cannot solve all the health and stress-related issues associated with these environments, they can soften some of their effects and improve the ability of individuals to cope with life inside and outside the security fences. They can offer spaces for inmates to reflect on the circumstances that brought them into the corrections system and, for the mentally ill who make up 16 % of the United States prison population (Bureau of Justice Statistics 2001), gardens can help manage behavioral symptoms exacerbated by the sterility, tension, and alienation of their surroundings. For staff, gardens can provide a moment of relief from stress and the constant vigilance they maintain to keep safe from harm (Rhodes 2004).

Since the 1970s, prevailing cultural and political attitudes regarding prisons and jails in the United States have focused on punitive measures rather than methods for rehabilitation. This approach fails to address the needs of inmates who will re-enter the community and helps promotes a cycle of recidivism that costs billions of dollars annually (Public Safety Performance Project 2007). Further, this approach contributes to generating a working environment that is noted for its high stress, burnout, and stress related illness (Morgan 2009). Prison environments can offer more in terms of rehabilitation and restoration to inmate and staff populations than they often do. The effect could be significant for staff and inmates and positively impact the community outside the prison complex.

I became interested in corrections after taking a series of undergraduate courses in medical anthropology, taught by Professor Lorna Rhodes at the University of Washington, focused on the culture of institutions and cultural constructions of health and mental illness. Eventually I worked as a research assistant for Professor Rhodes while she completed ethnographic work among inmates living in secure housing units in Washington State prisons. It was at this time that I began to see the effects the corrections system has on those who live and work in prisons and jails and the repercussions this system has on the social fabric of communities across the United States. This work gave me a new perspective on health and the role physical environments play in our physical and psychological well-being.

As a graduate student in landscape architecture, my interest in therapeutic landscapes and corrections led to a thesis project at the Monroe Correctional Complex in Monroe, Washington, designing a large courtyard garden for staff and inmates

within a unit for mentally ill offenders. I also worked as a volunteer on the design and construction of a garden for mothers and their children at the Bedford Hills Correctional Facility in New York State. These experiences gave me insight into the concerns and perceptions of custody staff regarding green spaces in their facilities, and furthered my understanding of the cultural and psychological constraints unique to the field of corrections.

As a practicing landscape architect, this knowledge and my work on several justice projects has led me to continue evaluating approaches for establishing green spaces within prisons and jails. Two case studies presented in this chapter provide examples of typical issues that surround landscape design in corrections. It is my hope that observations from the corrections context will be useful and applicable in broader red zone contexts. A discussion of these challenges, and strategies for successfully addressing them, follows.

Corrections: Far-Reaching Influence

The United States corrections system is a daily reality for millions of Americans. With over two million people incarcerated in the United States today, the US has the highest prison population rate in the world, 756 per 100,000, compared to the world prison population rate of 145 per 100,000 (Walmsley 2009; US Department of Justice 2008). Other statistics reveal a system that includes millions of people beyond the incarcerated who are part of the corrections system, including family members and individuals working in the industry. The United States Department of Labor reports that approximately 500,000 corrections officers were employed during 2006, but this statistic does not account for the tens of thousands of physicians, mental health counselors, administrative support and facilities personnel, and other individuals who spend their week working in prisons and jails (US Department of Labor 2009). Nor do these statistics capture the complex, far reaching influence the corrections industry has on the family, friends, and other community members directly and indirectly affected by the corrections system.

Corrections facilities are a unique category of red zone because they do not result from a sudden disturbance to the ecological or social landscape at the scale of a city or nation-state. Rather, they are intentionally designed and constructed spaces that reflect red zone characteristics and, as such, they contain the intense, potentially hostile or dangerous areas and time periods that characterize red zones (see Tidball and Krasny, Chap. 1, this volume). Similar to combat areas, staff and inmates both feel they are potential targets for assault and each maintains constant vigilance to stay safe from harm. The potential for weapons and violence are daily realities. This exercise is mentally taxing and a persistent source of stress in an environment that is extremely mundane day-to-day and often visually bleak.

Although corrections complexes are perceived as closed, self-contained facilities, most people eventually leave these places and bring their physical and psychological experiences back to their communities. For staff, this is a daily routine.

Staff and former inmates interact with their children, spouses, friends, and associates who may rarely, if ever, enter a corrections facility, but who may experience the effects of living or working in one by association. In this regard, the boundaries of prisons and jails are psychologically permeable, and like other red zones, the psychological effects of their physical environments can represent a disruption to living patterns at the individual, familial, and community level. Thoughtfully designed landscapes in prisons and jails can offer a counterpoint to the intensity and boredom of these facilities and can help mitigate some of the negative psychological impacts of living or working in these environments. Unfortunately, the potential to achieve therapeutic benefits using prison and jail open spaces is not widely considered by individuals involved in the planning, construction, or administration of these complexes.

Contemporary planners and designers of corrections facilities tend to focus on architectural features and management strategies that lower costs while reducing or eliminating negative inmate behavior. Since the 1970s, the direct supervision model and other similar design approaches have used strategies that de-institutionalize and normalize the interior environment. These strategies include open day rooms where inmates move freely and interact directly with officers, replacing bars with security glass, increased natural lighting, moveable furnishings, carpeting, and improved air quality systems (Tarricone 1991; Cramer 2005). These approaches greatly reduce or eliminate violent assaults on staff and fellow inmates and result in a safer, less stressful work and living environment (Cramer 2005). They also result in less long-term wear-and-tear on materials, lowered need for staffing, and reduced maintenance, which translates to lower costs (Wener 1995; Cramer 2005).

These interior architectural strategies are clearly positive and may have long-term impacts on the mental and physical well-being of staff and inmates. Yet, this approach addresses one facet of corrections facilities – individuals' daily experience of their interior environment. The social ecology of corrections is complex and requires multi-pronged approaches that assist individuals with immediate distress, healing from past transgressions, and developing techniques for maintaining their mental health when they encounter new challenges both within the corrections community and communities outside the facility. Within this context, attractive, visually complex exterior landscapes, and associated opportunities for inmate involvement in landscape management, e.g. gardening, provide an additional, relatively low-cost design strategy for mitigating the effects of living and working within corrections facilities.

Benefits of Landscapes and Gardens Within Corrections Environments

Past research demonstrates that naturalistic settings may offer benefits in terms of stress reduction and improved mental states within corrections environments. In several studies conducted within United States correctional facilities, access to

views out of the prison, and the quality of these views, have been shown to have a measurable influence on the behavior and psychological outlook of inmates and staff. Moore (1981) and West (1986) showed that views out from prison cells have a significant impact on the physical well-being of inmates. Moore evaluated the number of sick-calls among nine cell blocks containing over 2,600 men. Among the findings was a correlation between the view quality out of a cell and the number of sick-calls to the infirmary. Inmates with exterior views to farmland and forests were less likely to visit the infirmary than those individuals with interior views to the prison yard (22.9 % with exterior views versus 28.4 % with interior views). Using Moore's methodology, West later correlated the number of sick-calls to the type of exterior views from inmates' cells. This study showed that inmates with a higher percentage of naturalistic elements visible from their cell make fewer sick-calls than inmates with views dominated by the built environment. Another study by Spafford (1991) suggests that view quality within a prison setting affects staff perceptions and overall stress levels. Her research conducted at two Illinois prisons suggests that staff felt calmer when the facility offered more visually complex views. Sixty-one officers were surveyed and results showed a lower probability of nervousness, irritability, and annoyance among staff when the facility's landscape was perceived as spacious and attractive. Thus, these results suggest that having access to attractive, visually complex views can improve the physical and mental health of staff and inmates and ultimately may have an immediate, wide-spread impact on the well-being of the corrections community.

Participation in creating green spaces may provide deeper, long-lasting emotional and psychological benefits in comparison to observing green spaces. Lewis (1990) identifies two modes of experiencing vegetation: observational and participatory. Viewers engage with vegetation in an observational mode of interaction when they feel no personal responsibility for the plants. This mode of interaction occurs frequently within nature settings or in viewing landscapes. In contrast, plants within a garden are experienced in a participatory mode because their care requires individual responsibility. The nurturing that occurs at this intimate scale allows for a more intense experience than that of viewing a landscape. While Lewis maintains both modes benefit well-being, he clearly indicates a different kind of restoration or healing is possible through gardening.

In the observational mode, staff and inmates can experience restorative benefits in terms of stress reduction and restoration from mental fatigue through views of a garden (see Wells, Chap. 7, this volume). Inmates can experience gardens in the participatory mode through propagating, cultivating, and maintaining garden vegetation. This intimate and prolonged interaction with plants in the garden can provide opportunities for reflection and self-regulation of emotions (see also Okvat and Zautra, Chap. 5, this volume). Further, the positive impacts the garden may have on inmates' psychological state may reduce abusive behavior and ultimately benefit staff who are often the targets of these assaults. Fewer assaults can lead to decreased stress for staff and help mitigate stress and stress related illnesses.

Several long-running garden programs have noted positive long-term outcomes for participating inmates. Rice (1993) investigated post-release outcomes for 48

participants in the San Francisco County Jail's horticulture therapy program, aptly named the Garden Project. His analysis showed that inmates benefited from involvement in the program both during incarceration and post-release. Participants reduced negative or self-destructive behaviors in several ways including reduction in illegal activities, fewer friendships with criminal associates, limited reliance on damaging familial relationships, less drug use, and an increased desire for help. Psychological benefits included higher self-esteem and reduced anxiety, depression, and risk-taking behavior. According to Catherine Sneed, the program's founder, Garden Project participants are 25 % less likely to return to jail as non-participants (Jiler 2006). The GreenHouse Program on Rikers Island in New York City has seen a reduction in the recidivism rate from 65 to 25 % for program participants (Jiler 2009). Recidivism reduction is significant given that state spending on corrections reached $49 billion in 2007 (Public Safety Performance Project 2007). Staff also benefit from enhanced landscapes. Officers posted to GreenHouse have commented that being in the garden was relaxing in addition to having an observable calming and positive effect on inmate behavior (Rikers Island corrections officers, 2005, personal communication with the author).

The above studies, while important, are preliminary, and the results merely *suggest* that there is a positive relationship between having access to visually engaging landscapes and health outcomes for corrections staff and inmates. However, rigorous research and publications focused specifically on this relationship remain sparse. Access to corrections facilities is understandably restricted. Researchers are limited in their choices regarding the use of typical research protocols such as selecting subject populations and establishing control groups. Subject populations are often determined by the custody chain-of-command and the sample size may be limited based on security parameters. Post-release research is compromised by poor response rates from former participants who are preoccupied with pressing issues such as finding housing and remaining sober. While additional studies on this topic are clearly needed to firmly place a priority on including engaging landscape spaces within corrections, this research will likely remain challenging due to the unique constraints of working in corrections settings.

The available research discussed above suggests that gardens within correctional facilities help reduce stress among staff and inmates when the visual quality of the landscape is complex and engaging. They can also help inmates become productive community members post-release if inmates are actively involved in the garden's care. Further, individuals interacting with garden plants for prolonged periods of time, whether through active gardening or quiet contemplation, may have the opportunity to experience significant, long-term emotional and psychological changes. Landscapes must have restorative properties – extent, compatibility, fascination – to offer therapeutic benefits. The degree to which these attributes can be achieved is partially determined by the richness and diversity of the materials and plantings within the garden (Hartig 1991; Ulrich 1991; Kaplan 1995). To achieve this complexity, garden designers working in a corrections setting must understand and address several factors. These include the historical context of the site, the physical context of the garden within the facility, degree of advocacy for the project, security

concerns and requirements, frequent changes in prison personnel and leadership, and the impact of longer time frames on project implementation. Two contemporary gardens examine these issues in greater detail.

The Children's Center Garden, Bedford Hills Correctional Facility

Bedford Hills Correctional Facility (BHCF) is the largest prison for women in New York State and the only maximum-security facility for women, with approximately 63 % of inmates serving time for a violent offense (Women in Prison Project 2007). Located an hour north of New York City, BHCF has a legacy of innovative and experimental programs that is embodied by the Children's Center, a program initiated over 30 years ago by Sister Elaine Roulet of Catholic Charities Diocese of Brooklyn (Ames 1996; Palmer 2005). On average, 70 % of the approximately 800 BHCF inmates are mothers (Women in Prison Project 2007). The main goal of the Children's Center is to help inmates preserve and strengthen relationships with their children during their incarceration. This process is aided by a nursery, parenting center, day care center, prenatal center, and child advocacy office. The programs continue to receive funding through Catholic Charities Diocese of Brooklyn, but also benefit from donations and strong volunteer support from surrounding communities. Support from these and other groups was instrumental in establishing an outdoor garden within the facility for Children's Center programs and continues to play an important role in its continued maintenance and vibrancy.

For years, the Children's Center imagined transforming a courtyard adjacent to the Visitors' Room into an outdoor space for mothers and their children. Strong support from Toni Campoamor, then Director of the Children's Center, Mary Bostwick, Program Coordinator, and Libba Claude, an outside volunteer who raised most of the required funds for the garden, gave the project momentum. In 2003, BHCF contacted University of Washington Landscape Architecture Professor Daniel Winterbottom who worked with the facility and the Children's Center to develop a design. Superintendent Elaine Lord was particularly encouraging and progressive in her thinking about the garden project. Her support and encouragement for the project among state-level administrators were critical factors that helped move the design through custody review. After a final design was approved, Winterbottom and his volunteer team spent the first two weeks of June 2005 building the garden, which opened in July of that year.

The garden includes arbors, glider swings, planter boxes and beds, play equipment, a half-court for basketball, picnic tables, and a diverse selection of shrubs and groundcovers with mature and newly established trees. Most of these elements are often viewed as security risks by custody staff, depending on their location in the garden and the garden's location within the facility. Tall arbors and trees can be used to climb over security fences; lush planting beds can conceal contraband, particularly drugs. Some features are also seen as amenities for inmates. BHCF officers

expressed these concerns during construction, but realized that the garden's location in the middle of the BHCF complex minimized perceived security risks – inmates leaving the garden are still within several layers of security. Staff also felt that the benefits for inmates' children outweighed potential for contraband or perceived privilege for inmates. Generally, officers feel that while inmates deserve punishment, their children do not (BHCF corrections officers, 2005, personal communication with the author).

The garden is accessible to any inmates with visiting children 17 years and under and an officer must be posted in the garden when it is open for use. Other inmates and visitors access the garden visually through the Visitor Center windows. Except during inclement weather, the garden is used throughout the year and includes a range of programmed activities. Most notable is the Center's summer program wherein children stay with a foster family in the community for several days or weeks while visiting their mother each day at BHCF. Most of these hours are spent in the garden which continues to be highly maintained with support from Children's Center staff, volunteers, community garden clubs, and the BHCF horticulture program (Bobbi Blanchard, Children's Center Director, 2009, personal communication with the author).

The original incarnation of BHCF as a women's reformatory left a legacy of reform through education and training – an established history of programming that has continued into the present. Due to this legacy, the project was not considered unusual within the overall framework of the institution by the administration. Strong advocacy for the project from inside leadership and outside volunteers helped the project obtain approval from upper levels of the state corrections department. As the garden has matured, continued support from the administration and outside community help it continue to function as originally envisioned.

The GreenHouse Program, Rikers Island Jails Complex

The GreenHouse Program at the Rikers Island Jails Complex is located in Flushing Bay just north of LaGuardia Airport in New York City. Since 1936 when the city constructed its first jail on the island, facilities have grown to 10 separate detention centers. These jails range from maximum to minimum security and house from 16,000 to 20,000 inmates, both men and women, at any given time (Dominguez 2005; Jiler 2006). Because Rikers Island is a jail and not a prison, the majority of inmates, about 12,000, are detainees – individuals awaiting trial or court dates, or who were denied bail or cannot pay it. In contrast to BHCF, most inmates will spend a limited amount of time within the complex, anywhere from a few months to a year, before being released or sentenced and transferred to a prison upstate.

In 1996 the Horticultural Society of New York (HSNY) began the GreenHouse Program, a jail-to-street program providing inmates at Rikers Island horticulture

training and work experience in the design, installation, and maintenance of gardens. The 2-acre garden is located between two jail facilities in a secured area surrounded by a 10 ft cyclone security fence. Male and female students work and attend classes in separate shifts during different times of the day. The only individuals entering and leaving the site during the day are GreenHouse students, two officers assigned to this post, and HSNY employees, including Hilda Krus, the program's director since 2008.

The garden's restricted access limits the number of individuals who experience the garden, but also allow it to contain features that would be perceived as security risks in other contexts within the jail complex. The space is a series of lush shrub beds, flower borders, and vegetable gardens interspersed by built structures including arbors, post and rail fences, birdhouses, a gazebo with waterfall features, pagoda, greenhouse, and a building used as office and classroom. Walkways are constructed of gravel, brick, and other materials found on the island or donated from outside. Animals, including Peking ducks and Guinea hens, have been introduced over the years, adding an animal husbandry element to the program (Rikers Island corrections officers, 2005, personal communication with the author; Jiler 2006).

The GreenHouse garden, like the BHCF garden, has a strong programming framework. Horticulture classes are primarily taught in winter when conditions become inhospitable for outdoor activities. During this time, inmates also construct birdhouses, bat boxes, planters, and other wood features for the GreenHouse garden, as well as for city schools and parks (Jiler 2006). In addition to maintaining and expanding the garden, students grow plants for schools and other public entities including libraries in low-income neighborhoods. Vegetables grown at GreenHouse are donated to cooking classes offered at the Rikers jails and also to local homeless shelters. Much of this effort is facilitated through partnerships with other HSNY programs including, AppleSeed, GreenBranches, and GreenTeam (Dominguez 2005; Jiler 2006).

GreenHouse students are eligible to participate in HSNY's post-release, aftercare program, GreenTeam. GreenTeam is the 'street' portion of the jail-to-street program, which offers paid horticultural internships to inmates upon release. Interns work on public and private gardens and open spaces through contracts HSNY receives via a competitive bidding process, and install 'learning gardens' around the City's branch libraries, which are used for educational programming, literacy classes, and year-round community workshops. Beyond the immediate security of having a paying job, GreenTeam also provides individuals with a work history, professional skills, and the flexibility to attend classes and drug programs, and to address housing or other needs individuals typically face post-release. The success of GreenTeam is apparent by the number of individuals the program has supported over the years, but also by the recidivism rate among participants – less than 10 % return to jail. This is a laudable statistic given that the recidivism rate for Rikers Island Jails averages 65 %, slightly lower than the national average of 67 % (Jiler 2006).

Lessons Learned

Programming and Its Beneficial Role

Strong programming aids inmates and staff by providing prolonged experiences in a garden or landscape and a framework for meeting individual goals. Clear goals, and spaces to accommodate them, can improve the physical and psychological benefits available from a garden. Both gardens at BHCF and Rikers Island Jails are closely aligned with a program that allows a variety of activities to occur within the site which aids in restoration. The garden at BHCF includes passive spaces for quiet interaction among mothers and children while also providing active space for play. Similarly, the GreenHouse garden includes several distinct garden spaces and styles that facilitate the instruction and learning of horticulture and also quiet reflection. This lack of ambiguity facilitates increased engagement among garden participants who see the space as a calming respite from everyday prison life that is in sync with personal, achievable goals.

Opportunities and experiences offered through careful programming can provide tangible benefits including vocational training, motivation for good behavior, and an occupation tending the garden to alleviate boredom. These attributes give participants employable skills and allow them to enjoy successive, prolonged experiences in the garden. These long periods of time interacting with or observing garden plants allow users opportunities to experience significant long-term emotional and psychological changes. GreenHouse officers and instructors have noted that particularly difficult or combative inmates become less abusive, more engaged, and self-reflective after several weeks in the program (Rikers Island corrections officers, 2005, personal communication with the author).

The Need for Advocacy and Participation

As the garden projects at Bedford Hills Correctional Facility and the Rikers Island Jails Complex illustrate, having advocates for including more green space inside and outside the facility increases the success of the project. Garden and landscape projects within corrections are affected by current social and political relationships within and outside the facility as well as by the garden's location in time and space. Successful gardens require advocacy to get the design built and keep the site operating with its intended goals after construction. Gardens in corrections settings introduce complexity into an environment that has established rules and limitations, based on legitimate security concerns, which are intended to eliminate visual complexity as well as access to potential weapons and other contraband. Understandably, staff may be resistant to incorporating a garden because the aesthetic does not meet current ideas about acceptable landscapes and about activities within the prison that meet security requirements. It is essential to have

support from staff at multiple levels of the authority structure. Approval from a superintendent who makes daily management decisions for the facility is particularly important. These individuals are one of the primary determinants regarding the facility's programming and budget allocations and their support will make the difference between a project gaining traction or dying on the vine.

Equally important to the project's success is a clear understanding of officers' concerns, so they can be adequately addressed in the design. Officers will feel more comfortable if they believe the project meets security requirements and ultimately keeps them safe from harm or additional challenges in their workday. The best likelihood of obtaining this kind of custody 'buy-in' is to include staff in the design process. Staff participation is critical to understanding security needs for the space. Officer input can assure that the design adequately addresses security requirements and can help establish legitimacy for the project within the ranks of the officer corps. Yet, incorporating staff in the design process often faces challenges due to internal politics and limits placed on staff's time.

Custody staff, including officers, sergeants, lieutenants, and captains, and superintendents, receive intense social pressure from colleagues and superiors to be strict custodians of prison security and protocol. Gardens are often viewed as a privilege and security risk that make the job of custody staff more challenging and dangerous. Superintendents that allow gardens at their facility risk being viewed as lenient on inmates by their superiors and custody staff. One way to address this issue is by showing that a garden or landscape program is beneficial to the facility in ways that are distinct from inmate benefits. Projects that demonstrate cost-effectiveness and produce services for the facility such as food that will supplement other operations budgets can help administrators justify approval of the project, explain its need to staff, and generate enthusiasm and wider legitimacy throughout the custody chain-of-command (Jiler 2006).

Participation by inmates is also desirable and important for the design, but can be challenging to obtain unless the garden is part of an approved program such as GreenHouse. Otherwise, custody staff is usually reluctant to allow civilians to interact with inmates due to concerns that civilians are easily manipulated and will ultimately come to harm. Many corrections facilities provide training sessions to volunteers and other non-custody staff that address these risks and provide strategies for working with inmates. Attending these sessions can help alleviate custody staff concerns.

Maintaining a Short, Efficient Project Schedule

A tight design and construction schedule can be critical for project success. Political conditions within corrections facilities can change dramatically from one visit to the next. One common occurrence is the sudden change in custody leadership that can occur following elections and new appointments to state corrections departments. Leadership shifts can result in undesirable changes to the project that may compromise

its long-term success. For instance, inmates or staff initially allowed to participate in design development by a previous superintendent may be denied by a new superintendent. This scenario was true for the BHCF garden design and will be a challenge for any project that involves a long design and construction process. Adhering to a tight design and construction schedule will help ensure that the garden is built before leadership changes can take place. It is also advisable for designers to visit the facility often during the design and construction process, and limit time between visits, so they maintain rapport with staff and up-to-date knowledge of the facility's political climate.

Establishing an Appropriate Location

The level of landscape complexity in terms of plants, layout, and features is partially determined by the location of the garden within the corrections facility. The site location of both the BHCF and GreenHouse garden has a significant impact on what activities and design elements are permissible. Both gardens are located in secured spaces accessible to specific members of the inmate population – inmates with children under 18 at BHCF and horticulture students at Rikers Island. These small groups are screened for contraband upon entering and leaving the garden site and are comprised of inmates who have been classified as non-violent offenders. From a custody viewpoint, these garden locations and the inmates who use them pose fewer security risks. These factors allow both gardens to have a higher level of complex features such as heavily planted areas, mature trees, and built structures that would not be favored in other locations within the facility. The paradox is that these elements strengthen the therapeutic opportunities available in the garden, but also limit the number of inmates who experience them due to their restricted access.

It is possible to have more engaging, complex landscapes in areas of the facility that have wider inmate access if a close partnership is established with the superintendent and custody staff. Custody staff will view various locations within the same institution differently in terms of security. For instance, institutions that house inmates with different custody levels can have significant variations in their security requirements for different courtyards within the same facility. Decisions regarding activities and design elements within a garden will be made according to the level of security risk perceived by staff. It is imperative to work closely with the superintendent to identify potential areas within the facility for gardens and other landscape projects and to have a clear understanding of the security issues associated with each location.

Conclusion

There are many ways that the prison environment can be improved to 'make a difference' for both staff and inmates. Gardens and other outdoor spaces can serve a unique role in greening the corrections red zone, whether programmed or not,

in that they can be available to everyone. Views into aesthetically engaging outdoor spaces appear to be a simple, low-cost method correctional facilities can implement to improve the health and psychological well-being of staff and inmates. In addition, gardens and other thoughtfully programmed outdoor spaces can provide an important counterpoint to institutional life for both staff and inmates. They can offer opportunities for deeper psychological transformation and help alleviate the hostility and intensity of prison and jail red zones. Outside the prison fences, programmed gardens have shown potential to save tax-payer revenues by providing low-cost job training, reduced healthcare costs for inmates and staff, reduced recidivism rates, and reduced operating costs through food production and other sustainable site features. Most notably, gardens in prisons and jails can offer a dose of normalcy in environments that are dominated by hard surfaces, regimentation, and abnormally demanding social interactions. Helping individuals feel less 'institutionalized' when they leave these facilities will not only have positive results for taxpayers, recidivism rates, and staff and inmate health outcomes, it could ultimately make for healthy, safer, more resilient communities.

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