



AIA Academy of Architecture for Justice

SUSTAINABLEJUSTICE2030: Green Guide to Justice

November 17, 2010

Green Guide to Justice

This white paper is a proposition for the role of the justice system in contributing to the continuing viability of our society. Intended to complement other public initiatives with the year 2030 as the planning horizon, we aim to articulate a vision for how green justice buildings can serve a green and sustainable justice system as a foundational element of a sustainable society. As architects, our planning and design efforts are framed by the vision of our clients; this paper is intended to illustrate a vision for the year 2030 that is holistic and elevated in aspiration to create a more just and sustainable society.

With widespread acceptance of shared responsibility for the environmental health of our planet comes a growing linkage between sustainable design, social justice, and economic development. This triple bottom line is the full measure of the effectiveness of the justice systems that serve our communities.

For the buildings that support the justice system—courthouses, detention centers, and law enforcement facilities—this linkage is manifested in missions that go beyond traditional reactive responses to proactive problem-solving that directly affects the planning and design of facilities. Using US Green Building Council (USGBC) Leadership

in Energy and Environmental Design (LEED) New Construction (NC) and Neighborhood Development (ND) as points of reference, the Academy of Architecture for Justice of the American Institute of Architects (AAJ/ AIA) has developed this white paper. “Green Guide to Justice” is intended to provide architects and planners the tools needed to help clients connect building design to the goals of a sustainable community, social justice, and economic development. Our intention is to define the long term vision rather than to focus on immediate “practical” fixes, trusting that the incremental steps will be worked out at the local level in unique and specific ways.

The LEED certified building is a non sequitur in a non-sustainable context. The Green Guide to Justice is intended to be a supplement to the US Conference of Mayors Climate Protection Agreement and a model for similar green guides for other public infrastructure building types. It is also a supplement to various technical references and guides that focus upon security planning, design and construction, or other specialized issues, and is not intended to replace or conflict with them. This vision for a justice system in the year 2030 is based on principles and practices that contribute to the sustainability of our society and protection of the planet.

Sustainable communities require a justice system with processes, facilities, and operations to support a continuing viability.



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The Contributions Occur at Three Scales:

A vision for a 2030 Justice System is one that defines its mission as helping a community to solve the problems that threaten the sense of well being so important to a healthy and purposeful society.



1 The Scale of Community
The purpose of the justice system is defined as protecting public safety by channeling deviant behavior into acceptable norms so that all citizens can have meaningful roles in their communities. This philosophy is foundational and transformative, emphasizing treatment over punishment, and focusing on improved outcomes rather than retribution.

2 The Scale of Building
Structures supporting the justice system are sited, constructed, and operated to maximize resource utilization and reduce consumption and pollution generation—to create a healthy, net-positive impact on the community and the environment.

3 The Scale of Personal Experience
The physical needs, health, dignity, and human potential of all who come in contact with the justice system are respected and given opportunity to flourish. This applies equally to staff, detainees, visitors, service providers, media, jurors, and court support agencies.



People, Planet, and Prosperity

The justice system plays a crucial role in sustaining community life by providing services from public safety to dispute resolution; the activities of the system require human resources, energy, water, and numerous other resources to operate; and the arrangement of its physical facilities within communities also significantly affects the resource consumption of individual justice buildings and the system as a whole. While sustainability is often assumed to mean reduced environmental impact, an emerging body of thought proposes a broader scope encompassing “three Ps”: People, Planet, and Prosperity. One frequently cited definition of sustainability is “the ability to indefinitely continue to do into the future what is currently being done today.” As it currently operates, our justice system falls short of a truly sustainable definition—it cannot continue to be the same for a long period of time.

The goal of investing in justice systems that help make all communities places where people can live in safety and with dignity, immediately seems more sustainable. In the long run, the trust that is essential between our communities and the justice system must be enhanced in order to sustain People and Prosperity. For our society to sustain itself into the future we must offer all members of our communities equal access to justice.

The justice system is a key part of achieving and maintaining a productive, secure, dignified life in all communities. The location, size, and accessibility of justice facilities are key to making justice services sustainable in terms of people, planet, and prosperity. Each building project is an opportunity to transform the relationship of the justice system and the communities it serves, as it becomes more efficient in the use of resources.

While focusing on the unique characteristics of law enforcement, courts, and detention is important, even more useful is consideration of the coordination of these different branches of government to focus on the best interests and long term viability of the communities they serve.



While sustainability is often taken to mean reduced environmental impact, an emerging body of thought proposes a broader scope encompassing “three Ps”: People, Planet, and Prosperity.

Efficient use of resources means doing more with less, which is a key principle of sustainability. As many observers note, “the most sustainable building is the one that never gets built.” All other things being equal, a building of 50,000 square feet uses half as much energy as one of 100,000 square feet. Accordingly, sustainable justice systems strive to do more with their facility’s square footage, using their buildings to their best potential.

Information technology is facilitating the move to virtual provision of services, especially in areas such as online records and electronic filing, allowing the amount of built space and resource use, formerly needed for these services to shrink dramatically. Many communications with the community can also be handled virtually, for example, assembling a jury to reduce or even eliminate space needs, trips, and associated costs. Alternatives to detention and incarceration such as bail adjustment, remote monitoring, problem-solving courts, and restorative justice programs increasingly allow facility planners to ask “how small a system can we operate?” rather than “how many beds do we need?”

Achieving a sustainable justice system requires whole-systems thinking, meaning that individual pieces of the system cannot be optimized in isolation, either from one another or from the justice system as a whole. Whole systems thinking provides the opportunity to solve many problems more effectively and at lower cost. For example, speedier trials and supervised community-based alternatives to incarceration are quicker to deploy and cheaper to operate than building new jail beds to hold people awaiting trial. Mobile, on-the-spot booking by police can reduce space needs for detention while also allowing officers to spend more time in the field, making operations more efficient overall.

Within the goal of transforming the justice system to greater sustainability, each building project is an opportunity to transform the relationship of the justice system to the communities it serves, as it becomes more efficient in the use of resources.



Decentralizing new models of justice services into the communities provides even further benefits such as reduced travel distances and greater utilization of resources. The average new suburban building (e.g. courthouse, police headquarters, or office building) often generates more carbon emissions in the automobile transportation needed to reach it than in the operation of the building itself. Rural correctional facilities create even larger transportation-related carbon footprints. Accordingly, locating police stations, for example, near the communities served to reduce travel distance of squad cars—or better yet, to enable foot and bicycle patrols—reduces the carbon footprint and fuel costs of the police department more than the design of the station itself alone can achieve. In a time of increasing budget pressures on all government agencies at all levels, these approaches also allow justice systems to respond to calls for leaner operations.

Distributed locations whether physical or virtual can also provide the community with greater access to, respect for, and participation in the justice system. Court systems serving large geographic areas consider satellite locations co-located with local government or businesses, to allow community members speedier access to services and reduced travel distances. Sharing parts of facilities for community use—whether a designated “community room” in a police station or making a courthouse lobby available for public functions—gives the community that owns it a high return on the investment in the physical facility, and also provides a way for community members to interact positively with the justice system. Sustainable justice facilities offer the community a broader and more user-friendly set of options for when, where, and how to access the justice system.

Sharing parts of facilities for community use – whether a designated “community room” in a police station or making a courthouse lobby available for public functions—gives the community that owns it more return on the investment in the physical facility, and also provides a way for community members to interact positively with the justice system.



The social, economic, and physical costs of crime can be reduced along with the operating costs of the facilities if policies are guided by a sustainable model.

Youth

Evolution within the justice system itself also supports the movement toward more sustainable communities. Juvenile Justice has shifted in recent decades toward solution-based practices that rely heavily upon community support to provide the connective components within a continuum of services. Numerous organizations have evolved to focus on reform and rehabilitation initiatives within the juvenile system, identifying the right placement for youth, incorporating evidence-based design and operational philosophies, multi-systemic therapies, and more successful offender transition back into society. The Sustainable Justice 2030 criteria outlined for Law Enforcement, Courts, and Detention/Corrections include successful, achievable goals for adults as well as youth within our communities.

Community Solutions

Some of the key strategies to foster sustainable community relations for justice system design are defined as:

- **Whole-system efficiency**—providing the greatest public safety while using the fewest resources and creating the least negative community impacts.
- **Dematerialization**—substituting remote communication or monitoring programs for in-person transactions, e.g. virtual appearances for pretrial interview court hearings and motions.

- **Unbundling**—separating functions to allow for alternative uses or programs.
- **Decentralization**—providing services in multiple locations closer to users, rather than in one location, e.g. community re-entry facilities.
- **Co-location**—providing multiple services in one location, e.g. police services at fire stations.
- **Shared use**—providing community access to portions of facilities e.g. community meeting rooms in courthouses, police stations, detention facilities.

“An effective 2030 justice system operates with teamwork and coordination,” according to policies directed by a Criminal Justice Commission with representatives from law enforcement, courts, and detention/corrections. The inter-related activities of each of these branches of the justice system together can reduce crime, speed trials case resolution, and reduce incarceration rates. The social, economic, and physical costs of crime can be reduced along with the operating costs of the facilities if these policies are guided by a sustainable model.



Sustainable Strategies

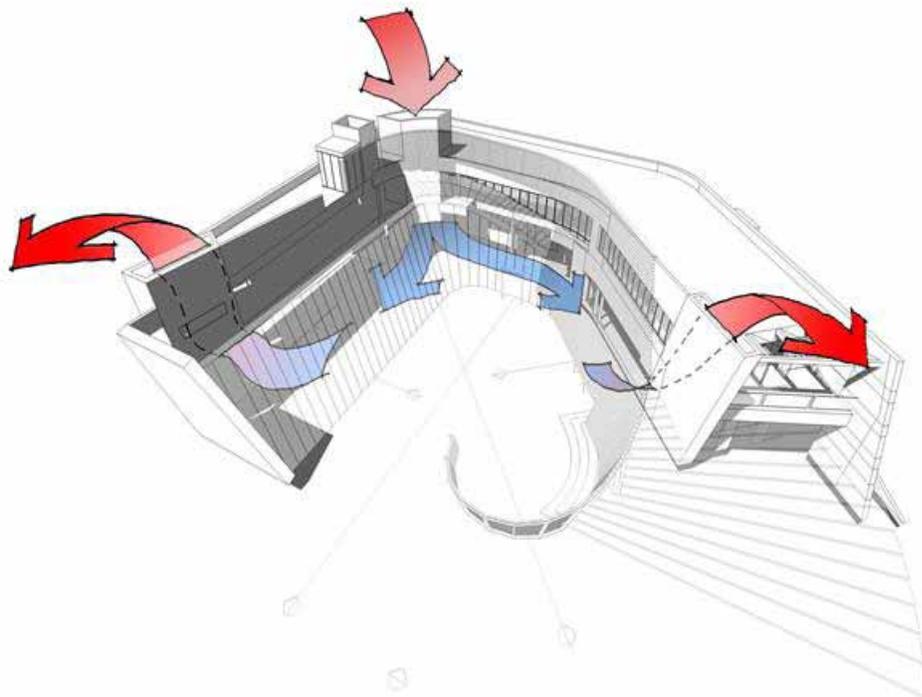
- 1 SUSTAINABLE JUSTICE SYSTEM:**
 - Organize around public service
 - Leverage technology to support efficient user interaction
- 2 SUSTAINABLE COMMUNITY:**
 - Engage community support for alternatives to incarceration and high-security facilities
 - “Right size” facilities to optimize space utilization and function
 - Co-locate justice functions and provide multi-use spaces available for public off hours use
 - Locate close to civic facilities, multi-use developments, transit, and other walkable destinations
- 3 SUSTAINABLE USER:**
 - Provide a successful journey through the justice system to prevent a return visit
 - Reduce stress by providing daylight and views to nature from all occupied spaces
 - Make buildings health-enhancing, pedestrian-friendly
- 4 SUSTAINABLE BUILDING:**
 - Construct efficient buildings powered by renewable energy sources
 - Conserve water with fixture selections and landscape design
 - Plan for “plug-in” green upgrades
- 5 SUSTAINABLE ENVIRONMENT:**
 - Plan for future change of use
 - Implement virtuous circle of recycling/composting/gardening

One sustainable goal is to incorporate garden spaces to provide an interactive and virtuous circle of recycling/ composting/ gardening.



Sustainable Principles

- 1 SUSTAINABLE JUSTICE SYSTEM:**
Emphasize positive outcomes
- 2 SUSTAINABLE COMMUNITY:**
Engage community ownership by balancing resources with long-term needs
- 3 SUSTAINABLE USER:**
Provide environments and processes that guide positive behavior, reduce stress, and promote productive engagement
- 4 SUSTAINABLE BUILDING:**
Minimize resource consumption in design, construction, and operations
- 5 SUSTAINABLE ENVIRONMENT:**
Reduce/eliminate waste stream



Sustainable Innovation in the Design Process

Sustainable Justice

To encourage innovation in energy-saving and smaller footprint justice facilities, the committee is also developing “benchmark” definition for USGBC LEED evaluation criteria that will:

- Guide the qualification submittal/review process for Prerequisites and LEED points for specific project features.
- Provide language available to practitioners to communicate sustainable design achievements and establish precedent for point rewards.

The criteria is measured by “doable, verifiable, measurable” design features that may be proved by studies compared to baselines, as determined by subject matter specialists.

The following are a few examples of proposed prerequisites:

Around-the-Clock Operations

Detention and Law Enforcement facilities operate 24 hours per day, 365 days per year— certainly more resource consumptive than a typical building. However, the efficiencies of sustainable systems offer “pay back” four times faster than an ordinary building.

- Appropriate building space configuration can offer zoning efficiencies of building systems such as HVAC and lighting.
- These facilities also include residential components that require a high volume plumbing fixtures – various low-flow shower head, vacuum systems & low/dual flush mechanisms for toilets can achieve significant efficiencies.

Building Volume Ratio

- Court facilities require a greater higher volume ratio than office buildings to accommodate the higher ceilings of courtrooms, large assembly areas, as well as the increased volume needed to provide a public entry with visual orientation to a majority of public services from the lobby. Reducing the number and size of courtrooms and/or eliminating the jury assembly area through operational methods can reduce this number.
- Detention facility building volume also includes significant area required for safe and secure circulation throughout the building and within programmatic spaces. The design for these facilities includes a premium for wide corridors; a direct supervision model for a housing unit includes a premium for circulation with bedrooms opening onto the dayspace.

The Three Practice Areas Where the Justice System Interacts with Citizens Include:

1 Law Enforcement
The agency most in contact with the life of the community and the effects of deviant behavior, the first responder to safety concerns.

2 Courts
The branch of government responsible for directing the response to conflict resolution and providing the “due process” in deciding on the response to deviant behavior.

3 Detention/Corrections
The agencies responsible for housing the persons accused or convicted of crimes and of shaping their ability to return to society as productive citizens.

It is a fundamental principle that the missions and operational activities of each of these institutions be coordinated in a complementary way to serve the objectives of a sustainable society.

The social, economic, and physical costs of crime can be reduced along with the operating costs of the facilities if these policies are guided by a sustainable model.



Sustainability—Law Enforcement

Scale of the Community

Law enforcement agencies serve a vital role in meeting societal needs for public safety and community well being. The range of services delivered extend well beyond the core activity of “law enforcement” and the agencies which deliver them serve widely varying community contexts.

Officers are called upon for assistance in every manner of personal, natural, domestic, or community crisis—large and small, hazardous and trivial. Law enforcement personnel are most usually the first point of contact for assistance in challenges and threatening situations facing citizens anywhere.

As a result, a law enforcement presence in the community and the capability to swiftly respond throughout the community is a fundamental requirement for operations. At the same time, the diversity in service area geography and their population densities brings with it a broad range of response techniques, with a correspondingly broad range in the types of facilities needed to support them. This can include an urban “network” of facilities, dispersed to function within a cluster of defined service delivery zones, and centralized support facilities serving a dispersed network or a single service zone. Rural facilities serving large geographic areas with dispersed populations bring their own unique needs. This diversity in the range and types of services required by law enforcement agencies, suggests that no single prototype

facility that will be appropriate for all conditions. Nonetheless, certain principles to support the goals of sustainability can be implemented in all situations.

The most significant trend in operational strategies over the past 35-40 years is “Community Policing.” This philosophy embraces not only the physical presence of law enforcement within the particular community setting, but also the increased communication between citizens and law enforcement professionals.

This approach recognizes that police personnel depend upon information provided by the public, not only for the identification of a situation requiring a police response but also for information that will be crucial to successful resolution or prosecution. Proponents of Community Policing seek to encourage and maximize the willingness and likelihood that citizens within the community will share information with the police. This extends not only to the realm of events that have already occurred, but the arena of crime prevention.

This strategy has implications for the manner in which services are delivered and, correspondingly, the requirement and allocation of energy resources. Within the range of new developments which are made possible by “new” technologies, there has also been a return to “old” ways of doing things. The traditional officer “walking a beat” has come back and taken on a new form as bicycle patrol,

Law enforcement presence and the capability to swiftly respond to the community being served is a fundamental requirement for operations.



Community Policing seeks to encourage and maximize the willingness and likelihood that citizens within the community will share information with the police.

placing police personnel in more direct contact with citizens in a pedestrian environment. Another version uses battery-charged personnel conveyance equipment to accomplish similar results. Each of these modes of placing law enforcement personnel in the environment are alternatives and supplements to conventional squad car patrol and are not only energy conserving alternatives but also more effective ways of building trust-based cooperative relationships essential to the community policing perspective.

The applications of new technologies which support law enforcement operations at the community level have taken many forms in recent years and the evolution of further developments going forward is without limit. Among the recent examples, cameras with video recording backup have been located in areas having high service call volume—both as a deterrent to criminal activity and as an aid to detecting and prosecuting such activity. These “outdoor” applications extend what has commonly been done with cameras in bank lobbies or commercial establishments for the same reasons. These extend law enforcement surveillance capability without a corresponding increase in vehicle patrol to accomplish an equivalent result.

Yet another significant development made possible by rapidly developing technologies in recent years is the extensive availability of cell phones with photo and video capability within the general population. Citizens everywhere are able to observe and report situations requiring law enforcement response. Police have always depended primarily on (such cell phone) citizen reports, which have increased exponentially. This supplements what police are able to observe through their own patrol activities and reduces reliance upon vehicle patrol resulting in significant energy savings and pollution reduction.

When arrests are made by police personnel in the community environment, or investigations are under way which may lead to an arrest, technologies are now available and will continue to emerge, which offer energy savings. The use of these technologies offers reduced energy consumption for vehicle movements and can result in reduced facility footprints with corresponding energy savings. Examples include computers in the patrol vehicle that allow reports to be written in the field, reducing the need for report writing space in the facility. Similarly, fingerprinting of suspects and criminal history searches can be accomplished in the field, potentially reducing the need for

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transportation and reducing secure holding needs. Many other examples can be cited and the list will only increase as innovation is made possible by emerging technology.

Other techniques have emerged which offer energy saving alternatives to conventional “call and response” by police vehicles. Among these, police personnel are now frequently assigned to locations within the community as their “duty station”. This makes them immediately available to those in need of services and makes them more available to receive information from citizens, which assists in crime prevention activities. Examples include deployment of police personnel at schools, shopping centers, fast food restaurants, housing developments, transportation centers, etc. This kind of staff deployment can have energy saving implications for facilities by decentralizing roll call, lockers and other support needs to these locations, allowing the central facility for the agency to be smaller and reducing energy requirements and carbon emissions that come with transportation between support and the duty location.

A further development is occurring at the Community Level with recently developed technologies that has great potential for energy savings, as it relates to citizens’ need to access a law enforcement facility. Traditionally, the public has traveled to a facility to make a report, obtain a copy of a report, or request information. The internet now supports electronic document

transfer, website information posting and audio-video communications, and thereby, the physical movement formerly needed for these transactions can be greatly reduced. This reduces vehicle use, reduces carbon emissions, reduces needed parking, and results in more efficient system operation.

Scale of the Building

To complement the changes and potentials at the Community Level, the challenge at the Building Level is to incorporate design features that support operational objectives while attaining 2030 Sustainability goals.

The array of available sustainable design strategies for law enforcement facilities is no less than that of any other public building type, but also includes opportunities that are unique to police facilities. Unlike most other buildings, police facilities are in operation twenty-four hours a day, seven days a week, through natural disasters and other hazardous conditions. Portions of a facility are in use eight hours per day, other portions may be in use sixteen hours and twenty four hours, and yet others may have intermittent requirements for the lighting, temperature, and humidity features associated with occupancy. Energy savings can be realized by the utilization of systems which bring these different areas “on line” only during the times in which their particular environmental conditions are actually needed.

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Unlike most other facility types, police facilities are in operation twenty-four hours a day, seven days a week, through natural disasters and other hazardous conditions.

Also, operational efficiency and energy savings will be realized through the grouping of functions that have high volume in and out traffic, and locating these at a level having direct access to the outside to reduce the need and frequency of vertical transportation utilization.

Consistent with the “community policing” operations strategy, opportunities should be explored which combine law enforcement facilities with other community located public facilities. Where such “co-location” is feasible and appropriate, energy savings may be realized by shared mechanical support systems, shared public parking, shared reception, or other shared features. Additional savings may come with a reduced “envelope”, or exposure to heat loss and heat gain.

Also consistent with community policing, the decentralization of facility components to locations within distinct service areas reduces travel distances and corresponding energy usage for the public being served. As an example, a local police service center can receive citizens who wish to report or discuss a problem with law enforcement personnel. Access to reports and payment of fines can also be localized or provided online, and the movement associated with this activity can be significantly reduced.

As architects and engineers address the design and delivery of sustainable police facilities for today and tomorrow, every avenue needs to be explored...including even those that may not be within what may be considered to be conventional. With changing demographics and changing definitions of police service areas, consideration could be given to modular, de-mountable and re-locatable police facilities. This would bring flexibility, not only for building configuration and expandability, but even its actual facility location...and bring energy savings avoiding the abandonment of one building for the construction of another.

Scale of the Personal Experience

Consistent with its mission to support the delivery of services to the public, the police facility should present an open, safe, and inviting experience to the user. The use of “unobtrusive” security, integrated into the building design features, will serve to “normalize” the building character and image. With high levels of traffic in public areas and extended hours of usage in staff areas, materials should be durable and not require frequent replacement. The use of flooring and wall covering materials with recycled content can help to serve this goal.

Public waiting areas should have ample natural light, reducing stress and the reliance upon artificial illumination. Correspondingly, staff work areas will be well served by these same features, promoting increased staff productivity, improved working conditions, and reduced staff turnover.

And consistent with good facility planning, the public areas should be grouped to minimize the need for circulation within staff areas, with security zoning limiting this access.

The challenge of sustainability for Law Enforcement includes not only the building design and building systems technologies themselves, but the community context and the underlying goals for the delivery of law enforcement services to the public. In this quest, it is critically important that these issues be addressed not only by architects, engineers and other environmental design specialists, but also by law enforcement professionals and representatives of the public that is being served. In short, a truly “collaborative” approach will result in a more sustainable community.

Sustainability Strategies—Law Enforcement

- 1** **SUSTAINABLE JUSTICE SYSTEM:**
 Balance centralization with decentralization to support operational efficiency and community access.

Locate close to other justice functions (courthouse, detention facilities) to create system synergies and reduce travel distances and management time.
- 2** **SUSTAINABLE COMMUNITY:**
 Locate facilities convenient to public transportation and downtown districts, services, and civic centers.

Create community connections through school resource officers, community facilities, youth centers, and the field.

Share meeting facilities with other law enforcement organizations and community activities on a scheduled basis where this does not conflict with their use by the primary law enforcement agency and such spaces are located outside of security.
- 3** **SUSTAINABLE USER:**
 Use technology to minimize need for physical transactions such as virtual accident reports, access to records, and interviews.

Create stress-relieving environments for officers, staff, and the public by providing views to nature and natural light into occupiable spaces.
- 4** **SUSTAINABLE BUILDING:**
 Zone the building to conserve energy when not in use.
- 5** **SUSTAINABLE ENVIRONMENT:**
 Re-use existing facilities.

Reduce energy consumption of patrol vehicles through use of bicycles, Segways, and electric vehicles where possible. Create more accessible officer/public relationships.

Sustainability—Courts

The American courthouse is a symbol of our nation's democracy, and the values and aspirations of a community. Historically, it is located at the physical center of a community. Doctrines from *The Guiding Principles for Federal Architecture*, by Daniel Patrick Moynihan, Hon. AIA, former U.S. Senator (N.Y.), 1962, includes the statement that a courthouse "will reflect the dignity, enterprise, vigor, and stability of the American Government" with "qualities which reflect the regional architectural traditions of that part of the Nation."

Scale of the Community

Different approaches are utilized in the American judicial system to determine response to conflict and deviant behavior and to deliver justice: traditional due process, and innovative problem solving, through use of alternate dispute resolution (ADR), e.g. mediation, and specialized courts. Many jurisdictions implement both of these approaches within their system, with the alternative approaches particularly relevant at the lower levels of court with the greatest caseload. These courts play a crucial role in the sustainability of the justice system, directing each person coming into a less punitive more therapeutic path, if possible and appropriate.

The United States has moved toward more consciously aware or "green" practices that conserve resources and reduce pollution. Further innovations seek to restore ecosystems and strive for a regenerative approach that creates new resources.

Regionalizing courts creates fewer facilities that are more operationally efficient due to consolidation of functions and less redundancy of spaces and staff; however, users may have to travel farther. The opposite approach to regional courts is to locate smaller-scaled courts closer to the communities they serve to reduce travel and maintain connections within the communities. This approach, however, would create more buildings. Therefore, it is critical to assess and balance a community's needs and priorities with the sustainable implications of the decisions.

The evolving sustainable philosophies of justice have parallels to resource utilization. Many courts have evolved from a process-oriented strategy to a more outcome-oriented and problem-solving philosophy. This approach promotes investment in the human potential of each person coming before the court. Sustainability in the courts begins with the court's mission and role in the community. Is

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the court simply a passive administrator of due process, or an active participant in addressing the needs of a community? Many courts today are choosing the more active role with a 'restorative justice' approach that engages the community and the other partners in the justice system in addressing root causes of deviant behavior and repairing harm to those affected.

Careful social and physical integration of the courthouse into the community can reap sustainable cultural, economic, and programmatic benefits.

Using Existing Facilities

Efficient and flexible utilization of an existing facility may take advantage of the civic location, connections, and surrounding support services. Existing courthouses are frequently located in iconic centralized urban locations, and retaining that location should be seen as an asset to the future use of the courthouse.

Unbundling the Courts

Unbundling and dispersal of some services into the community could lead to reduced travel time for the public users. If activities such as mediation, self help, and probation reporting could rotate between distributed community

locations, so that the spaces were fully utilized on a publicized schedule, the public would have better access to the service at a location closer to their homes.

Location

Placing or reusing a court facility with direct adjacency to a holding facility, whether a jail or police station, may have an added advantage of the courthouse not requiring a central holding facility, particularly if an existing secure transport tunnel is already in place.

Adjacency to public transit is vital to provide public access to a courthouse, and is typically more available in an urban site.

The location of the courthouse is critical to the success of this approach. The community, all stakeholders, and physical resources should be close to the court, and accessible by mass transit. The jail should be near the court and connected by a tunnel or bridge (and video links) to reduce the energy consumption and pollution created by transport vehicles. The urban role of the courthouse as an anchor to the civic district has an important role to play in the economic viability of the downtown, creating demand for office, retail, and restaurant space,

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supporting the sustainability of downtown districts often competing with suburban edge cities for investment and activity.

As an icon in the cityscape for small towns and for large cities, the presence of the courthouse in the urban landscape is an important element in the identity of a community and a source of civic pride. The presence of the courthouse communicates the values of our democracy with a message of affordable public access to the judicial process. A courthouse reflects the “solemnity, stability, vigor and enterprise” of our society, in the words of Daniel Patrick Moynihan.

Scale of the Building

The mission of the court drives operations and expression of the architecture. The building design communicates the degree to which the court is either user friendly and customer oriented, or simply an aloof and impartial administrator of due process. Sustainable courthouse design balances these two imperatives: the traditions and authority of a neutral court tempered with openness and ease of use —both are needed to address the diversity of the community fabric.

The urban role of the courthouse as an anchor to the civic district has an important role to play in the economic viability of the downtown, creating demand for office, retail, and restaurant space, supporting the sustainability of downtown districts often competing with suburban edge cities for investment and activity.



This duality shifts its emphasis depending on the level of court: an appeals court that has low levels of public use would not need the high level of public amenities that a busy family or county court would require to orient people through the building. All courts must, through the presence of daylight, increase the visibility and human comfort of occupied areas. This means that courtrooms, staff areas, and conference rooms should be day lit, whether through borrowed light or direct but controlled natural daylight.

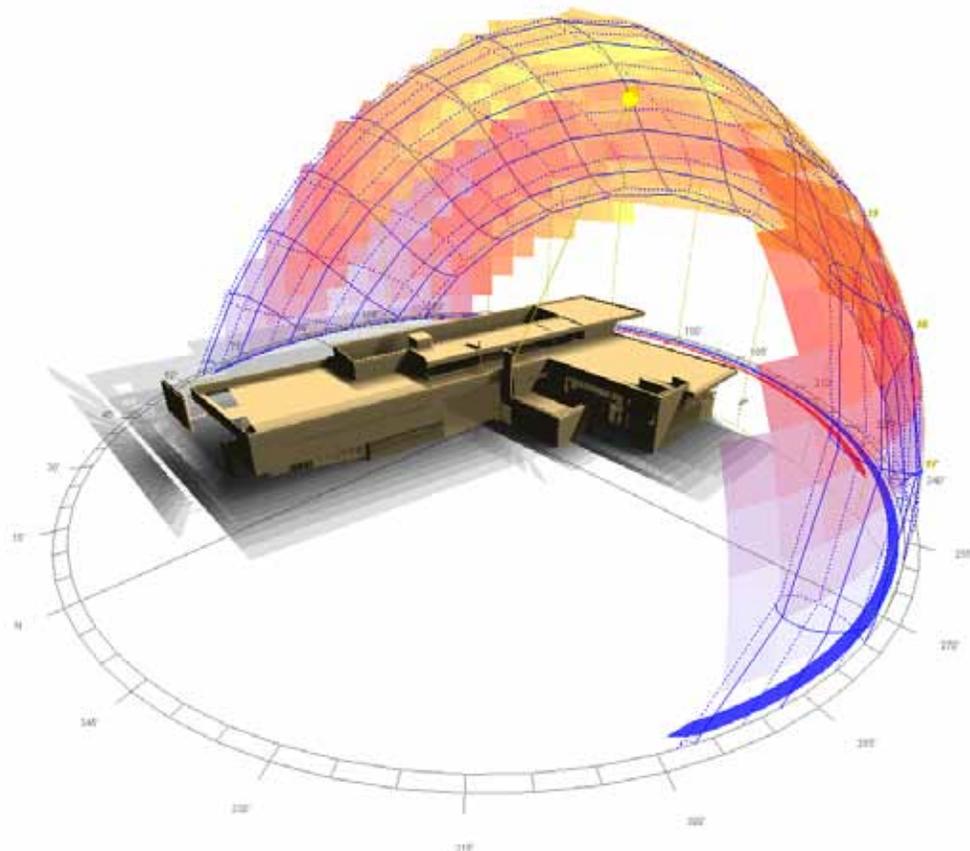
Public areas are of particular importance in the sequence of use, where after security screening, visitors must find their destination through visual cues and directory systems. A successful sustainable strategy is to place high-volume public areas and service counters at the entry level and make an open public stair

or escalator prominent in the early experience of the building, encouraging those moving up to courtroom floors to save energy and to improve their health by walking up and down stairs. Saving the cost of elevator operation and reducing the number of elevators because of the convenience of the stair is a triple bottom line success.

A court with shared services, self-service centers, interpreters, co-located support agencies, extended hours in the evenings and Saturdays, and earlier morning calendars not only creates a user-friendly, customer service-oriented facility—it also means less physical building and less transportation between facilities are required.

The potential for video arraignment is another sustainable goal.

The Sustainable 2030 Justice Facility is oriented in an east/west direction to capture sunlight during winter and guard against heat gain in the summer.



Increased flexibility of some non-secure program elements may lead to additional space reductions, particularly in high volume areas within the courthouse itself. If Public Clerk access for filing or payments can be done through an electronic portal that is on the exterior of the building or in the pre-screening area, more latitude is available for planning the overall facility.

Case-based scheduled courtrooms and collegial chambers for the judges allow intensive use of chamber space. Gathering the judges and their staff together in a suite similar to a law firm reduces the need for individual private toilets, law libraries, and dedicated support staff. Locating the courtrooms and jury rooms remote from the judges can better facilitate daylight in the design.

Court building materials should be chosen for durability, regional sourcing, and renewability. These materials enrich the visual environment and define the sustainable identity of the court. The building should be flexible to reconfiguration and rewiring, so that it can gracefully adapt to changing technologies and functions for many years to come.

Strategies for Physical Criteria

1. Save energy first.
2. Reduce courts footprint: make courts smaller, not larger.
3. Incentivize increased utilization and innovation to reward energy-saving and smaller-footprint courthouses.
4. Challenging the USGBC to recognize the unique needs of courthouse in efforts to reach sustainable goals.

Scale of the Individual

Creating a court where all the stakeholders feel safe, respected, and treated with dignity positively contributes to the individual’s experience of the system. When stakeholders (judges, lawyers, staff, offenders, victims, friends and family) do not feel safe, they are put into a stressful state; decision-making and way finding becomes more difficult; people become harder to manage; and conflicts may arise.

When one walks into the 2030 courthouse, he or she moves through a transparent entrance, through a non-threatening and user-friendly screening process, into a space illuminated by

The 2030 courthouse features a transparent entrance, a non-threatening/user-friendly screening process, and a space illuminated by natural daylight.



natural daylight, which provides clear orientation to the building. Acoustics in the space will be controlled to limit “noise.” The building and its organization will be as transparent as possible, making possible natural daylight, enhanced safety, and automatic orientation through views and light. Wayfinding will be supported with clear and flexible signage that is customer-service oriented.

The individual will feel treated with respect and dignity because diversity and regional attributes are employed in the choice of materials of the building, as well as in the artwork selected. The courthouse will be clean and safe. Safety is enhanced by clear building organization and by provision of a variety of waiting areas that are attractive, comfortable, and of human scale. Users (staff or visitors) will feel empowered by having a choice of spaces—private, public,

active, quiet. Appropriate mechanical systems save cost and energy and provide thermal comfort.

Staff, visitors, detainees will feel respected when his or her physical needs are met. Jurors will have access to and ability to control thermal comfort, natural light, and views of nature in the jury deliberation rooms – all which have an impact on stress and mental fatigue. A victim awaiting trial will feel safe and have a moment to relieve stress. Providing a space where a person can pause or restore themselves enhances health significantly. This is true for all courthouse users.

Small and well-considered details enhance a dignified experience. Feeling respected and reducing stress allows for a more easily managed and more effective process for everyone.

Sustainable Strategies for Courts System

- 1 SUSTAINABLE JUSTICE SYSTEM:**
 - Locate close to other justice components to reduce travel distances and management time.
 - Virtualize courthouse processes to minimize built space and trips.
- 2 SUSTAINABLE COMMUNITY:**
 - Locate facilities proximate to public transportation and downtown districts, services, and civic centers.
 - Expand hours of court business to increase utilization rate of spaces.
- 3 SUSTAINABLE USER:**
 - Introduce natural light into all occupied spaces, especially high stress areas.
 - Make courthouse pedestrian friendly.
- 4 SUSTAINABLE BUILDING:**
 - Design the building to be flexible.
 - Zone the building to conserve energy when not in use.
 - Schedule courtrooms for multiple judges on a case-specific basis and design collegial chambers to increase utilization of court spaces and reduce the built area.
- 5 SUSTAINABLE ENVIRONMENT:**
 - Re-use existing facilities wherever possible.

Sustainability—Detention and Corrections

Sustainable 2030: Detention and Corrections robustly contribute to the sustainability of society at three scales:

1. The scale of community, which supports public safety by channeling deviant behavior into acceptable norms.
2. The scale of building, which minimizes resource consumption and ultimately creates a net-positive impact on the community and the environment,
3. The scale of individual experience, where the physical needs, health, dignity and human potential of all who come in contact with the justice system are respected and given opportunity to flourish. This applies equally to staff, visitors, service providers, and detainees.

Sustainable Detention 2030 key decision-makers are most concerned with preserving the resource of personal potential. Time spent incarcerated is time taken from one’s potential. Therefore, Sustainable 2030 elected officials always begin the jail planning process with the question: “How small—rather than how large—should we build our new jail?” without sacrificing public safety.

Representatives from human services, the courts, detention, juvenile prosecutor, medical services, local service providers and other key

stakeholders participate in a multi-disciplinary team approach that helps to expedite cases, shorten length of stay, implement standardized intake process in order to control inappropriate admissions, expand alternatives to secure detention, and promote more timely transfer to state facilities.

Alternatives to secure incarceration exist for both the sentenced population (in the form of home detention, work release, and electronic monitoring) and the pre-trial population. Problem solving Community Courts have eligibility criteria for a pre-trial release program. Individuals who meet the criteria are diverted at the arraignment hearing instead of being sent to jail, often participating in programs that if successfully completed make incarceration unnecessary.

Another way that Sustainable 2030 justice system representatives manage detention populations is to reduce the number of admissions. One key design feature is to have an intake area large enough to hold those eligible for bail or bond or release on recognizance, so that they never have to spend a night in a cell but can leave after several hours once the proper measures have been taken and paperwork is complete. In large cities Sustainable 2030 practices have increased the percentage of the population who spend less than 12 hours in reception by almost 50%.

Sustainable Detention 2030 key decision-makers are most concerned with preserving the resource of personal potential. Time spent incarcerated is time stolen from one’s potential.



Daylight, vibrant colors, clear sightlines, climate control, and acoustic dampening create a positive staff attitude and promote a safe environment conducive to positive behavioral change in inmates.

A smaller building means a smaller footprint, with reductions in site use, materials consumption, domestic water usage, pollution generation, energy and staff costs.

Objective-based inmate classification supports the Sustainable 2030 approach to jail design and construction by identifying those inmates who require a maximum-security cell and by substituting medium-secure housing units and dormitories for the remainder of the population. The proportion of inmates assigned to maximum security and administrative segregation in 2030 is remaining steady at around 15%. The remaining 85% are housed in less costly, more normative general population. Disciplinary problems, violence, and staff absenteeism have declined year after year.

Modern jails in Sustainable 2030 are located downtown within the justice complex or adjacent to the courthouse, allowing for easy movement of prisoners using a secure tunnel or a bridge and reducing the number

of vehicle trips required from a remote jail. The jail is convenient to public transportation, a sustainable design goal and a humane consideration for families, friends, and attorneys.

Situating the jail downtown may allow for continued re-use of the old jail, bringing it up-to-date and conserving the embedded energy in the old facility. Downtown buildings have a smaller footprint than a one-story out-of town building, conserve land and have much less roof area, thereby reducing the amount of storm water run-off that has to be stored, treated, and discharged.

The Sustainable 2030 detention center is oriented in an east/west direction to capture sunlight during winter and guard against heat gain in the summer. The building itself is a narrow building wrapped around an outdoor courtyard in the shape of a “square doughnut”. The exterior of the building forms the secure perimeter and the courtyard provides a

Modern jails in Sustainable 2030 are located downtown next to the courthouse, allowing for easy movement of prisoners using a tunnel or a bridge and reducing the number of vehicle trips required from a remote jail.



daylight-filled corridor, which reduces energy consumption in a building that operates all day, every day. Bringing daylight into the correctional environment reduces stress and lifts the spirits for inmates and staff alike.

Daylight and views from the dayroom, vibrant colors, clear sightlines, climate control, and acoustic dampening create a positive staff attitude and promote a safe environment conducive to positive behavioral change in inmates, and the potential for a more successful outcome - reinforcing the interrelationship between the three scales of sustainable design; the environment for individuals using the spaces within; the building itself; and the community.

The vast majority of offenders incarcerated at the local level will be returning to the community. Sustainable detention facilities focus on successful reentry to support the sustainability of people -- by helping them to live better lives in which they are more loving, more productive, and more responsible.

Sustainable detention facilities focus on successful reentry to support the sustainability of people -- by helping them to live better lives in which they are more loving, more productive and more responsible.

Sustainable 2030 normative environments contain natural light, views, colors, natural (or at least normal) materials, personal space and control of some personal territory, along with the round-the-clock presence of a correctional officer to maintain order.



The Sustainable 2030 detention facility building is a tool that supports this mission. We now know that environment cues behavior, and research has demonstrated that inmates respond better in a normative environment than a traditional cellblock. Sustainable 2030 normative environments contain natural light, views, colors, natural (or at least normal) materials, personal space and control of some personal territory, along with the round-the-clock presence of a correctional officer to maintain order. These normative design features are directly compatible with those of sustainable buildings.

The justice “system” is complex and composed of many actors (e.g., judges, prosecutors, sheriff, county commissioners, and community-based service providers). Sustainable Justice 2030 uses a participatory approach that views jail beds as a scarce “last resort” resource—a basic tenet of sustainability—and includes representation of all actors in the criminal justice system.

The narrow building wraps around an outdoor courtyard in the shape of a square doughnut creating a secure perimeter; the courtyard created inside provides a daylight-filled corridor to reduce the energy consumption in a building that operates 24/7.



Sustainable Strategies for Detention & Corrections System

- 1 SUSTAINABLE JUSTICE SYSTEM:**
 Criminal justice coordinating council (judges, probation, detention) meet regularly and evaluate objectives to reduce number of admissions, reduce length of stay, and coordinate successful community re-entry.

Reserve high-security expensive construction for high-risk, high-need population.
- 2 SUSTAINABLE COMMUNITY:**
 Locate jail in an urban environment – closer to family, courts, attorneys – to enhance just-in-time delivery.

Providing a community resource through shared recreation (evening gym for neighborhood kids)
- 3 SUSTAINABLE USER:**
 Introduce natural light into all occupied spaces, especially high stress areas.

Make courthouse pedestrian friendly.

Technologies to reduce water usage through low-flow shower head, vacuum systems for penal toilets, low-flush or dual flush toilet and to minimize inmate movement (video visitation, including attorney-client conferences; video arraignment; and court proceedings).

Create normative environment: sunlight hits the floor of the dayroom, day light in cells, views to nature; access to outdoors, acoustic dampening.
- 4 SUSTAINABLE BUILDING:**
 Energy efficiency measures for corrections pay back 4 times faster than ordinary building

Building perimeter as secure perimeter eliminates need for fence.

Virtuous circle – rainwater plus compost from kitchen generates green jobs.
- 5 SUSTAINABLE ENVIRONMENT:**
 Reuse of existing facilities, incorporating conservation and generation of renewable energy sources.

Our New Reality

With respect to the stated objective of channeling deviant behavior to acceptable norms, I suggest that a reference be made to the use of prison industries as the single most effective tool of institutional control and prisoner rehabilitation. Yet the concept, although in use since the earliest days of the Republic, is still largely overlooked and underutilized. Most inmates at all levels of confinement, do not have access to meaningful work experience to prepare them for eventual return to society. Yet the potential is very great. For example, Federal Prison Industries has recently opened a factory to produce pv solar panels for U.S. government agencies use on government land and facilities. A feasibility study is underway to establish a capacity to convert conventional lighting in federal office buildings for LED and other advanced technology lighting systems. Also, there is broad authority to engage in agricultural production, and inmates perform landscaping and related activities for government facilities, roads, parks military bases, etc. At the least, pilot projects should be initiated to foster “green” landscaping for these applications.

The role of the courthouse throughout our legal and political history is unique. The Moyanihan study remains a landmark and is duly remembered. However, much work has been done to preserve yet modernize these that should also be acknowledged. A national survey was conducted under the authority of the National Preservation Act and many of the more than 3,000 courthouses were designated as historical landmarks. Many more have been modernized or replaced, but with the historical features preserved or honored. Yet we witnessed the disaster of Katrina in which thirteen old courthouses were destroyed along with irreplaceable records dating back to colonial times. The federal courts in New Orleans had modern backup, but the state and parish courts did not. And inmates in local lockups were often left standing in knee- to waist-high water waiting to be rescued.

Much the same can be said of our prisons and jails, with many historical landmarks still in operation long after they have passed their life cycle limits and have been fully depreciated. A number of states have invested heavily in new facilities, but too often similar commitments for staffing and programs have been sorely lacking. All the while inmate populations have steadily increased so that, with few exceptions, there is too much overcrowding, idleness and warehousing. However, long term crime trends as reported by the FBI and the Bureau of Justice Statistics, reflect steadily decreasing serious criminality. Recent revisions in state penal code sentencing formulas will also have an impact on inmate populations. But explosions in new age criminality such as cybercrime and mortgage fraud must be acknowledged and dealt with. New technology including home detention and tracking will play an increasing role. This will lead to alterations and expansion of system information technology to combat and cope with evolving criminal behavior.

Our New Reality (continued)

Finally, policing is rapidly reinventing itself to take advantage of new technology to deal with the new face of crime as depicted above. While the community policing initiatives of the past two decades have been significant, they are not alone among the most important developments, including police deployment. The evolution of enhanced 911 technology and tactics, automated field incident reporting and onboard computing also rank high. In recent years interagency fusion centers and enhanced sharing of criminal justice data bases are also making very significant improvements in the effectiveness of police activity. There are now routine, real time searches of biometrics including fingerprints and DNA, checks of prospective gun buyers, stolen vehicles and valuable property, and missing persons, especially children. More than 1,000 police departments now have bumper mounted, high speed cameras that can perform thousands of license plate identifiers in real time. Many urban area and most highways have automated surveillance camera systems deployed.

Architects and planners now must accommodate and make maximum use of this new reality.

Richard W. Velde, former Administrator of the Law Enforcement Assistance Administration



A vision for a 2030 Justice System is one that defines its mission as helping a community to solve the problems that threaten the sense of well being so important to a healthy and purposeful society. While focusing on the unique characteristics of law enforcement, courts, and detention is important, even more useful is consideration of the coordination of these different branches of government to focus on the best interests and long term viability of the communities they serve. The philosophies that drive best practices in each of these areas—Community Policing, Problem Solving Courts, and Alternatives to Incarceration—are potent drivers of innovation, which together can make our future worth living.



Our sincerest hope is that the hard work and passionate energy invested in creating this white paper reaches far beyond these words into the hearts of our communities. The committee acknowledges the efforts of the following leaders and contributors:

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We consider the [Green Guide to Justice](#) a “work in progress” and welcome thoughts and reactions from our peers – especially ideas that create a dialogue. Several industry partners are currently in the process of reviewing - we are looking forward to your thoughts, as well.

The committee acknowledges the participation and input we have received from the following reviewers. We incorporated many of their comments (please reference the documents following the [Green Guide to Justice](#)) - your invaluable feedback and opinions keep our message alive and evolving!

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